UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 8,438,062 B2
APPLICATION NO. : 11/618506
DATED : May 7, 2013
INVENTOR(S) : Rohan et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page:

The first or sole Notice should read --

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 715 days.

Signed and Sealed this
Twenty-third Day of May, 2017



Michelle K. Lee
Director of the United States Patent and Trademark Office

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/618,506	12/29/2006	Terrence Rohan	16113-0206001	5917

26192 7590 09/25/2014

FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
BROWN, LUIS A	

ART UNIT	PAPER NUMBER
3622	

NOTIFICATION DATE	DELIVERY MODE
09/25/2014	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

In re Patent No. 8,438,062 :
Rohan et al. : ON REDETERMINATION OF
Issue Date: May 7, 2013 : PATENT TERM ADJUSTMENT
Application No. 11/618,506 :
Filed: December 29, 2006 :
Atty Docket No. **16113-0206001** :

This is a response to patentee's "APPLICATION FOR PATENT TERM ADJUSTMENT UNDER 37 C.F.R. §1.705(d)" filed June 19, 2013, requesting that the Office adjust the patent term adjustment from 1,073 days to either 1,106 or 715 days. The Office has re-determined the patent term adjustment to be 715 days.

This redetermination of patent term adjustment is not the Director's decision on the applicant's request for reconsideration within the meaning of 35 U.S.C. 154(b)(4) that triggers a 180-day period for applicant disagreeing with the Office redetermination to commence a civil action in the District Court for the Eastern District of Virginia.

Relevant Procedural History

On May 7, 2013, this patent issued with a patent term adjustment determination of 1,073 days. On June 19, 2013, patentee timely filed an "APPLICATION FOR PATENT TERM ADJUSTMENT UNDER 37 C.F.R. §1.705(d)" seeking an adjustment of the determination to either 1,106 or 715 days.

Decision

Patentees do not dispute the Office's calculation of A delay of 1010 days or C delay of 0 days. At issue is the period of B delay, of overlap and of applicant delay.

Patentee correctly asserts that total applicant delay should be 756 days. A review of the calculations reveals correction of an applicant delay from 30 days to 28 days is warranted. See *ArQule, Inc. v. Kappos*, No. 1:10-cv-01904-ESH, 2011 WL 2469826

(D.D.C. June 23, 2011). As intended by 35 U.S.C. § 154(b)(2)(C)(ii), the three-month date for calculating delay pursuant to 37 CFR 1.704(b) should have been calculated from March 1, 2010, as February 27, 2010, fell on a Saturday. Thus, applicant delay did not begin until the day after the three month date, March 2, 2010. As the reply was filed on March 29, 2010, the applicant delay was 28 days. The reduction of 30 days pursuant to 37 CFR 1.704(b) is being corrected to 28 days.

Patentee further discloses that a period of reduction of 477 days should have been entered, pursuant to 37 CFR 1.704(c)(8), for the filing of an information disclosure statement on March 30, 2012 after the filing of a reply in the form of a request for continued examination (and submission) on December 9, 2010. A period of reduction of 477 days is being entered.

Total applicant delay is corrected from 281 days to 756 [28 + 90 + 477 + 56 + 105] days.

Consideration now turns to the calculation of "B" delay. Patentees respectfully contest the "B Delay" calculation on the following two alternative bases.

(i) Primary Argument: PTO erred by reducing PTA based on a request for continued examination filed after the 3-year "guaranteed" deadline. According to the decisions in Exelixis, Inc. v. Kappos, No. 1:12-cv-96 (E.D. Va. November 1, 2012) and Novartis v. Kappos, No. 1:10-cv-01138 (D.D.C. November 15, 2012), a Request for Continued Examination operates to toll the three year "guaranteed" deadline of 35 U.S.C. § 154(b)(1)(B) only if it is filed within three years of the application filing date. If filed after the three year deadline has passed, a Request for Continued Examination has no impact on PTA.

For the present patent, no Request for Continued Examination was filed during the first three years of application pendency. The Request for Continued Examination filed on December 9, 2010, therefore does not operate to reduce the "B Delay" award. As a result, the patent is entitled to 1,225 days of "B Delay", measured from December 30, 2009 (the day after the date that is three years after the date on which the application was filed) to May 7, 2013 (the date the patent was issued).

Under the primary argument, patentees assert that the periods of "A Delay" and "B Delay" overlap (i.e., occur on the same

calendar day) for a total of 373 days, from April 10, 2011 to April 12, 2012, and January 7, 2013 to January 10, 2013.

(ii) Secondary Argument: PTO erred by counting the time between the notice of allowance and the patent issue date as "time consumed by continued examination of the application." The Examiner's mailing of a Notice of Allowance on January 10, 2013, closed examination of the application on that date. Section 154(b)(1)(B)(i) of Title 35 excludes from "B Delay" "time consumed by continued examination of the application." The statute does not provide for exclusion from "B Delay" of time from the mailing of a Notice of Allowance until issuance (a period during which continued examination did not occur). Thus, no continued examination took place during the 118 day period from January 10, 2013 (the mailing date of the Notice of Allowance) until May 7, 2013 (the date the patent issued). Accordingly, 118 days of "B Delay" should have been included in addition to the 344 days accorded by the Director, for a total "B Delay" of 462 days.

Under the secondary argument, patentees assert that the periods of "A Delay" and "B Delay" overlap (i.e., occur on the same calendar day) for a total of 1 day, from January 10, 2013 to January 10, 2013.

The Office accorded 344 days of B delay (with 0 days of overlap) based upon the Office's former interpretation of rule 37 CFR 1.703(b)(1) which excluded from the amount of "B" delay the period beginning on the date of filing of the continued examination and ending on the date of the issuance of the patent. The Federal Circuit reviewed the statutory interpretation of 35 U.S.C. § 154(b)(1)(B)(i) and issued a decision regarding the effects of a Request for Continued Examination ("RCE") on "B" delay in the Novartis appeal. In Novartis, the Federal Circuit agreed with the Office that "no ["B" delay] adjustment time is available for any time in continued examination, even if the continued examination was initiated more than three calendar years after the application's filing." *Novartis*, 740 F.3d at 601. However, the *Novartis* court found that if the Office issues a notice of allowance after an RCE is filed, the period after the notice of allowance should not be excluded from the "B" delay period but should be counted as "B" delay. Id. at 602.

Pursuant to the *Novartis* decision, the USPTO has determined that patentee is entitled to 779 days of "B" delay (with 354 days of overlap). In this case, the filing date of the application is May 23, 2007, and the patent issued on January 29, 2013; thus, the application was pending for 2079 days. A request for continued examination (RCE) was filed on February 9, 2012. A Notice of Allowance issued on August 29, 2012. Under 35 U.S.C. § 154(b)(1)(B)(i), there was one time period consumed by continued examination ("RCE period"). The RCE period began on February 9, 2012 and ended on August 29, 2012 – i.e., 779 days. Subtracting the RCE period from the total number of days the application was pending results in 2079 - 203 = 1876 days. Thus, for purposes of "B" delay, the application was pending for 1876 – 1097 [i.e., 3 years from the actual filing date] = 779 days beyond the 3-year anniversary of the filing date.

There remains 0 days of overlap between A and B delay. The period after the notice of allowance is not excluded from the "B" delay period and is counted as "B" delay. This period begins after January 10, 2013 the date of mailing of the notice of allowance. As such, January 10, 2013 is not "B" delay, but is part of the RCE period. January 10, 2013 does not constitute 1 day of overlap between A and B delay.

Overall PTA Calculation

Formula:

"A" delay + "B" delay + "C" delay - Overlap - applicant delay = X

USPTO's Calculation:

1010 + 461[1] + 0 – 0 – 756 = 715

Patentee's Alternative Calculations

i) 1010 + 1225 + 0 – 373 – 756 = 1,106

ii) 1010 + 462 + 0 – 1 – 756 = 715

[1] Likewise, as "the period after the notice of allowance should not be excluded from the "B" delay period but should be counted as "B" delay," the period of B delay (not including January 10, 2013) is 461 days not 462 days. (emphasis added).

Conclusion

Patentee is entitled to PTA of seven hundred fifteen (715) days. Using the formula "A" delay + "B" delay + "C" delay - overlap - applicant delay = X, the amount of PTA is calculated as follows: 1010 + 461 + 0 – 0 – 756 = 715 days.

Patentee has **two (2) months** from the date of the Office's redetermination of patent term adjustment to request reconsideration of the patent term adjustment if patentee continues to disagree with this determination (no petition fee). This two month period is extendible under 37 CFR 1.136(a). The new/renewed request for reconsideration may be filed without any additional fee. However, patentee who responds more than two months after the mail date of the redetermination is required to pay the extension of time fee. After the period of time to respond has expired, the Office will *sua sponte* issue a certificate of correction adjusting the PTA to seven hundred fifteen (715) days.

Telephone inquiries specific to this matter should be directed to the undersigned at (571) 272-3219.

/Nancy Johnson/

Nancy Johnson
Attorney Advisor
Office of Petitions

CC: Adjusted PTA calculation
DRAFT Certificate of Correction

DRAFT COPY

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT : 8,438,062
DATED : May 7, 2013
INVENTOR(S) : Rohan et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the cover page,

[*] Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 USC 154(b) by 1,073 days.

Delete the phrase "by 1,073 days" and insert – by 715 days--

Office of Petitions: Decision Count Sheet

Mailing Month

Application No. 11618506

11618506

For US serial numbers: enter number only, no slashes or commas. Ex: 10123456

For PCT: enter "51+single digit of year of filing+last 5 numbers", Ex. for PCT/US05/12345, enter 51512345

Deciding Official: JOHNSON, NANCY

Count (1) - Palm Credit 11/618,506

Decision: DISMISSED

FINANCE WORK NEEDED

☐ Select Check Box for YES

DISMISSED

Decision Type: 551 - 37 CFR 1.705(d) - PATENT TERM ADJUSTMENT

551

Notes:

Count (2)

Decision: n/a

FINANCE WORK NEEDED

☐ Select Check Box for YES

Decision Type: NONE

Notes:

Count (3)

Decision: n/a

FINANCE WORK NEEDED

☐ Select Check Box for YES

Decision Type: NONE

Notes:

Initials of Approving Official (if required)

If more than 3 decisions, attach 2nd count sheet & mark this box

Printed on: *9/19/2014*

Office of Petitions: Routing Sheet



Application No. 11/618,506

This application is being forwarded to your office for further processing. A decision has been rendered on a petition filed in this application.

- [ ] **GRANTED**
- [x] **DISMISSED**
- [ ] **DENIED**

Patent Term Adjustments

Patent Term Adjustment (PTA) for Application Number: 11/618,506

Filing or 371(c) Date:	12-29-2006	Overlapping Days Between {A and B} or {A and C}:	0
Issue Date of Patent:	05-07-2013	Non-Overlapping USPTO Delays:	1354
A Delays:	1010	PTO Manual Adjustments:	-358
B Delays:	344	Applicant Delays:	281
C Delays:	0	Total PTA Adjustments:	715

Patent Term Adjustment History Explanation Of Calculations

Number	Date	Contents Description	PTO(Days)	APPL (Days)	Start
111	09-19-2014	Adjustment of PTA Calculation by PTO	461		0
111	09-19-2014	Adjustment of PTA Calculation by PTO	461		0
110	09-19-2014	Adjustment of PTA Calculation by PTO		344	0
110	09-19-2014	Adjustment of PTA Calculation by PTO		344	0
109	09-19-2014	Adjustment of PTA Calculation by PTO		28	0
109	09-19-2014	Adjustment of PTA Calculation by PTO		28	0
108	09-19-2014	Adjustment of PTA Calculation by PTO	30		0
108	09-19-2014	Adjustment of PTA Calculation by PTO	30		0
107	09-19-2014	Adjustment of PTA Calculation by PTO		477	0
107	09-19-2014	Adjustment of PTA Calculation by PTO		477	0
102.5	12-08-2010	PTA 36 Months	344		0.5
102	05-07-2013	Patent Issue Date Used in PTA Calculation			0
101	04-12-2013	Export to Final Data Capture			0
100	04-11-2013	Dispatch to FDC			0
99	04-11-2013	Dispatch to FDC			0
98	04-09-2013	Response to Reasons for Allowance			0
97	04-10-2013	Application Is Considered Ready for Issue			0
96	04-09-2013	Issue Fee Payment Verified			0
95	04-09-2013	Issue Fee Payment Received			0
94	02-22-2013	Finished Initial Data Capture			0
90	01-10-2013	Mail Notice of Allowance	4		74
89	01-05-2013	Office Action Review			0
88	01-05-2013	Office Action Review			0
87	01-05-2013	Document Verification			0
86	01-05-2013	Issue Revision Completed			0
85	01-05-2013	Notice of Allowance Data Verification Completed			0
84	01-02-2013	Reasons for Allowance			0
83	01-02-2013	Allowability Notice			0
79	12-26-2012	Date Forwarded to Examiner			0
78	12-20-2012	Supplemental Response		105	74
77	09-06-2012	Information Disclosure Statement considered			0
76	09-06-2012	Information Disclosure Statement (IDS) Filed			0
75	09-11-2012	Date Forwarded to Examiner			0
74	09-06-2012	Response after Non-Final Action		56	69
73	09-06-2012	Request for Extension of Time - Granted			0
72	09-06-2012	Information Disclosure Statement (IDS) Filed			0
71	04-12-2012	Electronic Review			0

70	04-12-2012	Email Notification			0
69	04-12-2012	Mail Non-Final Rejection	369		58
68	04-09-2012	Office Action Review			0
67	04-06-2012	Non-Final Rejection			0
66	03-30-2012	Information Disclosure Statement considered			0
65	03-30-2012	Electronic Information Disclosure Statement			0
64	03-30-2012	Information Disclosure Statement (IDS) Filed			0
63	01-30-2012	Information Disclosure Statement considered			0
62	01-30-2012	Information Disclosure Statement (IDS) Filed			0
61	01-30-2012	Electronic Information Disclosure Statement			0
60	12-10-2010	Date Forwarded to Examiner			0
59	12-09-2010	Amendment Submitted/Entered with Filing of CPA/RCE			0
58	12-09-2010	Request for Continued Examination (RCE)		90	52
57	12-10-2010	Disposal for a RCE / CPA / R129			0
56	12-09-2010	Request for Extension of Time - Granted			0
55	12-09-2010	Workflow - Request for RCE - Begin			0
54	06-10-2010	Electronic Review			0
53	06-10-2010	Email Notification			0
52	06-10-2010	Mail Final Rejection (PTOL - 326)			0
51	06-07-2010	Final Rejection			0
50	04-19-2010	Date Forwarded to Examiner			0
49	03-29-2010	Response after Non-Final Action		30	45
48	03-29-2010	Request for Extension of Time - Granted			0
47	11-30-2009	Electronic Review			0
46	11-27-2009	Email Notification			0
45	11-27-2009	Mail Non-Final Rejection	637		0.5
44	11-23-2009	Non-Final Rejection			0
42	02-06-2009	Reference capture on IDS			0
41	02-06-2009	Information Disclosure Statement (IDS) Filed			0
39	12-29-2006	Information Disclosure Statement considered			0
38	07-17-2008	Information Disclosure Statement considered			0
37	02-06-2009	Information Disclosure Statement considered			0
36	02-19-2009	Information Disclosure Statement considered			0
35	08-04-2009	Case Docketed to Examiner in GAU			0
34	07-29-2009	Case Docketed to Examiner in GAU			0
33	06-02-2009	Case Docketed to Examiner in GAU			0
32	06-02-2009	Decision Made by Classification Division			0
31	06-02-2009	Request for Classification Division Decision			0
30	05-26-2009	Transfer Inquiry to GAU			0
29	04-27-2009	Transfer Inquiry to GAU			0
28	02-19-2009	Reference capture on IDS			0
27	02-19-2009	Information Disclosure Statement (IDS) Filed			0
25	02-24-2009	Case Docketed to Examiner in GAU			0
24	02-19-2009	Information Disclosure Statement (IDS) Filed			0
23	02-06-2009	Information Disclosure Statement (IDS) Filed			0
22	10-10-2008	Case Docketed to Examiner in GAU			0
21	07-17-2008	Information Disclosure Statement (IDS) Filed			0
20	07-17-2008	Information Disclosure Statement (IDS) Filed			0

18	07-03-2008	PG-Pub Issue Notification	0
17	12-18-2007	Rescind Nonpublication Request for Pre Grant Publication	0
16	10-17-2007	Withdraw Flagged for 5/25	0
15	10-16-2007	Flagged for 5/25	0
14	06-26-2007	Case Docketed to Examiner in GAU	0
13	05-09-2007	Case Docketed to Examiner in GAU	0
12	03-27-2007	IFW TSS Processing by Tech Center Complete	0
11.7	12-29-2006	Information Disclosure Statement (IDS) Filed	0
11	12-29-2006	Information Disclosure Statement (IDS) Filed	0
10	02-27-2007	Application Dispatched from OIPE	0
9	02-28-2007	Application Is Now Complete	0
8	02-21-2007	Payment of additional filing fee/Preexam	0
6	02-21-2007	A statement by one or more inventors satisfying the requirement under 35 USC 115, Oath of the Applic	0
5	01-31-2007	Notice Mailed--Application Incomplete--Filing Date Assigned	0
4	12-29-2006	PGPubs nonPub Request	0
3	01-16-2007	Cleared by OIPE CSR	0
2	01-06-2007	IFW Scan & PACR Auto Security Review	0
1	12-29-2006	Initial Exam Team nn	0
0.5	12-29-2006	Filing date	0

Close Window

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 3622
Patent No.	: 8,438,062	Examiner	: Luis A. Brown
Issue Date	: May 7, 2013	Conf. No.	: 5917
Serial No.	: 11/618,506		
Filed	: December 29, 2006		
Title	: NETWORK NODE AD TARGETING		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPLICATION FOR PATENT TERM ADJUSTMENT UNDER 37 C.F.R. § 1.705(d)

Patentees hereby request reconsideration of the Patent Term Adjustment (PTA) accorded the above-referenced patent. Reconsideration of the final PTA calculation to increase total PTA from 1,073 days to 1,106 days is respectfully requested. In the alternative, Patentees request that total PTA be adjusted from 1,073 days to 715 days.

"A Delays" are defined as delays by the U.S. Patent and Trademark Office (PTO) under 35 U.S.C. § 154(b)(1)(A), which guarantees prompt PTO response. "B Delays" are defined as delays by the PTO under 35 U.S.C. § 154(b)(1)(B), which guarantees no more than three year application pendency. Patentees respectfully submit that the Office did not apply the proper standard for determining the period of "B Delay" under 35 U.S.C. § 154(b)(1)(B).

REVIEW OF PATENT TERM ADJUSTMENT CALCULATION

Applicant Delay

A reply to an Office Action was due on or before March 1, 2010 (the date that is three months after November 27, 2009, the date on which the Office Action was mailed). Patentees filed a response to the Office Action on March 29, 2010. Patentees were accorded a delay of 30 days for a late response. Patentees respectfully submit that the PTO calculated delay from February 27, 2010, instead of March 1, 2010. As intended in 35 U.S.C. § 154(b)(2)(C)(ii), the three-month due date should be calculated from March 1, 2010, as February 27, 2010, falls over a weekend, and Patentees request that the Office recalculate this period of Applicant Delay as 28 days, for delay from March 2, 2010, to March 29, 2010. See 37 C.F.R. § 1.704(b).

A reply to an Office Action was due on or before September 10, 2010 (the date that is three months after June 10, 2010, the date on which the Office Action was mailed). Patentees filed a response to the Office Action on December 9, 2010, thereby according an Applicant Delay of 90 days. Patentees do not dispute the PTO's calculation for this Applicant Delay from September 11, 2010 (the day after the date that is three months after the date on which the Office Action was mailed), to December 9, 2010. See 37 C.F.R. § 1.704(b).

Patentees filed an Information Disclosure Statement on March 30, 2012, subsequent to a reply filed on December 9, 2010. Patentees were accorded 0 days delay for a supplemental response. In good faith and candor, Patentees submit that the supplemental response should have been accorded a total Applicant Delay of 477 days, for delay from December 10, 2010, to March 30, 2012. See 37 C.F.R. § 1.704(c)(8).

A reply to an Office Action was due on or before July 12, 2012 (the date that is three months after April 12, 2012, the date on which the Office Action was mailed). Patentees filed a response to the Office Action on September 6, 2012, thereby according an Applicant Delay of 56 days. Patentees do not dispute the PTO's calculation for this Applicant Delay from July 13, 2012 (the day after the date that is three months after the date on which the Office Action was mailed), to September 6, 2012. See 37 C.F.R. § 1.704(b).

Patentees filed a Supplemental Reply on December 20, 2012, subsequent to a reply filed on September 6, 2012. Patentees were accorded a delay of 105 days for a supplemental response. Patentees do not dispute the PTO's calculation for this Applicant Delay from September 7, 2012, to December 20, 2012. See 37 C.F.R. § 1.704(c)(8).

In view of the periods of Applicant Delay detailed above, the total Applicant Delay for this patent should be calculated as 756 days (i.e., the sum of 28 days, 90 days, 477 days, 56 days, and 105 days).

"A Delay"

A first PTO action was due on or before February 29, 2008 (the date that is fourteen months after December 29, 2006, the date on which the application was filed). The PTO mailed the first non-final Office Action on November 27, 2009, thereby according a PTO Delay of

637 days. Patentees do not dispute the PTO's calculation for this "A Delay" from March 1, 2008 (the day after the date that is fourteen months after the date on which the application was filed), to November 27, 2009. See 37 C.F.R. §§ 1.702(a)(1) and 1.703(a)(1).

A PTO action was due on or before April 9, 2011 (the date that is four months after December 9, 2010, the date on which a response to Office Action was filed). The PTO mailed a non-final Office Action on April 12, 2012, thereby according a PTO Delay of 369 days. Patentees do not dispute the PTO's calculation for this "A Delay" from April 10, 2011 (the day after the date that is four months after the date on which a response to Office Action was filed), to April 12, 2012. See 37 C.F.R. §§ 1.702(a)(2) and 1.703(a)(2).

A PTO action was due on or before January 6, 2012 (the date that is four months after September 6, 2012, the date on which a response to Office Action was filed). The PTO mailed a Notice of Allowance on January 10, 2013, thereby according a PTO Delay of 4 days. Patentees do not dispute the PTO's calculation for this "A Delay" from January 7, 2012 (the day after the date that is four months after the date on which a response to Office Action was filed), to January 10, 2013. See 37 C.F.R. §§ 1.702(a)(2) and 1.703(a)(2).

In view of the periods of "A Delay" detailed above, the total "A Delay" for this patent should be calculated as 1,010 days (i.e., the sum of 637 days, 369 days, and 4 days).

"B Delay"

There is no dispute that the Office failed to issue a patent within three years of the filing date of the application and that Patentees are entitled to "B Delay" to compensate for that Office delay. The only issue in contention is the correct length of the "B Delay" period.

"B Delays" are defined as delays by the PTO under 35 U.S.C. § 154(b)(1)(B), which guarantees no more than three year application pendency. The period beginning on December 30, 2009 (the day after the date that is three years after the date on which the application was filed), and ending May 7, 2013 (the date the patent was issued), is 1,225 days in length. The "PTA 36 Months" entry in the PAIR/PALM system indicates that a total of 344 days were awarded for "B Delay" for this patent. The PTO excluded from "B Delay" the number of days corresponding to the period beginning on December 9, 2010 (the date on which a request

for continued examination was filed), and ending on May 7, 2013 (the date the patent was issued). Patentees respectfully submit that the PTO's calculation of this "B Delay" is incorrect.

Patentees respectfully contest the "B Delay" calculation on the following two alternative bases.

(i) Primary Argument: PTO erred by reducing PTA based on a request for continued examination filed after the 3-year "guaranteed" deadline

According to the decisions in Exelixis, Inc. v. Kappos, No. 1:12-cv-96 (E.D. Va. November 1, 2012) and Novartis v. Kappos, No. 1:10-cv-01138 (D.D.C. November 15, 2012), a Request for Continued Examination operates to toll the three year "guaranteed" deadline of 35 U.S.C. § 154(b)(1)(B) only if it is filed within three years of the application filing date. If filed after the three year deadline has passed, a Request for Continued Examination has no impact on PTA.

For the present patent, no Request for Continued Examination was filed during the first three years of application pendency. The Request for Continued Examination filed on December 9, 2010, therefore does not operate to reduce the "B Delay" award. As a result, the patent is entitled to 1,225 days of "B Delay", measured from December 30, 2009 (the day after the date that is three years after the date on which the application was filed), to May 7, 2013 (the date the patent was issued).

(ii) Secondary Argument: PTO erred by counting the time between the notice of allowance and the patent issue date as "time consumed by continued examination of the application"

This subsection presents an alternative calculation of "B Delay" in the event that the argument in subsection (i) above is deemed unpersuasive.

The Examiner's mailing of a Notice of Allowance on January 10, 2013, closed examination of the application on that date. Section 154(b)(1)(B)(i) of Title 35 excludes from "B Delay" "time consumed by continued examination of the application." The statute does not provide for exclusion from "B Delay" of time from the mailing of a Notice of Allowance until

issuance (a period during which continued examination did not occur). Thus, no continued examination took place during the 118 day period from January 10, 2013 (the mailing date of the Notice of Allowance), until May 7, 2013 (the date the patent was issued). Accordingly, 118 days of "B Delay" should have been included in addition to the 344 days accorded by the Director, for a total "B Delay" of 462 days.

Overlap of "A Delay" and "B Delay"

To the extent that the periods of delay overlap, the period of any term adjustment shall not exceed the actual number of days the issuance of the patent was delayed. 35 U.S.C. § 154(b)(2)(A). In view of the remarks above, the period of overlap of "A Delay" and "B Delay" should be calculated as follows. The primary argument below is based on the "B Delay" presented in subsection (i) above. The secondary argument below is based on the "B Delay" presented in subsection (ii) above.

(i) Primary Argument: PTO erred by reducing PTA based on a request for continued examination filed after the 3-year "guaranteed" deadline

As detailed above, 1,010 days of "A Delay" accumulated during the following periods:

March 1, 2008, to November 27, 2009;

April 10, 2011, to April 12, 2012; and

January 7, 2013, to January 10, 2013.

As detailed above, 1,225 days of "B Delay" accumulated during the following period:

December 30, 2009, to May 7, 2013.

As such, the periods of "A Delay" and "B Delay" overlap (i.e., occur on the same calendar day) for a total of 373 days, from April 10, 2011, to April 12, 2012, and January 7, 2013, to January 10, 2013.

(ii) Secondary Argument: PTO erred by counting the time between the notice of allowance and the patent issue date as "time consumed by continued examination of the application"

As detailed above, 1,010 days of "A Delay" accumulated during the following periods:

March 1, 2008, to November 27, 2009;

April 10, 2011, to April 12, 2012; and

January 7, 2013, to January 10, 2013.

As detailed above, 462 days of "B Delay" accumulated during the following periods:

December 30, 2009, to December 9, 2010; and

January 10, 2013, to May 7, 2013.

As such, the periods of "A Delay" and "B Delay" overlap (i.e., occur on the same calendar day) for a total of 1 day, from January 10, 2013, to January 10, 2013.

Terminal Disclaimer

This patent is not subject to a terminal disclaimer.

Conclusion

In consideration of the events described above, Patentees believe the PTA calculation of 1,073 days is incorrect. As such, Patentees respectfully request reconsideration of the PTA in the following alternative manners. The primary argument below is based on the "B Delay" presented in subsection (i) above. The secondary argument below is based on the "B Delay" presented in subsection (ii) above.

(i) Primary Argument: PTO erred by reducing PTA based on a request for continued examination filed after the 3-year "guaranteed" deadline

1) Total PTO Delay should be calculated as 1,862 days (i.e., the sum of 1,010 days of "A Delay" and 1,225 days of "B Delay" minus 373 days of overlap);

2) Total Applicant Delay should be calculated as 756 days; and

3) Total PTA should be calculated as 1,106 days.

(ii) Secondary Argument: PTO erred by counting the time between the notice of allowance and the patent issue date as "time consumed by continued examination of the application"

1) Total PTO Delay should be calculated as 1,471 days (i.e., the sum of 1,010 days of "A Delay" and 462 days of "B Delay" minus 1 day of overlap);

2) Total Applicant Delay should be calculated as 756 days; and

3) Total PTA should be calculated as 715 days.

The fee of $200 required under 37 C.F.R. § 1.18(e) is being submitted herewith. Please apply any other required charges or credits to Deposit Account No. 06-1050, referencing attorney docket number 16113-0206001.

Respectfully submitted,

Date: June 19, 2013

/Markus D. Weyde/
Markus D. Weyde
Reg. No. 65,416

Fish & Richardson P.C.
Customer Number 26192
Telephone: (858) 678-5070
Facsimile: (877) 769-7945

Electronic Patent Application Fee Transmittal

Application Number:	11618506
Filing Date:	29-Dec-2006
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Filer:	Markus Weyde/Nancy Grant
Attorney Docket Number:	16113-0206001

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Application for patent term adjustment	1455	1	200	200
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**200**

Electronic Acknowledgement Receipt

EFS ID:	16090564
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	Markus Weyde/Nancy Grant
Filer Authorized By:	Markus Weyde
Attorney Docket Number:	16113-0206001
Receipt Date:	19-JUN-2013
Filing Date:	29-DEC-2006
Time Stamp:	21:21:39
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$200
RAM confirmation Number	7985
Deposit Account	061050
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Patent Term Adjustment Petition	16113-0206001PTA.pdf	103309 0fc638e8f0f01b3506238227dc1271d480284998	no	7
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30065 ac125bea2d9fd8d703fc2a74edc8713112f43113	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	133374	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/618,506	05/07/2013	8438062	16113-0206001	5917

26192 7590 04/17/2013

FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 1073 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Terrence Rohan, Atherton, CA;
Tomasz J. Tunguz-Zawislak, San Francisco, CA;
Scott G. Sheffer, Palo Alto, CA;
Jeremiah Harmsen, Mountain View, CA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Terrence Rohan, et al.	Art Unit :	3622
Serial No. :	11/618,506	Examiner :	Luis A. Brown
Filed :	December 29, 2006	Confirmation No.:	5917
Title :	NETWORK NODE AD TARGETING		

MAIL STOP ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO NOTICE OF ALLOWANCE

In response to the Notice of Allowance mailed January 10, 2013, enclosed is a completed Part B - Fee(s) Transmittal and Comments on Examiner's Reasons for Allowance.

The issue fee and publication fees in the amount of $2080 are being paid concurrently herewith. In addition, please apply any other necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

Date: April 9, 2013

/John C. Phillips/
John C. Phillips
Reg. No. 35,322

Customer Number 26192
Fish & Richardson P.C.
Telephone: (858) 678-5070
Facsimile: (877) 769-7945

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

26192 7590 01/10/2013

FISH & RICHARDSON P.C.
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/618,506	12/29/2006	Terrence Rohan	16113-0206001	5917

TITLE OF INVENTION: NETWORK NODE AD TARGETING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1780	$300		$2080	04/10/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
BROWN, LUIS A.	3622	705-014000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
[ ] Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
[ ] "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Fish & Richardson P.C.
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE
Google Inc.

(B) RESIDENCE: (CITY and STATE OR COUNTRY)
Mountain View, California

Please check the appropriate assignee category or categories (will not be printed on the patent) : [ ] Individual [X] Corporation or other private group entity [ ] Government

4a. The following fee(s) are submitted:
[X] Issue Fee
[X] Publication Fee (No small entity discount permitted)
[ ] Advance Order - # of Copies _____

4b. Payment of Fee(s):
[ ] A check in the amount of the fee(s) is enclosed.
[ ] Payment by credit card. Form PTO-2038 is attached.
[X] The Director is hereby authorized to charge the required fee(s), or credit any overpayment, to Deposit Account Number 06-1050

5. **Change in Entity Status** (from status indicated above)
[ ] a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. [ ] b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.
NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /John C. Phillips/ Date April 9, 2013

Typed or printed name John C. Phillips Registration No. 35,322

11277920.doc

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Terrence Rohan, et al.	Art Unit :	3622
Serial No. :	11/618,506	Examiner :	Luis A. Brown
Filed :	December 29, 2006	Confirmation No.:	5917
Title :	NETWORK NODE AD TARGETING		

MAIL STOP ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

COMMENTS ON EXAMINER'S REASONS FOR ALLOWANCE

It is recognized that in accordance with M.P.E.P. § 1302.14, the Examiner's reasons for allowance need not set forth all of the details as to why the claims are allowed. In the above-referenced application, it is not conceded that the Examiner's stated reasons for allowance are the only reasons for which the claims are allowable. The Examiner's reasons for allowance indicate that particular claim elements are not disclosed or suggested by the prior art of record, yet the claims may be patentable for other reasons as well, including the inventive combination of all of the recited claim elements. It is not conceded that the specific limitations identified by the Examiner are necessary to distinguish the art of record or to satisfy the requirements of 35 U.S.C. § 112. Moreover, the Examiner does not assert, and it would not be conceded, that the Examiner's reasons have any bearing on the patentability of claims in any other applications directed to the disclosed subject matter.

In addition, each dependent claim stands on its own and may be allowable on its own merits. In particular, each dependent claim may be allowable on the basis of a combination of some of the features recited in the dependent claim and its base claim(s), which combination of features may not include all of the limitations identified in the Examiner's reasons for allowance.

Please apply any necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

.

Respectfully submitted,

Date: April 9, 2013

/John C. Phillips/
John C. Phillips
Reg. No. 35,322

Customer Number 26192
Fish & Richardson P.C.
Telephone: (858) 678-5070
Facsimile: (877) 769-7945

Electronic Patent Application Fee Transmittal

Application Number:	11618506
Filing Date:	29-Dec-2006
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Filer:	John Christopher Phillips/Nancy Grant
Attorney Docket Number:	16113-0206001

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl Issue Fee	1501	1	1780	1780
Publ. Fee- Early, Voluntary, or Normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**2080**

Electronic Acknowledgement Receipt

EFS ID:	15472212
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	John Christopher Phillips/Brenda Jurgens
Filer Authorized By:	John Christopher Phillips
Attorney Docket Number:	16113-0206001
Receipt Date:	09-APR-2013
Filing Date:	29-DEC-2006
Time Stamp:	16:07:48
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$2080
RAM confirmation Number	2665
Deposit Account	061050
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Issue Fee Payment (PTO-85B)	16113-0206001responsenoa.pdf	171776 bc853ddcdfe42fd5d90ea186784089bfcd128490	no	2
Warnings:					
Information:					
2	Post Allowance Communication - Incoming	16113-0206001comments.pdf	64405 97be2a533d518e90d3329a51c183e661a98a2364	no	1
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	31874 02a31afadb94e05b4baa1b261276143f0f3bc7d8	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	268055		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

26192 7590 01/10/2013

FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER
BROWN, LUIS A

ART UNIT	PAPER NUMBER
3622	

DATE MAILED: 01/10/2013

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/618,506	12/29/2006	Terrence Rohan	16113-0206001	5917

TITLE OF INVENTION: NETWORK NODE AD TARGETING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1770	$300	$0	$2070	04/10/2013

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

26192 7590 01/10/2013
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/618,506	12/29/2006	Terrence Rohan	16113-0206001	5917

TITLE OF INVENTION: NETWORK NODE AD TARGETING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1770	$300	$0	$2070	04/10/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
BROWN, LUIS A	3622	705-014000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:
- ❑ Issue Fee
- ❑ Publication Fee (No small entity discount permitted)
- ❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ❑ A check is enclosed.
- ❑ Payment by credit card. Form PTO-2038 is attached.
- ❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ❑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- ❑ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/618,506	12/29/2006	Terrence Rohan	16113-0206001	5917

26192 7590 01/10/2013
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
BROWN, LUIS A	

ART UNIT	PAPER NUMBER
3622	

DATE MAILED: 01/10/2013

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 729 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 729 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No.	Applicant(s)	
	11/618,506	ROHAN ET AL.	
	Examiner	Art Unit	
	LUIS BROWN	3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amendment as filed on 09/06/2012 and Supplemental Amendment 12/20/2012*.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are *1-4,6,9-12,25-28,30,33-42,45-47 and 50-55*. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov .

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 09/06/2012
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☐ Examiner's Amendment/Comment
6. ☒ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/Michael Bekerman/
Primary Examiner, Art Unit 3622

DETAILED ACTION

Status of Claims

1. The following is an **Allowability Notice** in response to the **Applicant's Amendments to and response for Application #12/484,892, filed on 09/06/2012 and 12/20/2012.**

2. Claims 1-4, 6, 9-12, 25-28, 30, 33-42, 45-47, and 50-55 are now pending and have been examined.

Allowable Subject Matter

3. Claims 1-4, 6, 9-12, 25-28, 30, 33-42, 45-47, and 50-55 are allowed.

4. The following is an examiner's statement of reasons for allowance: The independent claims of the Applicant's invention recite methods and a medium for identifying influencers in a social network community. The influencers are identified and ranked in order to associate advertisements advantageously with their profiles. The goal is to maximize advertising by using the profiles of those who have maximum influence potential on other members in their social network community.

5. The invention first identifies a social network community it wishes to advertise in. The community includes several members who are both directly and indirectly linked to one another. A weight of a community is determined in order to identify the overall strength of the community based on the number of direct and indirect links in the community as a whole. The influencers in particular are then

identified by then identified through a score of influence that is determined for each member in the community. The score of influence is determined by calculating a change in the weight of the community when each member is included in the community versus when they are excluded in the community.

6. The invention then ranks all the potential “influencers” according to their scores of influence. Those with the highest ranks are considered to be "influencers." Advertisements are then associated with the profiles of influencers. The influencers with the highest ranks will have a greater number of advertisements associated with their profile.

7. The invention, then, provides a unique advantage and is particularly useful in the methodology it uses to determine influencers in a community. While many inventions determine influencers by general profiling, by an overall number of links in a social network, or by the response of friends, the current invention uses the actual community structural relationship to the influencer. Further, the use of direct and indirect links uses and established parameter for a particular community, rather than simply recent response. Specifically, the weight of the community as a whole is determined by direct and indirect links, and then the influencer’s effect on the community’s structure and weight is used as the main metric for determining the score of influence. By doing this, the influencer is directly tied to their actual impact on the long-standing structure of the social network community as a whole.

8. **Atazky, et al., Pre-Grant Publication No. 2007/0121843 A1** teaches a system and method for selecting agents in a social network for viral sharing of content. Agents are chosen by profile attributes and level of influence in a social network.

Advertisements are included in the shared content, and the agents receive revenue for response to the viral sharing of the content.

9. **Atazky,** however, does not disclose determining a weight of a social network community based on or as a ratio between a quantity of direct links among the members of the community and a quantity of indirect links among the members of the community. Further, a score of influence is not determined for each member based on the weight of the community when the member is included in the community and when the member is excluded from the community.

10. **Ebanks, Pre-Grant Publication No. 2007/0198510 A1** teaches a system and method for selecting influencers in a social network. Influencers are ranked according to popularity scores based on responses to the content on their profile as well as shared content. The influence ranking is also based on the interconnectivity of the influencer within the community. The influencers with the highest rankings are identified as influencers for advertising the influencer's opinions on products.

11. **Ebanks,** however, does not disclose determining a weight of a social network community based on or as a ratio between a quantity of direct links among the members of the community and a quantity of indirect links among the members of the community. Further, a score of influence is not determined for each member based on the weight of the community when the member is included in the community and when the member is excluded from the community.

12. **McCuller, Pre-Grant Publication No. 2007/0260725 A1** teaches a system and method for identifying influential participants in a social community based on

messages exchanged among the community and the response of others to a particular user's messages. Links and nodes are representative of the user and their messages as a gauge of influence. Players, or nodes, or members of a social network are ordered by their strength of social influence.

13. **McCuller,** however, does not disclose determining a weight of a social network community based on or as a ratio between a quantity of direct links among the members of the community and a quantity of indirect links among the members of the community. Further, a score of influence is not determined for each member based on the weight of the community when the member is included in the community and when the member is excluded from the community.

14. **Zhuang, et al., Pre-Grant Publication No. 2008/0070209 A1** teaches a system and method for identifying influential persons in a social network. Influencers are selected by determining the maximum number of friends in a social network. Users are ranked according to speed and coverage of a distributed message using various members of a social network who are potential influencers. The influencers are then added to an influencer list for a particular social netowrk.

15. **Zhuang,** however, does not disclose determining a weight of a social network community based on or as a ratio between a quantity of direct links among the members of the community and a quantity of indirect links among the members of the community. Further, a score of influence is not determined for each member based on the weight of the community when the member is included in the community and when the member is excluded from the community.

16. **Meng Muntz, et al., Pre-Grant Publication No. 2006/0271564 A1** teaches a method and apparatus for determining social network communities by using the relationships between various nodes and their link weights. The strength of each node in a community is determined based on their link weight, which identifies the members (nodes) in the community that have a greatest overall as well as average strength of relationship with other community members.

17. **Meng Muntz,** however, does not disclose determining a weight of a social network community based on or as a ratio between a quantity of direct links among the members of the community and a quantity of indirect links among the members of the community. Further, a score of influence is not determined for each member based on the weight of the community when the member is included in the community and when the member is excluded from the community.

18. **Meek, et al., Pre-Grant Publication No. 2008/0005072 A1** teaches a system, method, and product for updating social graphs of members and communities based on interactions within the community and responses to targeted content. The social graphs include associating the members and communities with particular advertising categories based on interest and response. The social graphs are then further used for targeting of advertisements and content in response to user-initiated queries and other content serving opportunities. The content serving includes suggesting other social network profiles within the social graph to a member of the community who is actively searching or requesting content.

19. **Meek,** however, does not disclose determining a weight of a social network community based on or as a ratio between a quantity of direct links among the members of the community and a quantity of indirect links among the members of the community. Further, a score of influence is not determined for each member based on the weight of the community when the member is included in the community and when the member is excluded from the community.

20. Independent claim 1 complies with 35 U.S.C. 101. The claim is a method. The identifying and ranking steps are recited as being performed "by a computer."

21. Independent claim 25 complies with 35 U.S.C. 101. The claim is "a non-transitory computer-readable medium." The medium as claimed is in conformity with the Kappos memorandum of 2010 regarding the claiming of computer-readable mediums.

22. Independent claim 55 complies with 35 U.S.C. 101. The claim is a method. The identifying, ranking, and associating steps are recited as being performed "by a computer."

23. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

24. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner

should be directed to **Luis A. Brown** whose telephone number is **571.270.1394.** The Examiner can normally be reached on M 12-5pm EST, T-F 9:30-4:30pm EST. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **ERIC STAMBER** can be reached at **571.272.6724**.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair . Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to **571-273-8300**.

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**:

Randolph Building

401 Dulany Street

Alexandria, VA 22314.

/L B/
Examiner, Art Unit 3622

/Michael Bekerman/
Primary Examiner, Art Unit 3622

Notice of References Cited	Application/Control No. 11/618,506	Applicant(s)/Patent Under Reexamination ROHAN ET AL.	
	Examiner LUIS BROWN	Art Unit 3622	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2007/0214097	09-2007	Parsons et al.	706/012
*	B	US-7,933,843	04-2011	von Groll et al.	705/319
*	C	US-2007/0214097	09-2007	Parsons et al.	706/012
*	D	US-6,151,585	11-2000	Altschuler et al.	705/7.29
*	E	US-2002/0062368	05-2002	Holtzman et al.	709/224
*	F	US-7,685,016	03-2010	Flores et al.	705/7.11
*	G	US-2004/0249713	12-2004	Gross, John N.	705/014
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	WO2006040405	04-2006	Finland	Kiviluoto, et el.	G06Q 90/00
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	"Friends and Neighbors on the Web." Lada A. Adamic, et al., Social Networks, Volume 25, 2003.
	V	Dholakia, Utpal., et al. "A Social Influence Model of Consumer Participation in Network and Small Group based Virtual Communities." International Journal of Research in Marketing, Volume 24, 09/01/2003, pgs. 241-263.
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes

Application/Control No.	Applicant(s)/Patent under Reexamination
11/618,506	ROHAN ET AL.
Examiner	**Art Unit**
LUIS BROWN	3622

SEARCHED			
Class	Subclass	Date	Examiner
705	14.66	12/28/2012	LB
705	319	12/28/2012	LB
705	14.53	12/28/2012	LB
705	14.52	12/28/2012	LB
705	14.49	12/28/2012	LB

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner
705	**14.66**	**12/28/2012**	**LB**
705	319	12/28/2012	LB
705	14.53	12/28/2012	LB
705	14.52	12/28/2012	LB

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
EAST Search	10/22/2009	LB
Additional EAST Searches	11/14/2012	LB
Invenot, Assignee, Citation, and Continuity Searches	11/14/2012	LB
Consumlted with Michael Bekerman, Primary Examiner	11/16/2012	LB
Examiner-Initiated Interviews	12/20/2012	LB
Allowability Conference with Michael Bekerman, Primary Examiner	12/18/2012	LB
Discussed 101 and 112 Issues with TC3600 101 Panel Member	**12/18/2012**	**LB**

Issue Classification	Application/Control No.	Applicant(s)/Patent under Reexamination	
	11/618,506	ROHAN ET AL.	
	Examiner	Art Unit	
	LUIS BROWN	3622	

ISSUE CLASSIFICATION

ORIGINAL			CROSS REFERENCE(S)						
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)						
705	14.66	705	319	14.53	14.52	14.49			
INTERNATIONAL CLASSIFICATION									
G 0 6 Q	30/00								
	/								
	/								
	/								
	/								

/LUIS BROWN/ 12/29/2012 (Assistant Examiner) (Date)	/Michael Bekerman/ 1/2/2012 (Primary Examiner) (Date)	Total Claims Allowed: 33	
(Legal Instruments Examiner) (Date)		O.G. Print Claim(s): 1	O.G. Print Fig.: 7

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1		31		61		91		121		151		181
2	2		32		62		92		122		152		182
3	3	22	33		63		93		123		153		183
4	4	23	34		64		94		124		154		184
	5	24	35		65		95		125		155		185
5	6	25	36		66		96		126		156		186
	7	10	37		67		97		127		157		187
	8	11	38		68		98		128		158		188
6	9	12	39		69		99		129		159		189
7	10	26	40		70		100		130		160		190
8	11	27	41		71		101		131		161		191
9	12	28	42		72		102		132		162		192
	13		43		73		103		133		163		193
	14		44		74		104		134		164		194
	15	13	45		75		105		135		165		195
	16	14	46		76		106		136		166		196
	17	15	47		77		107		137		167		197
	18		48		78		108		138		168		198
	19		49		79		109		139		169		199
	20	29	50		80		110		140		170		200
	21	30	51		81		111		141		171		201
	22	31	52		82		112		142		172		202
	23	16	53		83		113		143		173		203
	24	32	54		84		114		144		174		204
17	25	33	55		85		115		145		175		205
18	26		56		86		116		146		176		206
19	27		57		87		117		147		177		207
20	28		58		88		118		148		178		208
	29		59		89		119		149		179		209
21	30		60		90		120		150		180		210

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 3622

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	1						
	2						
	3						
	4						
	5						
	6						
	7						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
/L.B./	8	1209599	05/2002	EP				
/L.B./	9	2005244647	09/2005	JP			Abstract Only	
/L.B./	10	2005174149	06/2005	JP			Abstract Only	
/L.B./	11	2006309600	11/2006	JP			Abstract Only	

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
/L.B./	12	Corporate Marketing using Specialized Social Networking Services, SNS Business Guide, Impress Japan Corporation, July 11, 2006, First Publication, pp. 113-116 (no English version available)
/L.B./	13	Matsuno, Hiroichi, Examiner, Japanese Patent Office, JP Application No. 2009-544187, Office Action dated July 2, 2012, 10 pages
/L.B./	14	Oomukai, Kazuki, Current Status and Future Perspectives of Social Networking Services, Information Processing, Information Processing Society of Japan, September 15, 2006, Vol. 47, No. 9, pp. 993-1000 (no English version available)
/L.B./	15	Takami, Shinya et al., Buzz Marketing in the Web Log Communities, DEWS 2006 Proceedings [ONLINE], Institute of Electronics, Information and Communication Engineers Data Engineering Research Board, June 30, 2006 [no English version available)

Examiner Signature	Date Considered
/Luis Brown/	10/30/2012

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
20 April 2006 (20.04.2006)

PCT

(10) International Publication Number
WO 2006/040405 A1

(51) International Patent Classification:
G06Q 90/00 (2006.01)

(21) International Application Number:
PCT/FI2005/050322

(22) International Filing Date:
21 September 2005 (21.09.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20041323 12 October 2004 (12.10.2004) FI

(71) Applicant *(for all designated States except US)*: **XTRACT OY** [FI/FI]; Hitsaajankatu 22, FI-00810 Helsinki (FI).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **KIVILUOTO, Kimmo** [FI/FI]; Leppäniementie 16, FI-00980 Helsinki (FI). **SARAMÄKI, Jari** [FI/FI]; Kourakuja 8 B 3, FI-ESPOO 02320 (FI).

(74) Agent: **BORENIUS & CO OY AB**; Tallberginkatu 2 A, FI-00180 Helsinki (FI).

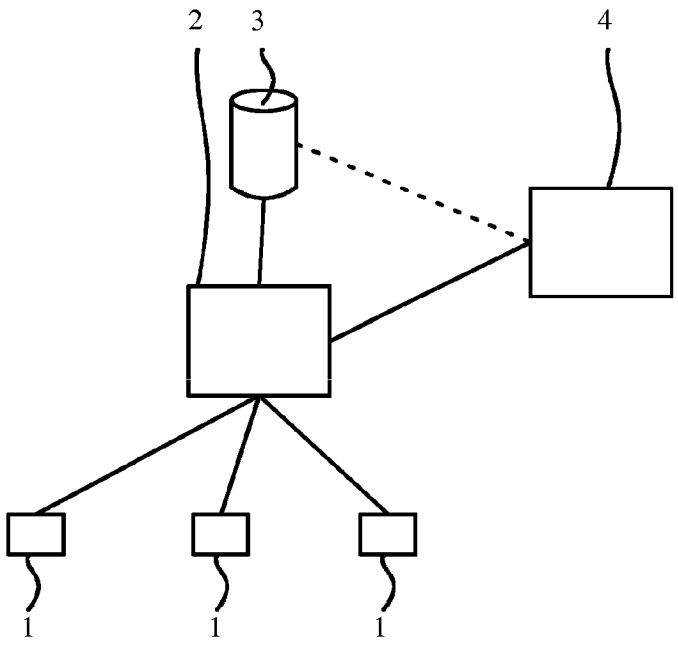
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) **Title:** AN ANALYZER, A SYSTEM AND A METHOD FOR DEFINING A PREFERRED GROUP OF USERS



(57) **Abstract:** The present invention relates to an analyzer, a system, a method, and a computer-readable medium for defining a preferred group of users, wherein the group is defined in the following way. The analyzer receives data from a data network node, which may be e.g. a (plurality of) data-base(s). After receiving the data, there is determined a social network of the users and a set of parameters for each user. The set of parameters may comprise e.g. an innovator score, a repeat user score and a social influence score. After the above de- termination, there is determined the preferred group of users based on the social network and the set of parameters. The information (or indication) of the preferred group of users may be utilized in various marketing activities (e.g. product launch or churn management).

WO 2006/040405 A1

An analyzer, a system and a method for defining a preferred group of users

Technical field of the invention

The present invention relates to an analyzer, a system and a method for defining a preferred group of users from user data. Information of the preferred group of users may be utilized in e.g. new product launches, marketing campaigns, churn management, and planning marketing.

Background of the invention

Nowadays active users of fast developing products, e.g. computer software, want to know of any new versions of the software or updates thereto. They also want to know about the new features and advantages (when compared to older version) of those products before their releases. Also some of the users are also interested of the release dates of new version and other possible information they may receive of the new product. Another interest of certain group of people, where from they want to know new releases, is books and movies. In this case the persons may be interested of certain writer (or certain type of books) or filmmaker (or certain type of movies). These persons wish to receive information of any new release of that certain writer or filmmaker.

However, since interests of people varies a lot, nowadays there is no real solution in which marketing could be directed to people that are interested of a new product.

In one marketing solution, the target group to which a marketing message is sent is defined usually by the user's demographics and/or previous purchase patterns. One of the typical ways to define the target group of users is to select the most potential age and education level for a product. This way of selecting the target group of users

to which marketing messages are sent is however inefficient, in a way that large group of messages is sent to different users without any response from the potential buyers. Therefore large group of unnecessary messages are sent through a network (e.g. Internet). In this connection the marketing message covers traditional mail, commercials (on TV or radio), e-mails, mobile messages, etc.

Another prior art solution that is used is to send e-mail messages to all possible e-mail addresses. This method is also called spamming. The recent studies have revealed that about half of the e-mails sent in communications networks are already spam messages. This method causes a lot of unnecessary traffic in the communications networks.

In addition to the above drawbacks of the traditional marketing efforts, also the sales and marketing costs are unnecessarily high since there is a plurality of messages sent to various persons who are not interested of the new product. Also one drawback of so called mass marketing is that persons who would be interested of a new product does not necessarily realize the interesting marketing messages from all the messages received.

Summary of the present invention

It is an object of the present invention to overcome or at least mitigate the disadvantages of the prior art. The present invention provides an analyzer, a system and a method to define a preferred group of users.

On the basis of the preferred group of users it is possible to define a limited number of potential marketing targets to whom marketing information is sent.

Further, it is an object of the present invention to provide a solution to reduce the number of marketing messages that are sent over a communications network. When the num-

ber of marketing messages is reduced, the overall load of the communications network also reduces. Also unnecessary messages are reduced, which also reduces the overall costs that are needed for sales and marketing (of a new product).

It is further an object to provide a solution to define more efficiently the users that are interested of the new product.

According to a first aspect of the present invention there is provided an analyzer for defining a preferred group of users, the analyzer comprising:

means for receiving data from a network node;

means for determining a social network of the users based on the received data;

means for determining a set of parameters for each user; and

means for determining the preferred group of users based on said social network and said set of parameters.

According to a second aspect of the invention there is provided a system for defining a preferred group of users, the system comprising:

a plurality of users;

a network node connected to the plurality of users;

at least one database comprising data of the users; and

an analyzer connected to the network node, the analyzer being arranged to define the preferred group of users from the data obtained from said at least one database by determining a social network of the users and determining a set of parameters for each user, and to provide user information of the preferred group of users, which is determined based on said social network and said set of parameters, to the network node.

According to a third aspect of the present invention there is provided a method for defining a preferred group of users in an analyzer, the method comprising:

receiving user data from a database;

determining a social network of the users based on the received user data;

determining a set of parameters for each user; and

combining the social network and the set of parameters to define the preferred group of users.

According to a fourth aspect of the present invention there is provided a computer-readable medium having stored thereon instructions for defining a preferred group of users, the instructions when executed by a processor cause the processor to:

receive user data from a database;

determine a social network of the users based on the received user data;

determine a set of parameters for each user; and

combine the social network and the set of parameters to define the preferred group of users.

The dependent claims describe additional features of the embodiments of the present invention.

The present invention provides several advantages when compared to the prior art solutions. For example, the present invention provides means and method for directing the marketing messages to the users that are interested in (certain) new products. More over, the present invention provides a solution in which it is possible to reduce the amount of unnecessary messages (for example of a product that is not interesting to some group of users) that are sent to the users. This also reduces the overall costs that are needed for sales and marketing of a new product. The present invention further enables faster product launch with decreased amount of costs. The information of

the preferred group of users may also (not only in product launches) be utilized for example in marketing campaigns, churn management and planning marketing. Further advantages of the present invention are described in detailed description of the embodiments of the present invention with reference to the drawings.

Brief description of the drawings

For a better understanding of the present invention and in order to show how the same may be carried into effect reference will now be made to the accompanying drawings, in which:

Figure 1 shows an inventive system of the present invention.

Figure 2 shows an example of the social network map of the users.

Figure 3 shows a flow chart illustrating the process of the present invention.

Detailed description of certain embodiments

Figure 1 shows an inventive system of the present invention. Figure 1 shows users 1 of a service, a network node (or a service provider) 2, a database (or a server) 3 and an analyzer 4. The network node 2 in this connection may be for example a mobile telephone operator or an electronic store. The service may be e.g. call connection between two users 1 or selling e.g. books through the Internet. Even though the following presentation considers users (denoted as 1 in Figure 1), the skilled person in the art realizes that the users of e.g. mobile communication system utilizes mobile terminals for connections to other users, i.e. a user uses his/her mobile terminal for utilizing a call (or sending a message) to another user.

In the inventive concept of the present invention, the network node 2 is connected to a database 3, which records

the information of the users 1. The information may comprise communication data of the users 1, the earlier purchase history of the users 1, possible recommendation history of the users 1, and demographics of the users 1 (age, marital status, etc.). The communication data may include information of all type of contacts of the users 1, e.g. telephone calls, mobile messaging, e-mails, product recommendation messages, and instant messaging. The earlier purchase history may comprise e.g. what kinds of products the user 1 has purchased. The recommendation history may comprise information of what kind of products the user 1 has recommended to other users 1 (e.g. all purchased products and to whom the user 1 has recommended different products).

The analyzer 4 is connected to the network node 2. The analyzer may also be connected directly to the database 3. The network node 2 (and possibly also the database 3) may be connected directly or through a communications network (which is not shown in Figure 1) to the analyzer 4.

In the inventive concept of the present invention, the network node 2 owner (or operator) wants to find out a preferred group of users (that may be called as alpha users) to more efficiently target the marketing resources so that the fastest possible product launch could be achieved. The alpha users are persons who are interested to buy new products, willing to recommend them to their friends, and have influence in his/her social network.

Through the network node 2 a request to define a preferred group of users (e.g. alpha users) is provided to the analyzer 4. At the same time the network node 2 may provide the analyzer 4 the data regarding the users 1 from the database 3. Alternatively, the analyzer 4 requests the data from the database 3 (directly or through the network node 2) after receiving the request to find the preferred group of users from the network node 2.

After receiving the data from the database 3, the analyzer 4 analyzes the information in the following way.

The analyzer 4 first analyzes the data to find out the contacts of the users 1 (e.g. which user has recommended a product to another user) to build a social network map between the users. An example of the users' social network map is shown in Figure 2. The social network map may be built by means of a computer program comprising an algorithm for building the social network map, which computer program is implemented in the analyzer 4.

Thereafter the analyzer 4 will define most potential buyers or users by formulating an innovator score (which measures whether the subscriber was (or how likely the subscriber will be) the first adopter of the product in his local social network) from purchase and usage data provided from the server 3.

The analyzer 2 also defines a repeat user score from the previous product purchase history (which score measures whether the subscriber has taken (or how likely the subscriber will take) the product into routine use after first trial).

The analyzer 4 also defines a social network influence score (which measures the social influence of a given subscriber in the social subnetwork relevant to the product).

From the combination of the above scores the analyzer 4 defines an alpha user score (which score measures the net value of the subscriber in accelerating the product launch) for each user 1. The alpha user score may be defined e.g. such that each of the above scores are multiplied with a weighting value, and the weighted sum or weighted average defines the alpha user score.

The person skilled in the art appreciates that the order of the scoring steps above may be varied without departing from the scope of the invention. Also the steps may be processed essentially at the same time.

Further the process may be such that after defining each score, only certain number of users are selected, i.e. further scores are defined only to those users. This may be achieved e.g. with following two ways. In first alternative only those users that have gained higher score than certain predefined score are selected to the next phase (for example if the highest possible value for a score is 100, it may be defined that only those users that receive a score 70 or above are selected for next phase). In second alternative only a certain predefined number of users receiving the highest score are selected for next phase (for example if the predefined number of users is 500, then those users being within 500 highest score received users are the ones that are selected to the next phase).

After defining the alpha user scores for each user 1, the analyzer 4 will define the preferred group of users that were requested. Thereafter the analyzer 4 sends indication (or information) of the preferred group of users 1 to the network node 2. The indication sent to the network node 2 may be used to target more efficiently marketing messages to the users 1. This way the sent messages from the network node to different users may be reduced, and therefore also the overall loading of the network may be reduced. Finding alpha users also increases the efficiency of the product launch so that more possible users will know about the new product than by randomly picking up the users to which the marketing messages are sent (this will also decrease the costs needed for sales and marketing). In this connection the marketing message covers traditional mail, commercials (on TV or radio), e-mails, mobile messages, etc.

Figure 2 shows a social network map that illustrates contacts between users to each other. This information may be defined on the basis of the call data records when the information is analyzed. In Figure 2 there are denoted three different groups of users. The first group of users (only one of which is shown in Figure 2) are denoted as A. The users of the first group (i.e. users A) are connected to the second group of users that are denoted as B. The second group of users may be user A's family, friends, co-workers, etc. However, the user A is directly connected to the second group of users (i.e. users B). Users B are further connected to a third group of users that are denoted as C in Figure 2. As can be seen from Figure 2, the user A has more contacts to others users than any other user. Therefore in word-of-mouth method, the user A would be the best target to start the marketing efforts.

In first embodiment of the present invention, a plurality of mobile telephone users 1 (three of which are shown in Figure 1 to illustrate the present invention) are connected to a mobile telephone operator 2. The mobile telephone network and its functioning are known to the person skilled in the art, and therefore, they are not described more detailed herein. It is enough to mention that the mobile telephone network may be a traditional second or third generation mobile telephone network. Also what is send (in case of messages sent from one user to another) between the users (users' mobile terminals) is not relevant in this embodiment of the present invention.

The mobile telephone operator is connected to a database (or a server) 3, wherein the records of the communication data (i.e. data of calls and sent messages between users) is stored. The records may be call data records or alike, which indicates each user's 1 connections to other users 1. Even though the operator 2 and the database 3 are illustrated as separate (i.e. may be physically separated to different locations), the skilled person in the art real-

izes that they may be situated in the same location.

The operator 2 is further connected to an analyzer 4. Alternatively or in addition to the previous, the database (or server) 3 may be directly connected to the analyzer 4 as indicated by the dash line. The analyzer 4 may also be connected through a communications network (not shown in Figure 1), e.g. the Internet, without departing from the scope of the present invention.

Since the operator 2 stores the communication data into the database 3, this information may be utilized to define the connections between the users 1. This communication data may be utilized to find out the users 1 that are so called alpha users. More over, the communication data may be utilized to define the preferred group of users.

In the first embodiment of the present invention, the operator 2 requests the analyzer 4 to define the preferred group of users so that the operator may market their new product with so few marketing messages to be sent to the users 1 as possible.

Thereafter the operator 2 may send the call data records to the analyzer 4 or the analyzer 4 may request the information from the operator 2 or the database 3.

After receiving the call data records from the database 3 (whether through the operator 2 or directly from the database 3), the analyzer 4 builds a social network from the communication data. From the social network the analyzer 4 defines a social network influence score, which measures the social influence of a given subscriber in the social subnetwork relevant to the product. From the subscribers' previous product purchase history, the analyzer 4 defines an innovator score, which measures whether the subscriber was (or how likely the subscriber will be) the first adopter of the product in his local social network. The

analyzer will also define a repeat user score from the previous product purchase history, which score measures whether the subscriber has taken (or how likely the subscriber will take) the product into routine use after first trial. From the combination of the above scores the analyzer 4 will define an alpha user score for each user 1, which score measures the net value of the subscriber in accelerating the product launch. By evaluating the alpha user scores of the users 1 the analyzer 4 may define the most potential marketing targets, i.e. the preferred group of users.

Even though the first embodiment of the present invention considered mobile telephone environment, also traditional telephone environment may be applied to the above concept of the present invention without departing from the invention as defined in the appended claims.

In a second embodiment of the present invention a plurality of Internet users 1 are connected (e.g. by means of a computer connected to a communications network) to an Internet Service Provider (ISP) 2. The ISP 2 is connected to (or contains) a database (or a server) 3, which comprises traffic information between the users 1 of the Internet service. This information contains e.g. which user 1 has sent an e-mail message to another user (and also to whom) 1 or information of the parties of instant messaging. The ISP 2 is further connected to an analyzer 4. The analyzer 4 may further be connected directly to the database 3.

After a request (to define the preferred group of users) from the ISP 2 to the analyzer 4 is made, the process to define the preferred group of users follows the process as defined in the first embodiment of the present invention.

In a third embodiment of the present invention a plurality of electronic store users 1 are connected to an electronic

store 2 in the Internet. There is further shown a database 3 connected to the store 2 and an analyzer 4, which is connected to the store 2 and possibly also directly to the database 3.

The database 3 comprises information of how different users 1 have recommended products of the store 2 to other users 1. The database further comprises e.g. users' 1 demographic information that may be utilized in marketing purposes.

The process according to this embodiment of the present invention includes the data gathering on all product purchases and recommendations to friends, and storing the information to the database 3.

When the electronic store 2 owners wish to launch a new product marketing campaign (or other marketing effort), it requests the analyzer 4 to define the preferred group of users from all users in the database 3. After receiving the request from the store 2, the analyzer 4 may request the data from the database 3 directly or through the processing equipment of the electronic store 2. Alternatively, the processing equipment of the electronic store 2 provides the information from the database 3 to the analyzer 4 when it sends the request.

When receiving the data from the database 3 in the analyzer 4, the analyzer 4 builds a social network (i.e. which user 1 has recommended a product to which ones of his/her friends) from the recommendations information. Thereafter, the analyzer 4 analyzes the purchase and usage data to find out the users 1 that are most potential buyers of the product (building innovator score). The analyzer 4 also differentiate regular customers of a new product from trial purchasers from the information received from the database 3 (building repeat user score). Then the analyzer 4 analyzes the information to define the

most influential persons in the network (to build social influence score). The above steps are processed practically almost at the same time, even though they are described as chronological steps above. Also the order of performing the scoring phases may vary.

After receiving the above scores, the analyzer 4 forms an alpha user score (which is a combination of above scores) to define the preferred group of users.

When the preferred group of users is defined in the analyzer 4, the analyzer 4 will provide the indications of which users are within the preferred group of users to the processing equipment of the electronic store 2, which may utilize this information to target their marketing to certain users 1 of the service.

Figure 3 shows a flow chart illustrating the process of the present invention.

The process starts, in step 300, with sending a request to define a preferred group of users (with respect to certain product) from a network node to an analyzer. At the same time the network node may also send an indication of how many users with highest possible score it wishes to receive (i.e. determine the number of users) and/or indication of lowest user score that it wishes to receive (i.e. the score value limit over which the users that are sent back to the network node must have). An example of the first of the above indications may be such that the network node may define that it wishes to receive indication of 500 best scoring users. An example for the latter indication may be such that when the total score is between 1 and 100, the network node wishes to receive indication of users scoring above 85.

After receiving the request, the analyzer will receive data, step 302, whether from a network node or directly

from one or a plurality of databases. The data may be obtained in the following ways. The network node may send the data to the analyzer together with the request or after certain time period. The network node may also instruct a database (or several databases) to provide the data to the analyzer. The network node may provide together with the request e.g. IP address(es) of database(s), where from the analyzer may request the data. The database(s) may be physically located in or operationally connected to a network node. The different possibilities for network nodes have been already described with reference to the preferred embodiment of the present invention, and therefore, they are not repeated herein. Also the forms of the data correspond to the data that were identified with reference to the preferred embodiment of the present invention.

After receiving the data, the analyzer starts to define the preferred group of users as requested by the network node. First the analyzer builds a social network by utilizing the received data of contacts between the users, step 304. The social network may be built as a map (one type of which is illustrated in Figure 2) illustrating the contacts between the users. Thereafter, the analyzer defines a set of parameters for each user. By properly weighting and calculating each parameter, the analyzer may form (or define) an innovator score, step 306, a repeat user score, step 308, and a social network influence score, step 310, for each user.

After the above steps are performed, the analyzer combines the social network and the set of parameters (or the above scores) into a one score, which may be called as alpha user score, in step 312. The alpha user score may be calculated on the basis of weighting different scores (or parameters) and whether to calculate a weighted score sum or weighted score average for each user.

On the basis of the combination, i.e. defining the alpha user score for each user, the analyzer may sort the users from highest to lowest score (or in any other way of sorting the data). On the basis of the alpha user score and the indications given by the network node, the analyzer defines the preferred group of users, step 314. The group may comprise a predetermined number of users or all users above certain predefined score limit (as described with reference to the preferred embodiment of the present invention).

After defining the preferred group of users, the analyzer sends information of the users in the preferred group of users to the network node, step 316. Where after the network node may utilize the received list of users by sending a message (or such information) of new product (or such) to the listed users.

Even though the above process is described as step after step basis, the skilled man in the art realizes that defining different scores may also be performed essentially at the same time (depending on the processing capacity of the analyzer).

Also after defining each score, it is possible to implement the method of selecting only a certain number of users to the next score defining phase as described in connection to the preferred embodiment of the invention.

Defining the preferred group of users may be implemented by a computer-readable medium having stored thereon instructions for defining a preferred group of users. When the instructions are executed by a processor, the instructions cause the processor to: receive user data from a database; determine a social network of the users based on the received user data; determine a set of parameters for each user; and combine the social network and the set of parameters to define the preferred group of users.

It will be appreciated by the skilled person in the art that various modifications may be made to the above-described embodiments without departing from the scope of the present invention, as disclosed in the appended claims. For example, the mobile network operator (as defined in the first embodiment of the present invention) may also act as an ISP (as defined in the second embodiment of the present invention). Further the analyzer may locate in operator's facilities or may be connected through a communications network.

Claims

1. An analyzer for defining a preferred group of users, the analyzer comprising:

means for receiving data from a network node;

means for determining a social network of the users based on the received data;

means for determining a set of parameters for each user; and

means for determining the preferred group of users based on said social network and said set of parameters.

2. Analyzer according to claim 1, wherein means for determining the preferred group of users is based on providing an alpha user score for each user.

3. Analyzer according to claim 2, wherein the alpha user score is a combination of a social network and the set of parameters.

4. Analyzer according to any one of the preceding claims, wherein the set of parameters comprises a social influence score, an innovator score, and/or a repeat user score.

5. Analyzer according to any one of the preceding claims, wherein the analyzer comprises a computer program comprising an algorithm to build a social network of the users.

6. Analyzer according to any one of the preceding claims, wherein the received data comprises communication data, which is data of contacts between users, and which comprises at least one of the following data: telephone calls, mobile messaging, e-mails, product recommendation messages, and instant messaging.

7. Analyzer according to any one of the preceding claims, wherein the received data is demographic data of the users.

8. Analyzer according to any one of the preceding claims, wherein the received data is earlier buying or usage data of the users.

9. Analyzer according to any one of the preceding claims, wherein the received data is data of user's recommendations to other users.

10. Analyzer according to any one of claims 2-9, wherein the preferred group of users is a group of users having alpha user score higher than a predefined alpha user score limit.

11. Analyzer according to any one of claims 2-9, wherein the preferred group of users is predefined number of users having highest alpha user score.

12. A system for defining a preferred group of users, the system comprising:

a plurality of users;

a network node connected to the plurality of users;

at least one database comprising data of the users; and

an analyzer connected to the network node, the analyzer being arranged to define the preferred group of users from the data obtained from said at least one database by determining a social network of the users and determining a set of parameters for each user, and to provide user information of the preferred group of users, which is determined based on said social network and said set of parameters, to the network node.

13. A system according to claim 12, wherein the data in

said at least one database comprises communication data, which is data of contacts between users, and which comprises at least one of the following data: telephone calls, mobile messaging, e-mails, product recommendation messages, and instant messaging.

14. A system according to claim 12 or 13, wherein the data in said at least one database comprises demographic data of the users.

15. A system according to any one of claims 12-14, wherein the data in said at least one database comprises earlier buying or usage data of the users.

16. A system according to any one of claims 12-15, wherein the data in said at least one database comprises data of user's recommendations to other users.

17. A system according to any one of claims 12-16, wherein the network node and at least one database are an integrated unit.

18. A system according to any one of claims 12-26, wherein the network node and at least one database are operationally connected to each other.

19. A system according to any one of claims 12-18, wherein the system comprises a plurality of databases, each database comprising data of the users.

20. A system according to any one claims 12-19, wherein the network node is a telephone operator or a mobile network operator.

21. A system according to any one of claims 12-19, wherein the network node is an Internet Service Provider (ISP).

22. A system according to any one of claims 12-19, wherein the network node is an electronic store.

23. A system according to any one of claims 12-22, wherein the network node comprises means for sending a message to the preferred group of users.

24. A system according to claim 23, wherein the message is in the form of mobile messaging.

25. A system according to claim 23, wherein the message is in the form of an e-mail.

26. A method for defining a preferred group of users in an analyzer, the method comprising:

receiving user data from a database;

determining a social network of the users based on the received user data;

determining a set of parameters for each user; and

combining the social network and the set of parameters to define the preferred group of users.

27. A method according to claim 26, wherein the method further comprises receiving a request to define the preferred group of users from a network node.

28. A method according to claim 26 or 27, wherein the method further comprises providing the information of the preferred group of users to the network node.

29. Method according to any one of claims 26-28, wherein the social network is built from information of contacts between the users.

30. Method according to claim 29, wherein the information of contacts between the users is based on communication data comprising at least one of the following data: telephone calls, mobile messaging, e-mails, product recommen-

dation messages, and instant messaging.

31. Method according to any one of claims 26-30, wherein determining the set of parameters comprises determining an innovator score for each user.

32. A method according to claim 31, wherein the innovator score is calculated on the basis of user's data of purchase and usage history.

33. Method according to any one of claims 26-32, wherein determining the set of parameters comprises determining a repeat user score for each user.

34. Method according to claim 33, wherein the repeat user score is calculated on the basis of user's data of purchase and usage history.

35. Method according to any one of claims 26-34, wherein determining the set of parameters comprises determining a social network influence score for each user.

36. Method according to claim 35, wherein the social network influence score is calculated on the basis of user's data of contacts to other users, and their purchase history of certain products.

37. Method according to any one of claims 26-36, wherein said combining comprises defining an alpha user score for each user based on combination of the social network and the set of parameters.

38. Method according to claim 37, wherein the preferred group of users is defined on the basis of the alpha user score.

39. Method according to claim 38, wherein the preferred group of users is a group of users having the alpha user

score higher than a predefined alpha user score limit.

40. Method according to claim 38, wherein the preferred group of users is a predefined number of users having highest alpha user score.

41. Method according to claim 39 or 40, wherein the alpha user score limit and the number of users are predefined by the network node.

42. Method according to any one of claims 27-41, wherein the network node wherefrom the request is received is one of the following: a telephone operator, an Internet Service Provider (ISP), or an electronic store.

43. Method according to any one of claims 26-42, wherein the database wherefrom the data is received is physically located in or operationally connected to one of the following: a server, a telephone operator, an Internet Service Provider (ISP), or an electronic store.

44. Method according to any one of claims 26-43, wherein the data is provided to the analyzer from the database through the network node.

45. Method according to any one of claims 26-43, wherein the data is provided to the analyzer directly from the database.

46. Method according to any one of claims 26-45, wherein the data is provided to the analyzer from a plurality of databases.

47. A computer-readable medium having stored thereon instructions for defining a preferred group of users, the instructions when executed by a processor cause the processor to:

receive user data from a database;

determine a social network of the users based on the received user data;

determine a set of parameters for each user; and

combine the social network and the set of parameters to define the preferred group of users.

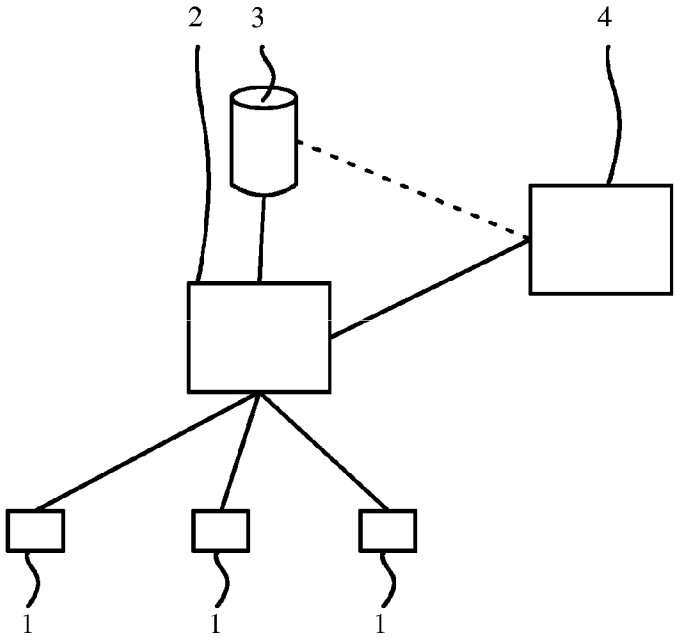


Fig. 1

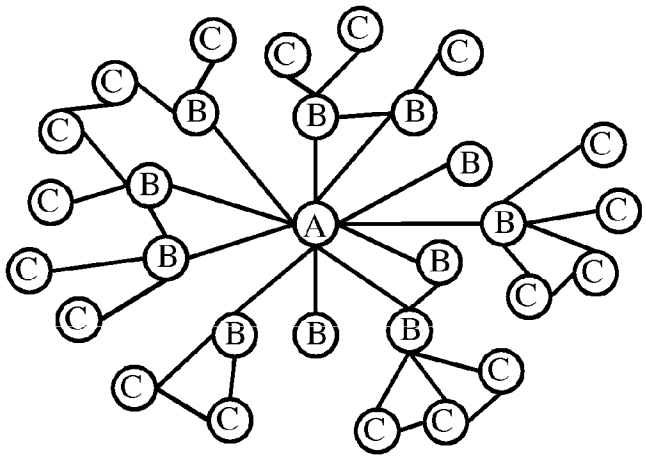


Fig. 2

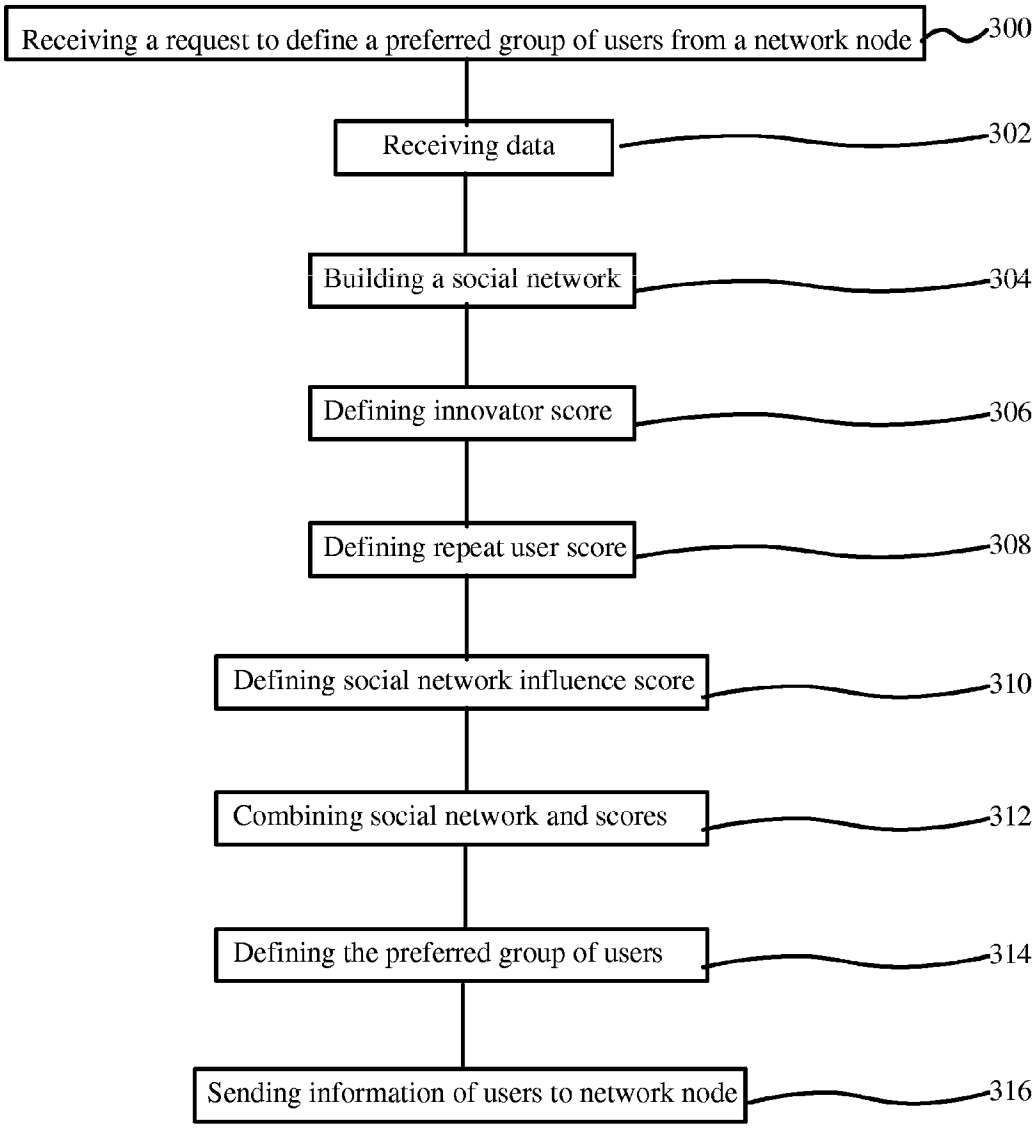

Receiving a request to define a preferred group of users from a network node
300
Receiving data
302
Building a social network
304
Defining innovator score
306
Defining repeat user score
308
Defining social network influence score
310
Combining social network and scores
312
Defining the preferred group of users
314
Sending information of users to network node
316

Fig. 3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI2005/050322

A. CLASSIFICATION OF SUBJECT MATTER

See extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7: G06F17/60

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

FI, SE, NO, DK

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI, PAJ, Inspec

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Richardson et al, 'Mining Knowledge-Sharing Sites for Viral Marketing', Proceedings of the Eighth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, pages 61--70. ACM Press, 2002 column 2; chapter 2; chapter 4	1-5, 12-16, 26-41, 47
Y	column 2; chapter 2; chapter 4	6-11, 17-25, 42-46
Y	US 2004/0122803 A1 (Dom et al) 24 June 2004 (24.06.2004), pages 1-2, [0014] in particular; the whole document	6-11, 17-25, 42-46
Y	US 2003/0028424 A1 (Kampff et al) 06 February 2003 (06.02.2003), whole document	6-11, 17-25, 42-46

☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
28 November 2005 (28.11.2005)	07 December 2005 (07.12.2005)

Name and mailing address of the ISA/FI	Authorized officer
National Board of Patents and Registration of Finland P.O. Box 1160, FI-00101 HELSINKI, Finland	Olli-Pekka Piirilä
Facsimile No. +358 9 6939 5328	Telephone No. +358 9 6939 500

Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI2005/050322

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Kempe et al, 'Maximizing the spread of influence through a social network', SIGKDD '03, Washington, available 5 Aug 2003 from http://www.cs.cornell.edu/home/kleinber/kdd03-inf.pdf according to www.archive.org (http://web.archive.org/web/*/http://www.cs.cornell.edu/home/kleinber/kdd03-inf.pdf), whole document; introduction in particular (column 2)	6-11, 18-25, 42-46
Y	http://en.wikipedia.org/wiki/Viral_marketing, public 5 Mar 2004 according to www.archive.org (http://web.archive.org/web/20040305060506/http://en.wikipedia.org/wiki/Viral_marketing), whole document	1-47
A	US 2003/0055711 A1 (Doherty) 20 March 2003 (20.03.2003), whole document	1-47
L	http://www.idiro.com/img/ici_product_sheet.pdf, whole document, Internet publication whose publication date can not be identified	
L	http://www.purpleace.com/pdf/ripple_discover.pdf, whole document; especially starting from the last paragraph of page 2, Internet publication whose publication date can not be identified	

12/29/2012, EAST Version: 3.0.1.1

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/FI2005/050322

Patent document cited in search report	Publication date	Patent family members(s)	Publication date
US 2004/0122803 A1	24/06/2004	None	
US 2003/0028424 A1	06/02/2003	CA2448173 A1 WO02099719 A1	12/12/2002 12/12/2002
US 2003/0055711 A1	20/03/2003	None	

12/29/2012, EAST Version: 3.0.1.1

International application No.
PCT/FI2005/050322

CLASSIFICATION OF SUBJECT MATTER

Int.Cl.
G06Q 90/00 (2006.01)

12/29/2012, EAST Version: 3.0.1.1

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 5917

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/618,506	12/29/2006	705	3622	16113-0206001

APPLICANTS

Terrence Rohan, Atherton, CA;
Tomasz J. Tunguz-Zawislak, San Francisco, CA;
Scott G. Sheffer, Palo Alto, CA;
Jeremiah Harmsen, Mountain View, CA;

**** CONTINUING DATA ***************************

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
01/30/2007

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /LUIS A BROWN/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		CA	7	36	3

ADDRESS

FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022
UNITED STATES

TITLE

NETWORK NODE AD TARGETING

FILING FEE RECEIVED		
1930	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 3622
Serial No.	: 11/618,506	Examiner	: Luis A. Brown
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL AMENDMENT IN REPLY TO ACTION OF APRIL 12, 2012

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for displaying advertisements to members of a network, the method comprising:

identifying, by a computer, a community within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the at least two indirectly linked members are each linked to a common member of the plurality of members;

determining a weight of the community based on a quantity of direct links among the members of the community and a quantity of indirect links among the members of the community;

for each member of the community, determining a respective score of influence by determining a change between [[a]] the weight of the community when [[a]] the member is included in the community and [[the]] a weight of the community when the member is excluded from the community;

ranking, by the computer, each of the plurality of members included in the community, wherein a rank of a member is based on the member's score of influence;

identifying, by the computer, a plurality of influencers in the community, wherein the plurality of influencers are members of the community with highest ranks; and

associating, by the computer, advertisements with the profiles of the plurality of influencers, wherein a quantity of advertisements associated with an influencer's profile depends upon a rank of the influencer in the community.

2. (Previously Presented) The method of claim 1, further comprising receiving information pertaining to a plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and information describing one or more members with whom each of the plurality of members is linked.

3. (Previously Presented) The method of claim 2, wherein identifying the community comprises grouping members who are directly and indirectly linked to each other.

4. (Previously Presented) The method of claim 3, wherein two members are connected to each other through a link that has a weight, the method further comprising associating one or more advertisements with a profile of each of the two members, wherein a quantity of advertisements associated with the profile is based on the weight of the link.

5. (Cancelled)

6. (Previously Presented) The method of claim 2, further comprising identifying one or more common interests of the plurality of members of the community based on the content of the profiles of the plurality of members.

7. (Cancelled)

8. (Cancelled)

9. (Original) The method of claim 2, wherein the network comprises an online social network.

10. (Original) The method of claim 9, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

11. (Previously Presented) The method of claim 1, wherein a member of the network belongs to more than one community.

12. (Original) The method of claim 1, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

13 – 24. (Cancelled)

25. (Currently Amended) A non-transitory computer-readable medium storing instructions executable by one or more processing devices to perform operations for displaying advertisements to members of a network, the operations comprising:

identifying a community within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the two members who are linked to each other indirectly are each directly linked to a same member of the plurality of members;

determining a weight of the community based on a quantity of direct links among the members of the community and a quantity of indirect links among the members of the community;

for each member of the community, determining a respective score of influence by determining a change between [[a]] the weight of the community when [[a]] the member is included in the community and a weight of the community when the member is excluded from

the community;

ranking, by the computer, each of the plurality of members included in the community, wherein a rank of a member is based on the member's score of influence;

identifying a plurality of influencers in the community, wherein the plurality of influencers are members of the community with highest ranks; and

associating advertisements with the profiles of the plurality of influencers, wherein a quantity of advertisements associated with an influencer's profile depends upon a rank of the influencer in the community.

26. (Previously Presented) The medium of claim 25, the operations further comprising receiving information pertaining to the plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and information describing one or more members with whom each of the plurality of members is linked.

27. (Previously Presented) The medium of claim 26, wherein the operations for identifying the community further comprises grouping members who are directly and indirectly linked to each other.

28. (Previously Presented) The medium of claim 27, wherein two members are directly connected to each other through a link that has a weight, the method further comprising associating one or more advertisements with a profile of each of the two members, wherein a quantity of advertisements associated with the profile is based on the weight of the link.

29. (Cancelled)

30. (Previously Presented) The medium of claim 26, the operations further comprising identifying one or more common interests of the plurality of members of the community based on the content of the profiles of the plurality of members.

31. (Cancelled)

32. (Cancelled)

33. (Previously Presented) The medium of claim 26, wherein the network comprises an online social network.

34. (Previously Presented) The medium of claim 33, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

35. (Previously Presented) The medium of claim 25, wherein a member of the network belongs to more than one community.

36. (Previously Presented) The medium of claim 25, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

37. (Previously Presented) The method of claim 1, wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members.

38. (Previously Presented) The method of claim 1, wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members.

39. (Previously Presented) The method of claim 1, wherein the common member is directly linked to another member of the plurality of members.

40. (Previously Presented) The medium of claim 25, wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members.

41. (Previously Presented) The medium of claim 25, wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members.

42. (Previously Presented) The medium of claim 25, wherein the common member is directly linked to another member of the plurality of members.

43. (Cancelled)

44. (Cancelled)

45. (Previously Presented) The method of claim 1, wherein associating advertisements with the profiles of each of the plurality of influencers comprises placing the advertisements on the profiles of each of the plurality of influencers.

46. (Previously Presented) The method of claim 1, further comprising:

determining that an influencer of the community is an influencer of another community within the network; and

associating advertisements relevant to the other community together with the advertisements with the profile of the influencer of the community and of the other community.

47. (Previously Presented) The method of claim 1, further comprising iteratively optimizing the community to account for addition and removal of members from the plurality of members.

48. (Cancelled)

49. (Cancelled)

50. (Previously Presented) The medium of claim 25, wherein associating advertisements with the profiles of each of the plurality of influencers comprises placing the advertisements on the profiles of each of the plurality of influencers.

51. (Previously Presented) The medium of claim 25, the operations further comprising:

determining that an influencer of the community is an influencer of another community within the network; and

associating advertisements relevant to the other community together with the advertisements with the profile of the influencer of the community and of the other community.

52. (Previously Presented) The medium of claim 25, the operations further comprising iteratively optimizing the community to account for addition and removal of members from the plurality of members.

53. (Previously Presented) The method of claim 1, wherein a member's score of influence is based on a quantity of members with whom the member is directly linked and a quantity of members with whom the member is indirectly linked.

54. (Previously Presented) The medium of claim 25, wherein a member's score of influence is based on a quantity of members with whom the member is directly linked and a quantity of members with whom the member is indirectly linked.

55. (New) A method for displaying advertisements to members of a network, the method comprising:

identifying, by a computer, a community within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the at least two indirectly linked members are each linked to a common member of the plurality of members;

determining a weight of the community by:

identifying a first quantity of links between the plurality of members in the community;

identifying a second quantity of links between members outside the community; and

determining the weight of the community as a ratio of the first quantity to the second quantity.

for each member of the community, determining a respective score of influence by determining a change between the weight of the community when the member is included in the community and a weight of the community when the member is excluded from the community;

ranking, by the computer, each of the plurality of members included in the community, wherein a rank of a member is based on the member's score of influence;

identifying, by the computer, a plurality of influencers in the community, wherein the plurality of influencers are members of the community with highest ranks; and

associating, by the computer, advertisements with the profiles of the plurality of influencers, wherein a quantity of advertisements associated with an influencer's profile depends upon a rank of the influencer in the community.

REMARKS

Claims 1-4, 6, 9-12, 25-28, 30, 33-42, 45-47, and 50-55 are pending, with claims 1, 25, and 55 being independent. Claims 5, 7, 8, 13-24, 29, 31, 32, 43, 44, 48, and 49 have been cancelled. Claims 1 and 25 have been amended. Claim 55 is new. No new subject matter has been added. Reconsideration and allowance are respectfully requested.

Examiner Interview

Examiner Brown is thanked for contacting Applicant's representative, Drew Schoentrup, on December 20, 2012. Examiner Brown proposed amendments to claims 1 and 25 to place the application in condition for allowance. Those amendments are reflected in the pending claims. In addition, Examiner Brown agreed that new claim 55 would be entered and was also in condition for allowance.

CONCLUSION

Applicants submit that the pending claims, as amended, are in condition for allowance, and request favorable consideration of these claims.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Please apply any necessary charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: December 20, 2012

/Drew W. Schoentrup/
Drew W. Schoentrup
Reg. No. 62543

Customer Number 26192
Fish & Richardson P.C.
Telephone: (858) 678-5070
Facsimile: (877) 769-7945

11220228.doc

Electronic Acknowledgement Receipt

EFS ID:	14533589
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	Drew Schoentrup/Michelle Melendez
Filer Authorized By:	Drew Schoentrup
Attorney Docket Number:	16113-0206001
Receipt Date:	20-DEC-2012
Filing Date:	29-DEC-2006
Time Stamp:	17:45:42
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Supplemental_Response.pdf	87300 2f691893812b35c2a7cd897f8399c93c61bbdf3f	yes	11

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Supplemental Response or Supplemental Amendment	1	1
	Claims	2	9
	Applicant Arguments/Remarks Made in an Amendment	10	11
Warnings:			
Information:			
	Total Files Size (in bytes):	87300	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 3622
Serial No.	: 11/618,506	Examiner	: Luis A. Brown
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT IN REPLY TO ACTION OF APRIL 12, 2012

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for displaying advertisements to members of a network, the method comprising:

identifying, by a computer, a community within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the at least two indirectly linked members are each linked to a common member of the plurality of members;

for each member of the community, determining a respective score of influence by determining a change between a weight of the community when a member is included in the community and the weight of the community when the member is excluded from the community;

ranking, by the computer, each of the plurality of members included in the community, wherein a rank of a member is based on ~~a quantity of members with whom the member is directly linked and a quantity of members with whom the member is indirectly linked~~ the member's score of influence;

identifying, by the computer, a plurality of influencers in the community, wherein the plurality of influencers are members of the community with highest ranks; and

associating, by the computer, advertisements with the profiles of the plurality of influencers, wherein a quantity of advertisements associated with an influencer's profile depends upon a rank of the influencer in the community.

2. (Previously Presented) The method of claim 1, further comprising receiving information pertaining to a plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and information describing one or more members with whom each of the plurality of members is linked.

3. (Previously Presented) The method of claim 2, wherein identifying the community comprises grouping members who are directly and indirectly linked to each other.

4. (Previously Presented) The method of claim 3, wherein two members are connected to each other through a link that has a weight, the method further comprising associating one or more advertisements with a profile of each of the two members, wherein a quantity of advertisements associated with the profile is based on the weight of the link.

5. (Cancelled)

6. (Previously Presented) The method of claim 2, further comprising identifying one or more common interests of the plurality of members of the community based on the content of the profiles of the plurality of members.

7. (Cancelled)

8. (Cancelled)

9. (Original) The method of claim 2, wherein the network comprises an online social network.

10. (Original) The method of claim 9, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

11. (Previously Presented) The method of claim 1, wherein a member of the network belongs to more than one community.

12. (Original) The method of claim 1, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

13. – 24. (Cancelled)

25. (Currently Amended) A computer-readable medium storing instructions executable by one or more processing devices to perform operations for displaying advertisements to members of a network, the operations comprising:

identifying a community within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the two members who are linked to each other indirectly are each directly linked to a same member of the plurality of members;

for each member of the community, determining a respective score of influence by determining a change between a weight of the community when a member is included in the community and a weight of the community when the member is excluded from the community;

ranking, by the computer, each of the plurality of members included in the community, wherein a rank of a member is based on ~~a quantity of members with whom the member is directly linked and a quantity of members with whom the member is indirectly linked~~ the member's score of influence;

identifying a plurality of influencers in the community, wherein the plurality of influencers are members of the community with highest ranks; and

associating advertisements with the profiles of the plurality of influencers, wherein a quantity of advertisements associated with an influencer's profile depends upon a rank of the

influencer in the community.

26. (Previously Presented) The medium of claim 25, the operations further comprising receiving information pertaining to the plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and information describing one or more members with whom each of the plurality of members is linked.

27. (Previously Presented) The medium of claim 26, wherein the operations for identifying the community further comprises grouping members who are directly and indirectly linked to each other.

28. (Previously Presented) The medium of claim 27, wherein two members are directly connected to each other through a link that has a weight, the method further comprising associating one or more advertisements with a profile of each of the two members, wherein a quantity of advertisements associated with the profile is based on the weight of the link.

29. (Cancelled)

30. (Previously Presented) The medium of claim 26, the operations further comprising identifying one or more common interests of the plurality of members of the community based on the content of the profiles of the plurality of members.

31. (Cancelled)

32. (Cancelled)

33. (Previously Presented) The medium of claim 26, wherein the network comprises an online social network.

34. (Previously Presented) The medium of claim 33, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

35. (Previously Presented) The medium of claim 25, wherein a member of the network belongs to more than one community.

36. (Previously Presented) The medium of claim 25, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

37. (Previously Presented) The method of claim 1, wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members.

38. (Previously Presented) The method of claim 1, wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members.

39. (Previously Presented) The method of claim 1, wherein the common member is directly linked to another member of the plurality of members.

40. (Previously Presented) The medium of claim 25, wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members.

41. (Previously Presented) The medium of claim 25, wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members.

42. (Previously Presented) The medium of claim 25, wherein the common member is directly linked to another member of the plurality of members.

43. (Currently Amended) The method of claim 1, further comprising determining [[a]] the weight of the community by:

identifying a first quantity of links between the plurality of members in the community;

identifying a second quantity of links between members outside the community; and

determining the weight of the community as a ratio of the first quantity to the second quantity.

44. (Cancelled)

45. (Previously Presented) The method of claim 1, wherein associating advertisements with the profiles of each of the plurality of influencers comprises placing the advertisements on the profiles of each of the plurality of influencers.

46. (Previously Presented) The method of claim 1, further comprising:

determining that an influencer of the community is an influencer of another community within the network; and

associating advertisements relevant to the other community together with the advertisements with the profile of the influencer of the community and of the other community.

47. (Previously Presented) The method of claim 1, further comprising iteratively optimizing the community to account for addition and removal of members from the plurality of members.

48. (Cancelled)

49. (Currently Amended) The medium of claim [[48]] 25, the operations further comprising determining the weight of the community by:

identifying a first quantity of links between the plurality of members in the community;

identifying a second quantity of links between members outside the community; and

determining the weight of the community as a ratio of the first quantity to the second quantity.

50. (Previously Presented) The medium of claim 25, wherein associating advertisements with the profiles of each of the plurality of influencers comprises placing the advertisements on the profiles of each of the plurality of influencers.

51. (Previously Presented) The medium of claim 25, the operations further comprising:

determining that an influencer of the community is an influencer of another community within the network; and

associating advertisements relevant to the other community together with the advertisements with the profile of the influencer of the community and of the other community.

52. (Previously Presented) The medium of claim 25, the operations further comprising iteratively optimizing the community to account for addition and removal of members from the plurality of members.

53. (New) The method of claim 1, wherein a member's score of influence is based on a quantity of members with whom the member is directly linked and a quantity of members with whom the member is indirectly linked.

54. (New) The medium of claim 25, wherein a member's score of influence is based on a quantity of members with whom the member is directly linked and a quantity of members with whom the member is indirectly linked.

REMARKS

Claims 1-4, 6, 9-12, 25-28, 30, 33-43, 45-47, and 49-54 are pending, with claims 1 and 25 being independent. Claims 44 and 48 have been cancelled in this response without prejudice or disclaimer. Claims 1, 25, 43, and 49 have been amended. Claims 53 and 54 are new. No new subject matter has been added. Support for the amendments appears in the application as filed at least at paragraphs [0044]-[0047] and Figs. 3A-3C. Reconsideration and allowance are respectfully requested.

Examiner Interview

Examiner Brown is thanked for participating in a telephone interview with Drew Schoentrup on August 13, 2012. During this interview, Examiner Brown and Mr. Schoentrup discussed claims 43 and 44 in view of the Atazky, Ebanks, and Meng Muntz references. Examiner Brown agreed that the references of record did not appear to teach the subject matter recited in claims 43 and 44. Mr. Schoentrup agreed to amend claim 1 to include features recited in claim 44 and to amend claim 25 to include features recited in claim 48.

Rejections under 35 U.S.C. § 103(a)

Claims 1-3, 6, 9-12, 25-27, 30, 33-37, 39, 42, 45, and 50 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Atazky, (US 2007/0121843) in view of Ebanks, (US 2007/0198510). Claims 4 and 28 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Atazky, (US 2007/0121843) in view of Ebanks, (US 2007/0198510) and in further view of McCuller (US 2007/0260725). Claims 38, 40, and 41 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Atazky, (US 2007/0121843) in view of Ebanks, (US 2007/0198510), and in further view of Zhuang (US 2008/0070209). Claim 43 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Atazky, (US 2007/0121843) in view of Ebanks, (US 2007/0198510), and in further view of Meng Muntz (US 2006/0271564). Claims 46 and 51 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Atazky, (US 2007/0121843) in view of Ebanks, (US 2007/0198510), and in

further view of Meek (US 2008/0005072). Claims 47 and 52 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Atazky, (US 2007/0121843) in view of Ebanks, (US 2007/0198510), and in further view of Official Notice. These rejections and their underlying rationale are traversed in their entirety.

Independent Claim 1

Claim 1 has been amended to include features previously recited in claim 44. As discussed with Examiner Brown, the references of record – whether taken alone or in any hypothetical combination – do not teach, suggest, or make obvious "for each member of the community, determining a respective score of influence ***by determining a change between a weight of the community when a member is included in the community and the weight of the community when the member is excluded from the community***; [and] ranking, by the computer, each of the plurality of members included in the community, wherein a rank of a member ***is based on the member's score of influence***," as recited in claim 1.

Therefore, withdrawal of the rejection of claim 1 and its respective dependent claims under 35 U.S.C. § 103 is respectfully requested.

Dependent Claim 43

Dependent claim 43 is allowable for at least the reasons that claim 1, the claim from which claim 43 depends, is allowable and for reciting allowable subject matter in its own right. In that regard, claim 43 recites "identifying a first quantity of links between the plurality of members in the community; identifying a second quantity of links between members outside the community; and ***determining the weight of the community as a ratio of the first quantity to the second quantity***." As discussed with Examiner Brown, the references of record – whether taken alone or in any hypothetical combination – do not teach, suggest, or make obvious features recited in claim 43.

Therefore, withdrawal of the rejection of claim 43 under 35 U.S.C. § 103 is respectfully requested.

Independent Claim 25

While covering different subject matter, claim 25 includes features similar to those discussed with respect to claim 1. Therefore, the rejection of claim 25 and its respective dependent claims under 35 U.S.C. § 103 should be withdrawn for at least the reasons discussed with respect to claim 1.

Dependent claim 49

While covering different subject matter, dependent claim 49 includes features similar to those discussed with respect to dependent claim 43. Therefore, the rejection of dependent claim 49 under 35 U.S.C. § 103 should be withdrawn for at least the reasons discussed with respect to dependent claim 43.

CONCLUSION

Applicants submit that the pending claims, as amended, are in condition for allowance, and request favorable consideration of these claims.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Please apply $560 for a two month extension of time fee and any other necessary charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: September 6, 2012

/Drew W. Schoentrup/
Drew W. Schoentrup
Reg. No. 62543

Customer Number 26192
Fish & Richardson P.C.
Telephone: (858) 678-5070
Facsimile: (877) 769-7945

11220228.doc

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 3622
Serial No.	: 11/618,506	Examiner	: Luis A. Brown
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Please consider the references listed on the enclosed PTO-1449 form. Foreign patent documents and non-patent literature are enclosed; cited U.S. patents and patent application publications will be provided on request. A copy of a communication from a foreign patent office in a counterpart application is also enclosed.

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. I, the undersigned, hereby certify that each item of information contained in this statement was first cited in a communication from a foreign patent office in a counterpart foreign application, the communication being dated July 10, 2012, which is not more than three months prior to the filing of this statement. Please apply any necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

Date: September 6, 2012

/Drew W. Schoentrup/
Drew W. Schoentrup
Reg. No. 62543

Customer Number 26192
Fish & Richardson P.C.
Telephone: (858) 678-5070
Facsimile: (877) 769-7945

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 3622

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	1						
	2						
	3						
	4						
	5						
	6						
	7						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
	8	1209599	05/2002	EP				
	9	2005244647	09/2005	JP			Abstract Only	
	10	2005174149	06/2005	JP			Abstract Only	
	11	2006309600	11/2006	JP			Abstract Only	

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	12	Corporate Marketing using Specialized Social Networking Services, SNS Business Guide, Impress Japan Corporation, July 11, 2006, First Publication, pp. 113-116 (no English version available)
	13	Matsuno, Hiroichi, Examiner, Japanese Patent Office, JP Application No. 2009-544187, Office Action dated July 2, 2012, 10 pages
	14	Oomukai, Kazuki, Current Status and Future Perspectives of Social Networking Services, Information Processing, Information Processing Society of Japan, September 15, 2006, Vol. 47, No. 9, pp. 993-1000 (no English version available)
	15	Takami, Shinya et al., Buzz Marketing in the Web Log Communities, DEWS 2006 Proceedings [ONLINE], Institute of Electronics, Information and Communication Engineers Data Engineering Research Board, June 30, 2006 [no English version available)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 209 599 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
29.05.2002 Bulletin 2002/22

(51) Int Cl.[7]: **G06F 17/60**, G06F 17/30

(21) Application number: **01127836.3**

(22) Date of filing: **22.11.2001**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **22.11.2000 JP 2000355405**

(71) Applicant: **MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.**
Kadoma-shi, Osaka 571-8501 (JP)

(72) Inventors:
- **Kudo, Takahiro**
  Kadoma-shi, Osaka 571-0064 (JP)
- **Matsuura, Satoshi**
  Kyotanabe-shi, Kyoto 610-0331 (JP)
- **Ozawa, Jun**
  Nara-shi, Nara 631-0005 (JP)

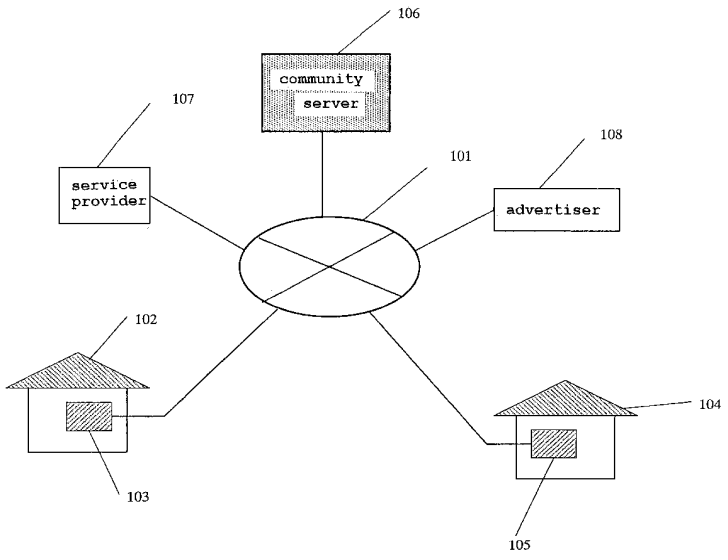
(74) Representative: **Grünecker, Kinkeldey,**
Stockmair & Schwanhäusser Anwaltssozietät
Maximilianstrasse 58
80538 München (DE)

(54) Group forming system, group forming apparatus, group forming method, program, and medium

(57) A group forming system has

a terminal apparatus which is connected to a network;
accumulating means of obtaining information including at least one of personal information and preference information of a user of the terminal apparatus, and of accumulating the obtained information;
classifying means of classifying a whole or a part of the information accumulated in the accumulating means, into a single or plural groups on the basis of a predetermined classification criterion; and
determining and notifying means of determining the group to which the user is to belong, from the classified groups on the basis of predetermined relationships between the user and the accumulated information, and of notifying the user of a result of the determination.

Fig. 1



EP 1 209 599 A2

Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to a group forming system, a group forming apparatus, a group forming method, a program, and a medium which are used for forming a group (hereinafter, often referred to as community) on the Internet in which plural users exchange information.

Related Art of the Invention

[0002] At present, on the Internet, there are a large number of so-called communities such as bulletin boards and mailing lists in which general users exchange information. A user uses a search service through a browser to conduct a search while inputting a keyword of the user's interest. Then, the user reads information of a Web page which is obtained as a result of the search. If there is a community such as a bulletin board or a mailing list in the page, the user joins the community. Alternatively, a user may obtain information of such a community from a friend or an acquaintance, and then join the community.

[0003] Japanese Patent Publication (Kokai) No. 2000-76307 discloses a technique in which a terminal on the side of a user monitors actions of the user on the Internet and automatically produces profile information of the user, and, when the user searches for information, filtering is performed on a result of the search by using the profile information. According to the technique, selection of information is automated by using profile information.

[0004] In the conventional art, however, formation and operation of such a community are not automated, but manually performed.

[0005] Specifically, in order to manage a community, the following actions must be performed:

1. Creation of a community
2. Collection of members
3. Operation of the community

[0006] In the operation of the community, it is required to take measures for monitoring arguments in the community are monitored, deleting an inadequate message, and, when the community enters an inactivated state, activating the community. In the present state, these actions are manually performed, and very cumbersome.

[0007] By contrast, a user wishes to find a community of the user's interest by means of searching. However, a community suitable to the user cannot be always found depending on the skill of searching, and, even when the user has once joined a community, the user may feel that the community is not suitable to the user. In such a case, the user must again conduct a similar searching work, thereby producing a problem in that such a work is cumbersome.

SUMMARY OF THE INVENTION

[0008] In view of the problems of the conventional art, it is an object of the invention to provide a group forming system, a group forming apparatus, a group forming method, a program, and a medium which enable for example formation, operation, and activation of a community on the Internet to be performed in a manner which is not cumbersome as compared with the conventional art.

[0009] The 1st invention of the present invention is a group forming system comprising:

a terminal apparatus which is connected to a network;

accumulating means of obtaining information including at least one of personal information and preference information of a user of said terminal apparatus, and of accumulating the obtained information;

classifying means of classifying a whole or a part of the information accumulated in said accumulating means, into a single or plural groups on the basis of a predetermined classification criterion; and

determining and notifying means of determining the group to which the user is to belong, from the classified groups on the basis of predetermined relationships between the user and the accumulated information, and of notifying the user of a result of the determination.

[0010] The 2nd invention of the present invention is a group forming apparatus comprising:

accumulating means of obtaining information including at least one of personal information and preference information of a user of a terminal apparatus which is connected to a network, and of accumulating the obtained information;

classifying means of classifying a whole or a part of the information accumulated in said accumulating means, into a single or plural groups on the basis of a predetermined classification criterion; and

determining and notifying means of determining the group to which the user is to belong, from the classified groups on the basis of predetermined relationships between the user and the accumulated information, and of notifying the user of a result of the determination.

[0011] According to the configuration, while the user of the terminal apparatus ordinarily exchanges mails or browses the Web by using the terminal apparatus, for example, information indicating the preference of the

user is extracted. The extracted information is transmitted to the server to be centrally managed thereby. From preference information of plural users, therefore, a conceptual structure is automatically constructed in accordance with similarity of the information, and a certain constructed concept is configured as a community, whereby formation of a community and allocation of members can be automatically performed.

[0012] According to the configuration, furthermore, profile information of high confidentiality such as the hobby and preference of the user can be managed by the server without being disclosed to a third person.

[0013] The 3rd invention of the present invention is a group forming apparatus according to 2nd invention, wherein said apparatus further comprises activity judging means of judging a degree of activity of the group on the basis of a history and/or a frequency of postings of information to the group from the user belonging to the group, and

from a result of the judgement, it is determined whether a whole or a part of the classification is reorganized or not, in accordance with the degree of activity of the group.

[0014] According to the configuration, in the case where exchanges of views which are the proper object of the community are not performed because the discussion is exhausted or members are uncongenial, for example, the community can be reorganized.

[0015] The 4th invention of the present invention is a group forming apparatus according to 2nd invention, wherein said apparatus further comprises:

keyword judging means of judging whether or not a preregistered keyword is included in information which is posted to the group from the user belonging to the group; and

provided information providing means of, if a result of the judgement shows that the keyword is included, providing provided information which is previously stored with being paired with the keyword, to the group or the user posting the information to the group, on the basis of a predetermined criterion.

[0016] According to the configuration, with respect to a keyword which is one of keywords posted to the community, and which seems to be difficult to understand for most people, for example, explanation information of the keyword can be presented to the community, or an enterprise or an organization having information which is to be known or advertised to a member posting the keyword can provide the information for the member.

[0017] The 5th invention of the present invention is a group forming apparatus according to 2nd invention, wherein said apparatus further comprises monitoring means of monitoring plural sets of information which are posted to the group from the user belonging to the group, and

in accordance with similarity of the plural sets of monitored information, the group is divided, or plural groups are integrated with each other.

[0018] According to the configuration, for example, communities in which views on similar subjects are exchanged can be integrated with each other. In the case where, even in the same community, views of different subjects are exchanged among members, the community can be divided so that a new community is configured by members discussing similar subjects.

[0019] The 6th invention of the present invention is a group forming apparatus according to 2nd invention, wherein said apparatus further comprises:

advertisement content storing means of storing an advertisement content for providing an advertisement to the group, and conditions for the provision in correspondence with one another;

history/frequency storing means of storing a history and/or a frequency of information posted to the group from the user belonging to the group; and

advertisement content providing means of searching contents stored in said history/frequency storing means for contents satisfying the conditions, and of providing the corresponding advertisement content to a user belonging to the group, or the group.

[0020] According to the configuration, for example, an enterprise which wishes to display an advertisement can designate conditions so as to select a community to which the advertisement is to be displayed. Therefore, an effective advertisement is enabled.

[0021] The 7th invention of the present invention is a group forming method comprising;

an accumulating step of obtaining information including at least one of personal information and preference information of a user of a terminal apparatus, and of accumulating the obtained information;

a classifying step of classifying a whole or a part of the accumulated information into a single or plural groups on the basis of a predetermined classification criterion; and

a determining and notifying step of determining a group to which the user is to belong, from the classified groups on the basis of predetermined relationships between the user and the accumulated information, and of notifying the user of a result of the determination.

[0022] The 8th invention of the present invention is a group forming method according to 7th invention, wherein, in said accumulating step, also information related to the classified groups is accumulated, and

in said classifying step, the classification is performed in consideration of also the accumulated information related to the groups.

[0023] The 9th invention of the present invention is a

group forming method comprising:

a storing step of storing personal information or preference information of a user belonging to a group which is formed on Internet, with classifying the information into first information which shows a stable tendency for a predetermined time period, and second information which, for the predetermined time period, shows a degree of change in tendency that is larger than a degree of change in tendency of the first information;
a classification result obtaining step of, on the basis of a first classification criterion, classifying a whole or a part of information including the first information in the stored information, into a single or plural groups to obtain a first classification result, and of, on the basis of a second classification criterion, classifying a whole or a part of information including the second information, into a single or plural groups to obtain a second classification result; and
a determining and notifying step of determining the group by using the first classification result, of determining the group by using the second classification result, and of notifying the user of results of the determinations.

[0024] According to the configuration, for example, long-term preference information in which the user has been lastingly interested, and short-term information in which the user is interested because it is the talk of the town are used in formation of a conceptual structure, thereby allowing users to be allocated to communities in accordance with their respective preference information.

[0025] The 10th invention of the present invention is a group forming method comprising:

an activity judging step of judging a degree of activity of a group which is formed on Internet, on the basis of a history and/or a frequency of postings of information to the group from a user belonging to the group;
a determining step of, from a result of the judgement, determining whether a whole or a part of single or plural groups is reorganized or not, in accordance with the degree of activity of the group; and
a reorganizing step of reorganizing the groups on the basis of a result of the determination.

[0026] According to the configuration, in the case where exchanges of views which are the proper object of the community are not performed because the discussion is exhausted or members are uncongenial, for example, the community can be reorganized.

[0027] The 11th invention of the present invention is a group forming method comprising:

a judging step of judging whether or not a preregistered keyword is included in information which is posted to a group that is formed on Internet; and
a providing step of, if a result of the judgement shows that the keyword is included, providing provided information which is previously stored with being paired with the keyword, to the group or a user posting the information to the group, on the basis of a predetermined criterion.

[0028] According to the configuration, with respect to a keyword which is one of keywords posted to the community, and which seems to be difficult to understand for most people, for example, explanation information of the keyword can be presented to the community, or an enterprise or an organization having information which is to be known or advertised to a member posting the keyword can provide the information for the member.

[0029] The 12th invention of the present invention is a group forming method according to 11th invention, wherein the provision of the provided information on the basis of the predetermined criterion includes the steps of: on the basis of at least one of personal information and preference information of a user belonging to the group, judging whether the user has known the keyword or not; and, if it is judged that the user has not yet known the keyword, providing the provided information.

[0030] According to the configuration, when a certain keyword is posted, for example, a profile of a member such as preference information is referred, whereby explanation information can be presented only to a user who seems to be unfamiliar to the keyword.

[0031] The 13th invention of the present invention is a group forming method comprising:

a monitoring step of monitoring plural sets of information posted to a group which is formed on Internet; and
a step of, in accordance with similarity of the plural sets of information, automatically dividing a mass, or integrating plural masses together.

[0032] According to the configuration, for example, communities in which views on similar subjects are exchanged can be integrated with each other. In the case where, even in the same community, views of different subjects are exchanged among members, the community can be divided so that a new community is configured by members discussing similar subjects.

[0033] The 14th invention of the present invention is a group forming method comprising the steps of:

previously storing an enterprise which wishes to display an advertisement to a mass, an advertisement content which the enterprise wishes to display, and conditions for displaying the advertisement with being paired with each other;
storing a history of information posted to a group which is formed on Internet; and

if the history of posted information satisfies the conditions for displaying the advertisement, providing the advertisement content to the group.

[0034] According to the configuration, for example, an enterprise which wishes to display an advertisement can designate conditions so as to select a community to which the advertisement is to be displayed. Therefore, an effective advertisement is enabled.

[0035] The 15th invention of the present invention is a group forming method according to 14th invention, wherein the history of posted information is stored in the form of a pair of a keyword and the number of postings of the keyword.

[0036] The 16th invention of the present invention is a group forming method according to 14th invention, wherein the condition is a keyword and a lower limit of the number of postings of the keyword to the group,

the history of posted information is stored in the form of a pair of a keyword and the number of postings of the keyword, and

satisfaction of the condition is that a keyword which is the history of posted information and the number of postings of the keyword satisfy the condition.

[0037] The 17th invention of the present invention is a program for causing a computer to function as a whole or a part of said accumulating means, said classifying means, and said determining and notifying means of said group forming apparatus according to 2nd invention.

[0038] The 18th invention of the present invention is a program for causing a computer to perform a whole or a part of said steps of said group forming method according to any one of 7th to 16th inventions.

[0039] The 19th invention of the present invention is a medium which carries a program for causing a computer to function as a whole or a part of said accumulating means, said classifying means, and said determining and notifying means of said group forming apparatus according to 2nd invention, said medium being processable by a computer.

[0040] The 20th invention of the present invention is a medium which carries a program for causing a computer to perform a whole or a part of said steps of said group forming method according to any one of 7th to 16th inventions, said medium being processable by a computer.

[0041] As described above, according to the configuration, on the basis of profile information which is automatically collected, and which relates to preference, interest, and purchase of users, for example, communities can be automatically created in accordance with the similarity, and members can be allocated to the communities.

[0042] The activation state of a community is judged on the basis of the state of postings by members. If the state is inactive, or when communities are in a state where a more suitable community can be created, communities can be appropriately reorganized.

[0043] Although a community handles profile information of high confidentiality, it is possible to prevent the information from leaking to a third person, thereby enabling privacy of a member to be guarded.

[Brief Description of the Drawings]

[0044]

Fig. 1 is a system diagram of an embodiment.
Fig. 2 is a diagram of an information terminal in the embodiment.
Fig. 3 is a flowchart of production of preference information in the information terminal.
Fig. 4 is a view showing a language data.
Fig. 5 is a view showing a result of a morphological analysis performed on the language data.
Fig. 6 is a view showing extracted nouns.
Fig. 7 is a view showing a preference history data.
Fig. 8 is a view showing the updated preference history data.
Fig. 9 is a view showing a personal information data.
Fig. 10 is a view showing a preference information data.
Fig. 11 is a view showing the format of a transmission data.
Fig. 12 is a view showing a data for producing a transmission data.
Fig. 13 is a view showing a tagged preference information data.
Fig. 14 is a view showing a procedure of producing a signature.
Fig. 15 is a view showing a transmission data in the information terminal, and a received data in a community server.
Fig. 16 is a diagram of the community server.
Fig. 17 is a flowchart of an authentication procedure.
Fig. 18 is a view showing a data of a method database.
Fig. 19 is a view showing the authentication procedure.
Fig. 20 is a view showing a registered user data.
Fig. 21 is a conceptual diagram of clustered categories.
Fig. 22A is a view showing a clustering operation (new preference information is added into each existing categories).
Fig. 22B is a view showing a clustering operation (a new category is created in the same level as existing categories).
Fig. 23A is a view showing a clustering operation (integration of categories).
Fig. 23B is a view showing a clustering operation (separation of a category).
Fig. 24 is a diagram of a community server in Embodiment 3.

Fig. 25 is a view showing a data stored in a preference history database.
Fig. 26 is a view showing preference information which is produced with reflecting a preference history.
Fig. 27 is a diagram of a community server in Embodiment 4.
Fig. 28 is a view showing a degree-of-activity judgement criterion.
Fig. 29 is a diagram of a community server in Embodiment 5.
Fig. 30 is a view showing information which is posted by a user to a community.
Fig. 31 is a view showing an example of a data which is stored in a provided-information storage database.
Fig. 32 is a view showing another example of the data which is stored in the provided-information storage database.
Fig. 33 is a diagram of a community server in Embodiment 6.
Fig. 34 is a view showing a data which is stored in a keyword storage database.
Fig. 35 is a view showing a data which is stored in an advertiser database.
Fig. 36 is a diagram of a community server in Embodiment 7.
Fig. 37 is a view showing an example of information which is posted to a community.
Fig. 38 is a view showing a tree-structure data expressing concepts of terms.
Fig. 39A and Fig.39B are views showing explanation formation of terms displayed in a community site.
Fig. 40 is a diagram of a community server in Embodiment 8.
Fig. 41 is a view showing a conceptual tree structure of terms, and keywords featuring the terms.
Fig. 42 is a view showing an example of a data stored in a community similarity storing section.
Fig. 43 is a view showing an example of information which is posted to a community site.
Fig. 44 is a view showing another example of a data stored in the community similarity storing section.
Fig. 45 is a diagram of a community server in Embodiment 9.
Fig. 46 is a view showing an example of a data stored in a keyword storing section.
Fig. 47 is a view showing an example of information which is posted to the community site.
Fig. 48 is a view showing an example of a data stored in the keyword storing section.
Fig. 49 is a view showing an example of a portal site of a community.

Reference Numerals and Signs

[0045]

101	Internet
102	user 1
103	information terminal 1
104	user 2
105	information terminal 2
106	community server
197	service provider
108	advertiser
201	browser
202	language processing section
203	feature extracting section
204	personal information database
205	preference history storage database
206	preference producing section
207	transmission data producing database
208	key database
209	signature section
210	transmission data producing section
211	data transmitting section
301	morpheme analyzing step
302	noun extracting step
303	noun word selecting step
304	history referring step
305	occurred and existing noun checking step
306	frequency of occurrence adding step
307	term registering step
308	frequency of occurrence registering step
309	other noun existence confirming step
310	weight calculating step
311	history updating step
312	personal information providing step
401	language data
501	morphological analysis result
601	noun extraction data
701	preference history data
801	updated preference history data
901	personal information data
1001	preference information
1101	transmission data format
1102	Profile description part
1103	Action description part
1104	Contents description part
1201	detailed item of Profile
1202	detailed item of Action
1301	tagged preference information data
1401	key producing section
1402	private key
1403	public key
1491	Signature
1405	transmission data
1601	data receiving section
1602	authentication rule storage database
1603	method database
1604	registrant information management database

1605 data authenticating section
1606 preference information extracting section
1607 classification concept database
1608 preference accumulation database
1609 classifying section
1610 classification information transmitting section
1701 data receiving step
1702 signature matching confirming step
1703 format matching confirming step
1704 registrant identifying step
1705 error processing step
1706 preference information obtaining step
1801 signature authentication method
1802 format authentication method
1803 user information authentication method
1804 preference information extraction method
1901 format that received data should have
1902 user data
2101 one example of nodes indicating branches of clustering
2102 one example of category of clustering
2103 category of clustering
2201 operation of adding to current category
2202 operation of newly creating category
2301 operation of integrating categories
2302 operation of separating category
2401 preference history database
2402 preference history reflection data producing section
2501 data showing change of preference of certain user
2601 preference information data which is produced by reflecting history
2701 activity judging section
2702 posted-information storage database
2801 degree-of-activity judgement criterion
2901 posted-information monitoring section
2902 provided-information storage database
2903 keyword matching section
2904 provided-information displaying section
3001 data posted by user
3101 example of data of provided-information storage database
3201 example of data of provided-information storage database
3301 data of keyword storage database
3302 keyword adding section
3303 data of advertiser database
3304 advertisement display judging section
3305 advertisement displaying section
3401 data of keyword storage database before incrementation
3402 data of keyword storage database after incrementation
3501 data of advertiser database
3601 display information determining section
3602 concept storage database
3603 profile managing section
3604 explanation information storage database
4001 posted-information storage database 1
4002 posted-information storage database 2
4003 posted-information storage database N
4004 conceptual structure database
4005 posted-information extracting section
4006 community similarity adding section
4007 community similarity storing section
4008 similar-community judging section
4501 posted-information storage database
4502 keyword adding section
4503 keyword storing section
4504 independent-community judging section

PREFERRED EMBODIMENTS OF THE INVENTION

[0046] Hereinafter, embodiments of the invention will be described with reference to the accompanying drawings.

[0047] Fig. 1 is a diagram showing the whole system configuration.

[0048] In Fig. 1, 101 denotes a network such as the Internet.

[0049] The reference numerals 102 and 104 denote users who are joining or intend to join a community, and 103 and 105 denote information terminals which, when the corresponding user is to join a community, collect and generate preference information that is required for judging which community is adequate.

[0050] The reference numeral 106 denotes a server which manages communities. The server receives user preference information which is transmitted from the users 102 and 104, performs clustering on the users on the basis of plural sets of accumulated preference information of plural users, and received preference information, and grasp a created class as a community. Thereafter, the server transmits to a user information indicating the community to which the user belongs.

[0051] The reference numeral 107 denotes a service provider which provides to a user product information, service information, or the like which relates to the subject of discussions in a community. The reference numeral 108 denotes an advertiser who provides advertisement information to a community which a user joins.

(Embodiment 1)

[0052] In a first embodiment, a procedure of automatically extracting preference information of a user by an information terminal, transmitting data to which a digital signature is added to provide a function of authenticating, to a server, performing authentication on the received data by the server, and extracting the preference information of the user from the received data will be described.

[0053] Fig. 2 is a view showing a modeling of a process of extracting preference of a user from information which the user reads through a browser, and transmit-

ting data.

[0054] In Fig. 2, 201 denotes a browser such as Internet Explore, and 202 denotes a language processing section which performs language processing such as a morphological analysis on language information that is read through the browser 201.

[0055] The reference numeral 203 denotes a feature extracting section which extracts data indicating preference of the user from the data which is processed by the language processing section 202.

[0056] The reference numeral 204 denotes a personal information database which stores information relating to a user such as the distinction of sex, the age, and interests of the user.

[0057] The reference numeral 205 denotes a preference history storage database which, when the user has already held preference information, stores the preference information.

[0058] The reference numeral 206 denotes a preference producing section which produces new preference information of a user from user preference information which is output from the feature extracting section 203 with respect to contents of the browser that the user reads, personal information which is output from the personal information database 204, and preference history information which is output from the preference history storage database 205.

[0059] The reference numeral 207 denotes a transmission data producing database which stores formats of data that will be used in transmission of preference information as a transmission data.

[0060] The reference numeral 208 denotes a key database which stores keys that will be used in the provision of digital signature.

[0061] The reference numeral 209 denotes a signature section which provides a signature to a data by using a key of the key database 208.

[0062] The reference numeral 210 denotes a transmission data producing section which performs tagging in accordance with a format stored in the transmission data producing database, transfers tagged information to the signature section 209, receives a signature from the signature section 209, provides the signature to tagged data to produce a transmission data.

[0063] The reference numeral 211 is a data transmitting section which transmits the data produced in the transmission data producing section 210.

[0064] Next, the operation in the case where a language data shown in Fig. 4 is input through a browser will be described with reference to the flowchart of Fig. 3. The Japanese language data shown in Fig.4 means that "in the professional baseball, in response to the end of the Japan series, execution of right of a player having the right of free agent (FA) in which transference can be freely performed is enabled on the 30th day."

[0065] In step 301 which corresponds to the operation of the language processing section 202, the language data 401 is morphologically analyzed to obtain a morphological analysis result indicated by 501 in Fig. 5.

[0066] In step 302 which corresponds to the operation of the feature extracting section 203, only nouns are extracted from the data which has been morphologically analyzed, and a data indicated by 601 in Fig. 6 and configured by terms and the frequencies of occurrence of the terms is produced.

[0067] Steps 303 to 309 correspond to the operation of the preference producing section 206. In the steps, a word is selected one by one from the noun data 601, and, with reference to a data 701 stored in the preference history storage database 205, it is judged whether the selected noun is already stored in the database 205 or not. In the preference history storage database 205, current history information of preference of a person is stored. As shown in the preference history data 701 of Fig. 7, the information includes words as attributes, and frequencies of occurrence of reading by the user and rates (weights) of frequencies of occurrence of all words in each of which the frequency of occurrence is stored, as attribute values.

[0068] The word "professional baseball" in the extracted noun data 601 (see Fig. 6) will be considered. Since "professional baseball" is stored in the preference history data 701 (see Fig. 7), the addition of the frequency of occurrence in step 306 is implemented to increment the frequency of occurrence by one, so that the frequency of occurrence is set to "eleven".

[0069] In step 309, it is judged whether a noun which has not yet been selected in the noun data 601 exists or not. If exists, subsequent nouns "Japan" and "series" are sequentially selected in steps 303 to 305. Referring to the preference history data 701, it is judged whether the nouns are already stored or not.

[0070] Then, the case where last noun "free agent" in the noun data 601 is selected will be considered.

[0071] In step 304, referring to the preference history data 701, it is judged that "free agent" has not yet occurred. In steps 307 and 308, word "free agent" as an attribute, and the frequency of occurrence of the word, "1" are newly registered into the preference history data 701. In step 309, it is then judged that a word which has not yet been selected in the noun data 601 does not exist.

[0072] In steps 310 and 311, from all frequencies of occurrence of the preference history data 701 to which the noun data 601 is added, weights of the words serving as attributes are calculated as attribute values, and a new preference history data indicated by 801 in Fig. 8 is produced.

[0073] In step 312, a personal information data shown in Fig. 9 and stored in the personal information database 204 is added to the new preference history data 801 which is produced as described above, and a preference information data 1001 shown in Fig. 10 is produced as new preference information.

[0074] The transmission data producing section 210 receives the preference information 1001 which is pro-

duced by the preference producing section 206 in the above-mentioned flowchart. The transmission data producing section 210 produces a transmission data of a format which is tagged as indicated by 1101 in Fig. 11. For example, XML can be used as the tagging rule.

[0075] In the figure, 1102 denotes "Profile" information of the transmission data. As described in 1202 of Fig. 12, the detail of "Profile" information is configured by:

> "Destination IP address" indicating the destination of the transmission data; "Source IP address" indicating the source from which the transmission data is transmitted; "Name" of the user; and "Signature" which is added to the transmission data by the signature section 209.

[0076] In Fig. 11, 1103 denotes methods which can be applied on the transmission data in the reception side, and which are described as "Action" information. As described in 1202 of Fig. 12, the detail of "Action" information is configured by: a method of extracting preference information included in the transmission data; and a method of extracting personal information included in the transmission data.

[0077] In Fig. 11, the preference information 1001 which is produced by the preference producing section 206 is described in Contents part 1104 enclosed by <Contents> tag.

[0078] The tag names, Agent, Profile, Action, and Contents may be replaced with other names or symbols as far as they can be uniquely identified in the transmission and reception sides.

[0079] A data which is tagged as shown in Fig. 13, i. e., a tagged data 1301 is produced by the transmission data producing database 207 and the transmission data producing section 210.

[0080] For the operation of the signature section 209, "pair" of "private key" and "public key" are previously produced. "Private key" is stored in the key database 208. By contrast, "public key" is stored in the server which is to receive a transmission data.

[0081] The "pair" of keys may be produced in an information terminal of a user, and "public key" may be then transmitted to the server. Alternatively, the keys may be produced in the server, and "private key" may be stored into the key database 208 of the user by means of downloading or another storage medium. In order to improve the security, a public key and a private key may be newly produced at predetermined time intervals.

[0082] A procedure of adding "Signature" to the tagged data 1301 to produce a transmission data 1405 will be described with reference to Fig. 14.

[0083] In Fig. 14, 1401 denotes a key producing section which produces "pair" of "private key" and "public key" for data authentication.

[0084] The reference numeral 1402 denotes the private key which is stored in the key database 208, and 1403 denotes the public key which is stored in the server.

[0085] The signature section 209 receives the tagged data 1301 from the transmission data producing section 210, takes out "private key" 1402 from the key database 208, and produces "Signature".

[0086] "Signature" which is produced in the signature section 209 is returned to the transmission data producing section 210. The transmission data producing section 210 provides "Signature" 1404 to the tagged data 1301 to produce a transmission data 1405 shown in Fig. 15, and sends the transmission data 1405 to the data transmitting section 211.

[0087] Next, a procedure in which the server 106 (see Fig. 1) receives the transmission data 1405 which is transmitted from the information terminal of the user, performs authentication, and extracts preference information of the user from the transmission data 1405 will be described.

[0088] Fig. 16 is a view showing a modeling of the process.

[0089] In Fig. 16, 1601 denotes a data receiving section which receives the transmission data 1405 transmitted from the information terminal of the user.

[0090] The reference numeral 1603 denotes a method database which stores methods that can be applied to a received data by the server.

[0091] The reference numeral 1604 denotes a registrant information management database which manages information of users registered in the server.

[0092] The reference numeral 1602 denotes an authentication rule storage database which stores a rule for performing authentication on the data 1405 received by the data receiving section 1601.

[0093] The reference numeral 1605 denotes a data authenticating section which performs authentication on the received data 1405 by using a method stored in the method database 1603 with reference to the registrant information management database 1604 and the authentication rule storage database 1602.

[0094] The reference numeral 1606 denotes a preference information extracting section which extracts preference information with reference to a method of extracting preference information of the user from a data that is authenticated by the data authenticating section 1605, among the methods stored in the method database 1603.

[0095] The procedure of authentication will be described with reference to the flowchart of Fig. 17, and Fig. 19.

[0096] In step 1701 corresponding to the operation of the data receiving section 1601, the data transmitted by the user is received.

[0097] Steps 1702 to 1704 correspond to the operation of the data authenticating section 1605. The methods of the method database 1603 which will be used in the data authenticating section 1605 will be described

with reference to Fig. 18. The reference numeral 1801 denotes a signature authentication method which performs authentication on the signature written in the received data, 1802 denotes a format authentication method which performs authentication on the format of the received data, and 1803 denotes a user information authentication method which performs authentication on the user information 'written in the received data.

[0098] First, in step 1702, the signature authentication method 1801 performs authentication on the signature of the received data 1405 to check whether the signature is correct or not, by using the public key 1403 (produced by the key producing section 1401 of Fig. 1 4) which is stored in the authentication rule storage database 1602. If the. signature is proved to be adequate, the format authentication method 1802 performs authentication on the received data 1405 by using a data 1901 which is stored similarly in the authentication rule storage database 1602, and which describes a format that the received data should have. The format data 1901 shows that, in the format that the received data should have, the outermost frame is enclosed by "<Agent>" tag and "</Agent>" tag and data are described between the tags with being enclosed by "<Profile>" and "</Profile>", "<Action>" and "</Action>", and "<Contents>" and "</Contents>". If the format is correct, it is judged in step 1704 whether the user data 1902 which is managed by the registrant information management database 1604 coincides with the received data 1405 or not. Fig. 20 shows the user data 1902 in detail.

[0099] It is judged whether the user name and the password in the data which is managed in the user data 1902 in Fig. 20 coincide with "Profile" information of the received data 1405 or not.

[0100] If the received data 1405 is not authenticated in any one of steps 1702 to 1704, an error process is performed in step 1705.

[0101] In step 1706 corresponding to the operation of the preference information extracting section 1606 of Fig. 16, the preference information of the user is extracted from the data which is authenticated in steps 1702 to 1704, by using a preference information extraction method 1804 which is stored in the method database 1603.

[0102] In the embodiment, keywords extracted from the Web reading history by a browser are assumed as the data for producing preference information of the user. The data is not restricted to the above, and a data such as a history and tendency of purchase of articles in an actual shop or a virtual shop on a Web may be used.

[0103] When such a purchase history is used, the embodiment can be used in the following manner. For example, persons which have recently purchased baby articles such as diapers or powdered milk seem to have various worries, anxieties, or questions about baby care or parturition. Therefore, a community which such persons join may be created.

(Embodiment 2)

[0104] In a second embodiment, a method of creating a community when a new participant appears in the case where a community has been already constructed on the Internet will be described.

[0105] Namely, a method of creating a community to which a new user is added, by performing clustering based on the preference information 1001 received by the server 106 from a user who wishes to newly join a community, and information relating to a community that has been constructed on the basis of preference information of plural users who have already joined the community (hereinafter, such a community is often referred to as category) will be described.

[0106] Among components of the server shown in Fig. 16, those which are used in the embodiment will be described.

[0107] The reference numeral 1607 denotes a classification concept database which stores concept information that is a result of current clustering.

[0108] The reference numeral 1608 denotes a preference accumulation database which stores preference information relating to all members belonging to a community, such as that shown in Fig. 10.

[0109] The reference numeral 1609 denotes a classifying section which newly performs clustering with including the preference information 1001 that is the output of the preference information extracting section 1606 in Embodiment 1, with reference to the preference accumulation database 1608 and the classification concept database 1607.

[0110] The reference numeral 1610 denotes a classification information transmitting section which notifies a change to a user belonging to the category which is changed as a result of new classification performed by the classifying section 1609, with reference to the registrant information management database 1604.

[0111] Next, the classification concept database 1607 will be described. Fig. 21 shows the database in detail.

[0112] In the figure, the ovals shows nodes (corresponding to 2101) indicating branches of a category.

[0113] The rectangles show categories (corresponding to 2102), and indicate that dispersion of preference information of users belonging to each of the categories is smaller than a certain fixed value.

[0114] In the figure, it is shown that members belonging to "Class:3" 2103 which is one of the categories are "User1", "User7", "User13", "User25", "User28", "User30", "User39", and "User42".

[0115] Classes to which members belong are stored in the sequence starting from a higher-level node. When "User1" is taken as an example, it is stored that the user belongs to "Class:3" which is lower in level than "Node: 2" and "Node:5".

[0116] Next, the operation in the case where the classifying section 1609 receives new preference information as an input will be described.

[0117] The case where "COBWEB" which is a concept forming technique for automatically forming a concept from plural examples is used as the classifying section 1609 will be described. The detail of "COBWEB" is described in a literature, "Fisher, Conceptual clustering, Learning from Examples, and Inference, Proceeding of the Fourth International Workshop on Machine Learning, pp. 38-49, 1987."

[0118] In "COBWEB", a value which is called category utility (hereinafter, referred to as CU value) is used as an index of classification. The CU value is a value indicating the similarity of intracategory data and the dissimilarity of intercategory data. The operation of the classifying section 1609 advances with selecting a conceptual configuration in which the CU value is maximum.

[0119] The classifying section 1609 performs the following four operations on new preference information and the current clustering result (corresponding to Fig. 21).

[0120] The operation which is performed for judging an optimum category with respect to a hierarchy that is lower by one level than "Node:1" of Fig. 21 will be described.

1. Addition to current category

[0121] The CU value is calculated for the case where new preference information is added to each of existing categories "Node:2", "Node:3", and "Node:4" as an example shown in 2201 of Fig. 22A.

2. Creation of new category

[0122] The CU value is calculated for the case where a category is newly created in the same level as "Node: 2", "Node:3", and "Node:4" as shown in 2202 of Fig. 22B.

3. Integration of categories

[0123] The CU value is calculated for all the cases where two categories (Nodes 2 and 3 of Fig. 21) are integrated into a new category (New Node of Fig. 23A) as an example shown in 2301 of Fig. 23A.

4. Division of category

[0124] The CU value is calculated for all the cases where one category (Node 3 of Fig. 21) is divided into two categories (Classes 5 and 6 of Fig. 23B) as an example shown in 2302 of Fig. 23B.

[0125] The four operations are performed, and the classification method in which the largest CU value is obtained is employed. The same process is performed also on lower-level categories.

[0126] In response to an output of the classifying section 1609, the classification information transmitting section 1610 notifies new category information to the user who is newly added to the category, and the user belonging to the category which is changed as a result of classification performed by the classifying section 1609, with reference to an IP address or Mail address of the user data 1902 shown in Fig. 20 and in the registrant information management database 1604.

[0127] In the embodiment, the case where a user newly joins a community has been described. The embodiment is not restricted to this. For example, the embodiment may be modified as described below. When preference information of a user who has already joined a community is changed, the changed preference information is handled in the same manner as preference information of a new user in the embodiment, whereby the user whose preference is changed is enabled to newly join another community.

(Embodiment 3)

[0128] In a third embodiment, a procedure of causing a user belonging to a certain community to belong also to one or more other communities will be described.

[0129] Fig. 24 is a diagram illustrating the operation of the embodiment.

[0130] The reference numeral 2401 denotes a preference history database which stores histories of preferences of users.

[0131] The reference numeral 2402 denotes a preference history reflection data producing section which refers history information of the preference history database 2401, and which produces preference information wherein the history is reflected.

[0132] The objects of the preference history database 2401 and the preference history reflection data producing section 2402 will be described below.

[0133] Preference data which is stored in the preference accumulation database 1608 with respect a certain person can be understood to be a data which indicates the long-term tendency of interest of the person. By contrast, when changes of the preference data over the long term are stored into the preference history database 2401, it is possible to produce preference information which shows a tendency of interest over a short term.

[0134] When a tendency of interest is expressed by an attribute and its frequency (weight), it is possible to produce a long-term preference data indicating the frequency of stable occurrences for a constant time period (the data corresponds to the first preference information in the invention), and a short-term preference data which, for the constant time period, shows a degree of change that is larger than a degree of change of the frequency of occurrence of the long-term preference data (the data corresponds to the second preference information in the invention).

[0135] In preference information data stored in the preference accumulation database 1608, therefore,

communities which are clustered on the basis of the long-term preference data are different from those which are clustered on the basis of the short-term preference data.

[0136] As a result, a single user is allowed to belong to plural communities, and also to join any communities relating to a long-term interest of the user, and a short-term interest which the user will have, such as "recent fashionable topic".

[0137] Fig. 25 shows a data indicating the history stored in the preference history database 2401.

[0138] As shown in the figure, the attribute value for each of the attributes in which the attribute value is numerized by the weight indicates a change of the attribute of each person which is stored in the preference accumulation database 1608.

[0139] In the preference history reflection data producing section 2402, a data in which the recent interest of the user such as shown in Fig. 26 is reflected is produced from the data of the preference history database 2501 shown in Fig. 25. In the produced data, the attribute value of an attribute in which the change value is plus is set to be high, and that of an attribute in which the change value is minus is set to be low.

[0140] As a result, it is possible to produce a preference information data in which a feature of recent preference is reflected.

[0141] The classifying section 1609 receives as inputs an output data 2601 of the preference history reflection data producing section 2402, and outputs of the classification concept database 1607 and the preference accumulation database 1608, and performs the operation described in the second embodiment to determine a category to which the data of Fig. 26 belongs. As a result, the user can belong to two communities, i. e., the community which is clustered on the basis of the long-term preference data stored in the preference accumulation database 1608, and the community which is clustered on the basis of the short-term preference data that is produced by the preference history database 2401 and the preference history reflection data producing section 2402.

[0142] In the same manner as the second embodiment, the classification information transmitting section 1610 notifies the new category to the user.

[0143] The preference data which is used for clustering the user to plural communities is not restricted to a data which is based on the history of preference. An attribute may be selected from preference information in accordance with a certain selection criterion to newly produce preference information.

[0144] A preference data indicating the short-term interest of the user such as that shown in the embodiment may be produced by the server which manages the community, or by an information terminal which the user usually uses.

(Embodiment 4)

[0145] In a fourth embodiment, an operation of reorganizing a community (reorganizing a category) when the community is in an inactive state because, for example, information exchanges are not vigorously performed will be described.

[0146] Fig. 27 is a diagram illustrating the operation of the embodiment.

[0147] In the figure, 2702 denotes a posted-information storage database which stores the sender, date, and contents of posted information in a community.

[0148] The reference numeral 2701 denotes an activity judging section which refers data stored in the posted-information storage database 2702, and which judges the degree of activity of a community.

[0149] The activity judging section 2701 extracts a community in which the degree of activity does not satisfy a degree-of-activity judgement criterion, from the posted-information storage database 2702.

[0150] The degree-of-activity judgement criterion may include "number of postings per day", "number of regular posters", and "number of members of the community" which are shown in Fig. 28.

[0151] The classifying section 1609 receives information of an inactive community (category) from the activity judging section 2701, and integrates the community with an active community, or integrates or reorganizes inactive communities.

[0152] In the embodiment, the method of automatically detecting and reorganizing an inactive community has been described. When a degree-of-activity judgement criterion such as shown in Fig. 28 is used, communities can be presented to a user in the form in which each of the communities can be easily identified in accordance with the degree of activity.

[0153] In Fig. 49, for example, symbols or characters shown in a portal site for communities and respectively indicating the communities may be displayed in different sizes in accordance with the degree of activity of the corresponding community. In this case, information indicating, for example, a community in which discussions are conducted most vigorously can be visually transmitted. Alternatively, a method may be employed in which symbols, characters, and wallpaper are displayed in different colors, instead of changing the sizes of the symbols or characters.

[0154] In a portal site such as shown in Fig. 49, symbols or characters respectively indicating communities may be displayed with correlating the positional relationships between them in accordance with similarity of the communities.

(Embodiment 5)

[0155] In a fifth embodiment, a case where an enterprise provides a service with respect to contents of information which is exchanged in a certain community

will be described.

[0156] First, a configuration which is used in the embodiment is shown in Fig. 29.

[0157] In the figure, 2901 denotes a posted-information monitoring section which monitors and extracts information that is posted by a user in a community.

[0158] The reference numeral 2902 denotes a provided-information storage database in which information that the service provider 107 intends to provide the user, such as information of products or service is registered together with a keyword which is paired with the information.

[0159] The reference numeral 2903 denotes a keyword matching section which compares a keyword included in the information extracted by the posted-information monitoring section 2901 with the keyword registered in the provided-information storage database 2902, to judge whether the keywords coincide with each other or not.

[0160] The reference numeral 2904 denotes a provided-information displaying section which searches the provided-information storage database 2902 for information paired with a keyword that is judged to attain coincidence by the keyword matching section 2903, and which displays the paired information to the user who posted the keyword, or users joining the community and including the user who posted the keyword.

[0161] Next, the procedure in the embodiment will be described.

[0162] Fig. 30 shows a data which is posted to the posted-information storage database 2702, and Fig. 31 shows an example of information registered in the provided-information storage database 2902. In this example, a URL which is to be referred by a user is described as information which the service provider wishes to provide with respect to a keyword posted by a user.

[0163] A case where information indicated by 3001 is posted to the posted-information storage database 2702 is assumed. The posted-information monitoring section 2901 monitors the posted-information storage database 2702, and extracts the information 3001. The keyword matching section 2903 checks whether information extracted by the posted-information monitoring section 2901 includes a keyword stored in the provided-information storage database 2902 or not. In the embodiment, keyword "digital camera" attains coincidence. Therefore, the provided-information displaying section 2904 displays a URL, http://www.marumarudenki.co.jp/digi-came to the user who posted the keyword, or users joining the community and including the user who posted the keyword. When the user accesses the displayed URL, the user can obtain information relating to "digital camera".

[0164] In the embodiment, the case where URL information such as a product or a service is handled as information which the service provider provides to a user has been described. Alternatively, information to be provided may not be a URL, but direct information such as explanation or price of a product or a service, or explanation information relating to the keyword posted by a user, as shown in 3201 of Fig. 32.

(Embodiment 6)

[0165] In a sixth embodiment, a case where an advertiser displays to a community an advertisement relating to contents information of which is exchanged in the community will be described.

[0166] First, a configuration which is used in the embodiment is shown in Fig. 33.

[0167] In the figure, the functions of the posted-information monitoring section 2901 and the posted-information storage database 2702 are identical with those of the corresponding components of Embodiment 5.

[0168] The reference numeral 3301 denotes a keyword storage database which stores a keyword included in information posted to a community, together with the number of postings of the keyword.

[0169] The reference numeral 3302 denotes a keyword adding section which extracts a keyword from information extracted by the posted-information monitoring section 2901, and, if the keyword is stored in the keyword storage database 3301, increments the number of postings, and, if not stored, newly stores the keyword together with the number of postings.

[0170] The reference numeral 3303 denotes an advertiser database which stores an advertiser who wishes to display an advertisement to a community, together with conditions for displaying the advertisement and the contents of the advertisement. The conditions for displaying are set to that the number of postings of a keyword to the community reaches or exceeds a fixed number.

[0171] The reference numeral 3304 denotes an advertisement judging section which searches for a keyword stored in the keyword storage database 3301, and which judges whether the number of postings of the keyword satisfies the conditions of the advertiser in the advertiser database 3303 or not.

[0172] The reference numeral 3305 denotes an advertisement displaying section which displays to a community an advertisement of an advertiser who is judged to satisfy the conditions by the advertisement display judging section 3304.

[0173] Next, the procedure in the embodiment will be described.

[0174] In Fig. 34, 3401 denotes information which is stored in the keyword storage database 3301, and in which a keyword and the number of postings of the keyword are stored with being paired with each other, and 3402 is a view showing a result of addition of a keyword and the number of postings by the keyword adding section 3302. In Fig. 35, 3501 denotes information which is stored in the advertiser database 3303, and in which the name of an enterprise, contents of an advertisement of the enterprise, and a keyword and the number of post-

ings of the keyword that are conditions for displaying the advertisement of the enterprise are stored with being paired with each other.

[0175] In the same manner as Embodiment 5, a case where information indicated by 3001 in Fig. 30 is posted to the posted-information storage database 2702 is assumed. The posted-information monitoring section 2901 monitors the posted-information storage database 2702, and extracts the information 3001.

[0176] In response to an output of the posted-information monitoring section 2901, the keyword adding section 3302 extracts "JPEG", "image", and "digital camera" as keywords, and increments the number of postings for each of data indicated by 3401 of Fig. 34, thereby producing a data indicated by 3402.

[0177] The advertisement display judging section 3304 determines an enterprise among the enterprises stored in the advertiser database 3303 in which the data of the keyword storage database 3301 satisfies the conditions of displaying advertisement. In the embodiment, it is judged that the conditions of "A company", "JPEG: 5 times", and "Digital camera: 10 times" in the data of 3501 are satisfied.

[0178] In response to an output of the advertisement display judging section 3304, the advertisement displaying section 3305 displays the advertisement of "A company" to the community.

[0179] In the embodiment, the number of postings of a keyword is set as the conditions of displaying an advertisement. Alternatively, an occurrence rate of a specific keyword with respect to all keywords may be used, or an advertisement may be displayed at the request of an enterprise which analyses information posted to a community.

(Embodiment 7)

[0180] In a seventh embodiment, a method will be described in which, with respect a keyword and contents included in information posted to a community, a profile (preference information, personal information, etc.) of a user belonging to the community is referred, and explanation information is presented to a user who seems not to understand the contents and meaning.

[0181] First, a configuration which is used in the embodiment is shown in Fig. 36.

[0182] In the figure, 3602 denotes a concept storage database which stores a conceptual structure of terms such as a word or a compound.

[0183] The reference numeral 3603 denotes a profile managing section which stores a personal profile such as preference information and personal information of a user belonging to a community.

[0184] The reference numeral 3601 denotes a display information determining section which extracts keywords such as a word and a compound from information posted to a community that is monitored by the posted-information monitoring section 2901, and which, with reference to the concept storage database 3602 and the profile managing section 3603, identifies a set of a user and a keyword in which the contents of the keyword is required to be explained.

[0185] The reference numeral 3604 denotes an explanation information storage database which stores a keyword such as a word or a compound with being paired with its explanation contents.

[0186] Fig. 38 shows an example of the concept storage database 3602. In this example, a concept is expressed by a tree structure, and configured by categories (terms each enclosed by a rectangle in the figure) and attributes (terms included in the lowest hierarchy in the figure). Categories such as "Hobby", "Lesson", and "Practical item" are in the same hierarchy. Lower-level categories of "Hobby" include "Sport", "Music", and the like, and categories belonging to "Sport" are "Olympics", "Baseball", etc. It is considered that both "Sport" and "Music" categories are narrower concepts of "Hobby" category, and therefore closely related to each other, but "IT related product" category is a narrower concept of "Practical item" category, and hence loosely related to "Sport" and "Music" categories which are narrower concepts of "Hobby" category.

[0187] Next, the procedure will be described by way of a specific example.

[0188] The posted-information monitoring section 2901 detects that information shown in Fig. 37 is posted to the community. With reference to the profile of member users of the community stored in the profile managing section 3603, and the concept storage database 3602, the display information determining section 3601 judges which user must be provided with detailed explanation information relating to one of the keywords.

[0189] Hereinafter, a method of judging whether it is required to present explanation information of a keyword to a user having a certain profile or not will be described.

[0190] It is assumed that a certain user presently has the profile shown in Fig. 10. From the attributes of the profile, it is considered that the user is interested in "Sport" category in the conceptual structure of Fig. 38, and has some knowledge of the category.

[0191] When words and compounds are extracted from the posted information of Fig. 37, for example, the extracted words and compounds include word "digital camera". Referring to the conceptual structure of Fig. 38, it is seen that "digital camera" belongs to "IT related product" category. At this time, the display information determining section 3601 judges that the user lacks knowledge of the categories belonging to "IT related product" category, because "IT related product" category to which "digital camera" belongs is loosely related to "Sport" category in which the user is interested. With respect to the user having the profile shown in Fig. 10, when information shown in Fig. 37 is posted, or when the user reads the information, information 3901 shown in Fig. 39A is presented to the user as explanation in-

formation of "digital camera". The information 3901 of Fig. 39A is stored in the explanation information storage database 3604.

[0192] The judgement is performed(on all the users belonging to the community. The information 3901 of Fig. 39A can be presented to a user who, judging from the profile, seems to lack knowledge of the posted keyword.

[0193] Explanation information such as shown in Fig. 39 may be displayed in a browser(Fig.39B) of a community which the user is reading, or in another window which is separately formed.

(Embodiment 8)

[0194] In an eighth embodiment, a method of monitoring posted information of communities, and integrating communities in which views on similar concepts are exchanged, into one community will be described.

[0195] Fig. 40 is a view showing the configuration of the embodiment.

[0196] In the figure, 4001 to 4003 denote posted-information storage databases which store topics posted to community 1, community 2, and community N, respectively.

[0197] The reference numeral 4004 denotes a posted-information extracting section which refers the posted-information storage databases 4001 to 4003, and which extracts information posted to the communities.

[0198] The reference numeral 4005 denotes a conceptual structure database showing the conceptual structure of terms.

[0199] The reference numeral 4007 denotes a community similarity storing section which stores a similarity of information posted among the communities.

[0200] The reference numeral 4006 denotes a community similarity adding section which refers information posted to the communities obtained from the posted-information extracting section 4004, and also to the conceptual structure database 4005, and which adds the similarity among the communities stored in the community similarity storing section 4007.

[0201] The reference numeral 4008 denotes a similar-community judging section which determines similar communities on the basis of the similarity in the community similarity storing section 4007.

[0202] Fig. 41 shows an example of the conceptual structure stored in the conceptual structure database 4005.

[0203] As shown in the figure, the conceptual structure is expressed by a hierarchical structure of terms. Below "Music" concept, there are concepts of "European music", "Japanese music", "Female vocal", and "Jazz". In this example, it should be understood that each term enclosed by a rectangle indicates a community, for example, "Musician group B", "Musician group C", and the like are keywords featuring "Japanese music community".

[0204] Fig. 42 shows an example of information stored in the community similarity storing section 4007.

[0205] The values in the figure indicate that, for example, keywords featuring "Female vocal community" shown in the conceptual structure of Fig. 41 occur 18 times in information which have been posted to "Japanese music community". Namely, in the past, keywords relating to "Female vocal community" were posted 18 times to "Japanese music community". As the values are larger, two communities are related more closely and the similarity is higher.

[0206] Next, the flow of the procedure in the embodiment will be described. It is assumed that the conceptual structure of Fig. 41 is employed as the conceptual structure database 4005, and the information of Fig. 42 is stored in the community similarity storing section 4007.

[0207] When information shown in Fig. 43 is posted to "Japanese music community", the posted-information extracting section 4004 extracts the information.

[0208] Referring to the community similarity adding section 4006 of Fig. 41, the community similarity adding section 4006 performs an addition of a similarity in each community. The information shown in Fig. 43 and posted to "Japanese music community" contains one keyword "Female vocal A", and one keyword "Female vocal B" which are related to "Female vocal community", and hence the similarity of "Japanese music community" with respect to "Female vocal community" is incremented by "2", so that the data of the community similarity storing section 4007 of Fig. 42 is changed from "18" to "20" as shown in Fig. 44.

[0209] The similar-community judging section 4008 monitors the community similarity storing section 4007, and judges whether there is a community which satisfies a criterion for community integration or not. For example, it may be set as the judgement criterion that "the similarity between communities stored in the community similarity storing section 4007 is "20" or more".

[0210] In Fig. 44, the similarity between "Japanese music community" and "Female vocal community" satisfies the above-mentioned criterion. Therefore, the similar-community judging section 4008 determines that "Japanese music community" and "Female vocal community" are to be integrated with each other.

[0211] Preferably, integration of communities is informed to members belonging to the communities.

(Embodiment 9)

[0212] In a ninth embodiment, a method of monitoring information posted to a certain community, and independently creating a new community from an existing community in accordance with the contents of the posted information.

[0213] Fig. 45 is a view showing the configuration of the embodiment.

[0214] In the figure, 4501 denotes a posted-information storage database.

[0215] The reference numeral 4503 denotes a keyword storing section which, for each member of a community, stores a keyword included in information posted to the community, and the number of postings of the keyword.

[0216] The reference numeral 4502 denotes a keyword adding section which extracts a keyword from information posted to the community and extracted by the posted-information extracting section 4004, and which causes the keyword storing section 4503 to increment the number of postings of the keyword.

[0217] The reference numeral 4504 denotes an independent-community judging section which monitors the keyword storing section 4503, and which judges whether, in accordance with the number of postings of the keyword, an independent community is to be newly created or not.

[0218] Fig. 46 shows a specific example of the keyword storing section 4503.

[0219] As shown in the figure, in the keyword storing section 4503, management is conducted in the unit of each of members belonging to "Music community" in the conceptual structure database 4005 of Fig. 41, and the numbers of postings of keywords (shown in Fig. 41) featuring "European music", "Japanese music", and "Female vocal" which are narrower concepts of "Music community" are stored for each of the members. For example, it is shown that a member of "Music community", "Jiro" has posted 4 times a sentence including a keyword such as "Musician group A", "Artist A", or the like belonging to "European music" concept.

[0220] Next, the flow of the procedure in the embodiment will be described.

[0221] It is assumed that "Music community" currently exists and members belonging to the community are shown in the keyword storing section 4503 of Fig. 46.

[0222] When sentences shown in Fig. 47 are posted to the posted-information storage database 4501, the posted-information extracting section 4004 extracts the information, and then transmits it to the keyword adding section 4502.

[0223] Referring to the conceptual structure database 4005 of Fig. 41, the keyword adding section 4502 judges whether or not each of the members posts the keywords of the concepts of "European music", "Japanese music", "Female vocal", and "Jazz" which are included in "Music community".

[0224] In this example, keywords such as "Artist B" of member "Midori", "Artist D" of "June", and "Musician group B" of "Sam" are judged as keywords corresponding to the concepts. Each of the numbers of keywords in the keyword storing section 4503 of Fig. 46 and for these members is incremented by one, so as to become as shown in Fig. 48.

[0225] When the numbers of keywords in the keyword storing section 4503 are incremented, the independent-community judging section 4504 refers the keyword storing section 4503, and judges whether there is a community which is to be newly separated from "Music community" that is an existing community or not. For example, the judgment criterion may be set as follows.

[0226] "If the number of members who belong to community A, and who have posted a predetermined number or more times keywords relating to narrower concept B of concept A expressing community A is equal to or larger than a given number, new community B related to concept B is configured by the members."

[0227] In the criterion, for example, "predetermined number of times" may be set to 20 times, and "given number of members" to 4 members. In this case, in the keyword storing section 4503 which is updated as shown in Fig. 48, "Japanese music" satisfies the criterion. Therefore, the independent-community judging section 4504 determines that a new community, "Japanese music community" configured by "Sam", "Midori", "Maki", and "June" who are members satisfying the above-mentioned criterion is to be created.

[0228] The members may be set so as to belong to only new "Japanese music community", or alternatively to the two communities of "Japanese music community" and "Music community".

[0229] In the embodiment, as in the example of Fig. 41, "European music" and "Japanese music" with respect to "Music", i.e., narrower concepts of an existing community are used as candidates for a community which is to become independent. Not only concepts in the relationship of "parent and child", but also different concepts may be used as candidates for an independent community.

[0230] In the above embodiments, the case where information terminals (corresponding to the terminal apparatus in the invention) collect and generate preference information of the users, and the like has been mainly described. The invention is not restricted to this case. For example, a configuration may be employed in which the collection and generation are performed by a server (the community server 106 of Fig. 1) connected to the Internet.

[0231] In the above embodiments, the case where the group forming apparatus of the invention is realized by the single community server 106 has been mainly described. The apparatus is not restricted to this. For example, the apparatus may be configured by a combination of plural servers or data processing apparatuses.

[0232] The invention provides a program which causes a computer to realize functions of a whole or a part of the means (or the apparatuses, the elements, the circuits, the sections, and the like) of the group forming system and the group forming apparatus of the invention, and which cooperates with the computer.

[0233] Moreover, the invention provides a program which causes a computer to perform operations of a whole or a part of the steps (or the processes, the operations, the functions, and the like) of the group forming method of the invention, and which cooperates with the computer.

[0234] Moreover, the invention provides a medium which carries a program for causing a computer to realize functions of a whole or a part of the means of the group forming system and the group forming apparatus of the invention, the program being computer-readable and, when read, cooperating with the computer to realize the functions.

[0235] Moreover, the invention provides a medium which carries a program for causing a computer to perform operations of a whole or a part of the steps of the group forming method of the invention, the program being computer-readable and, when read, cooperating with the computer to perform the operations.

[0236] The part of the means (or the apparatuses, the elements, the circuits, the sections, and the like) in the invention, or the part of the steps (or the processes, the operations, the functions, and the like) in the invention implies several of the plural means or steps, or a part of functions or operations in one means or step.

[0237] Also a recording medium on which the program of the invention is recorded, and which is readable by a computer is included with the scope of the invention.

[0238] One of forms of using the program of the invention may be a mode in which the program is transmitted through a transmission medium to be read by a computer, and cooperates with the computer.

[0239] The recording medium includes a ROM and the like, and the transmission medium includes transmission media such as the Internet, and light, a radio wave, a sound wave, etc.

[0240] In the invention, the computer is not restricted to pure hardware such as a CPU, and may include firmware, an OS, and peripheral equipment.

[0241] As described above, the configuration of the invention may be realized by means of software or hardware.

[0242] As apparent from the above description, according to the invention, a user who wishes to join a community can automatically find an adequate community on the basis of preference information of the user, without taking the trouble of searching a community suitable to the user by using a search engine or the like. Even when a community is not suitable for a user, it is possible to automatically find another community. In a case such as that a community is not activated, community reorganization can be conducted automatically or without requiring manpower.

[0243] On the other hand, an enterprise which intends to provide a community with a service or a product can provide advertisement information to a user at an appropriate timing, or adequately display a descriptive text or image to a user who is difficult to understand information posted to community, without consuming labor of always monitoring views and information which are exchanged in the community.

[0244] In the embodiments, the preference information may include information on a purchase of an article.

[0245] As apparent from the above description, the invention has an advantage that formation, operation, and activation of a community on the Internet or the like can be performed more easily than the conventional art.

Claims

1. A group forming system comprising:

   a terminal apparatus which is connected to a network;
   accumulating means of obtaining information including at least one of personal information and preference information of a user of said terminal apparatus, and of accumulating the obtained information;
   classifying means of classifying a whole or a part of the information accumulated in said accumulating means, into a single or plural groups on the basis of a predetermined classification criterion; and
   determining and notifying means of determining the group to which the user is to belong, from the classified groups on the basis of predetermined relationships between the user and the accumulated information, and of notifying the user of a result of the determination.

2. A group forming apparatus comprising:

   accumulating means of obtaining information including at least one of personal information and preference information of a user of a terminal apparatus which is connected to a network, and of accumulating the obtained information;
   classifying means of classifying a whole or a part of the information accumulated in said accumulating means, into a single or plural groups on the basis of a predetermined classification criterion; and
   determining and notifying means of determining the group to which the user is to belong, from the classified groups on the basis of predetermined relationships between the user and the accumulated information, and of notifying the user of a result of the determination.

3. A group forming apparatus according to claim 2, wherein said apparatus further comprises activity judging means of judging a degree of activity of the group on the basis of a history and/or a frequency of postings of information to the group from the user belonging to the group, and

   from a result of the judgement, it is determined whether a whole or a part of the classification is reorganized or not, in accordance with the degree of activity of the group.

4. A group forming apparatus according to claim 2, wherein said apparatus further comprises:

keyword judging means of judging whether or not a preregistered keyword is included in information which is posted to the group from the user belonging to the group; and
provided information providing means of, if a result of the judgement shows that the keyword is included, providing provided information which is previously stored with being paired with the keyword, to the group or the user posting the information to the group, on the basis of a predetermined criterion.

5. A group forming apparatus according to claim 2, wherein said apparatus further comprises monitoring means of monitoring plural sets of information which are posted to the group from the user belonging to the group, and
in accordance with similarity of the plural sets of monitored information, the group is divided, or plural groups are integrated with each other.

6. A group forming apparatus according to claim 2, wherein said apparatus further comprises:

advertisement content storing means of storing an advertisement content for providing an advertisement to the group, and conditions for the provision in correspondence with one another;
history/frequency storing means of storing a history and/or a frequency of information posted to the group from the user belonging to the group; and
advertisement content providing means of searching contents stored in said history/frequency storing means for contents satisfying the conditions, and of providing the corresponding advertisement content to a user belonging to the group, or the group.

7. A group forming method comprising:

an accumulating step of obtaining information including at least one of personal information and preference information of a user of a terminal apparatus, and of accumulating the obtained information;
a classifying step of classifying a whole or a part of the accumulated information into a single or plural groups on the basis of a predetermined classification criterion; and
a determining and notifying step of determining a group to which the user is to belong, from the classified groups on the basis of predetermined relationships between the user and the accumulated information, and of notifying the user of a result of the determination.

8. A group forming method according to claim 7, wherein, in said accumulating step, also information related to the classified groups is accumulated, and
in said classifying step, the classification is performed in consideration of also the accumulated information related to the groups.

9. A group forming method comprising:

a storing step of storing personal information or preference information of a user belonging to a group which is formed on Internet, with classifying the information into first information which shows a stable tendency for a predetermined time period, and second information which, for the predetermined time period, shows a degree of change in tendency that is larger than a degree of change in tendency of the first information;
a classification result obtaining step of, on the basis of a first classification criterion, classifying a whole or a part of information including the first information in the stored information, into a single or plural groups to obtain a first classification result, and of, on the basis of a second classification criterion, classifying a whole or a part of information including the second information, into a single or plural groups to obtain a second classification result; and
a determining and notifying step of determining the group by using the first classification result, of determining the group by using the second classification result, and of notifying the user of results of the determinations.

10. A group forming method comprising:

an activity judging step of judging a degree of activity of a group which is formed on Internet, on the basis of a history and/or a frequency of postings of information to the group from a user belonging to the group;
a determining step of, from a result of the judgement, determining whether a whole or a part of single or plural groups is reorganized or not, in accordance with the degree of activity of the group; and
a reorganizing step of reorganizing the groups on the basis of a result of the determination.

11. A group forming method comprising:

a judging step of judging whether or not a preregistered keyword is included in information which is posted to a group that is formed on Internet; and

a providing step of, if a result of the judgement shows that the keyword is included, providing prbvided information which is previously stored with being paired with the keyword, to the group or a user posting the information to the group, on the basis of a predetermined criterion.

12. A group forming method according to claim 11, wherein the provision of the provided information on the basis of the predetermined criterion includes the steps of: on the basis of at least one of personal information and preference information of a user belonging to the group, judging whether the user has known the keyword or not; and, if it is judged that the user has not yet known the keyword, providing the provided information.

13. A group forming method comprising:

a monitoring step of monitoring plural sets of information posted to a group which is formed on Internet; and
a step of, in accordance with similarity of the plural sets of information, automatically dividing a mass, or integrating plural masses together.

14. A group forming method comprising the steps of:

previously storing an enterprise which wishes to display an advertisement to a mass, an advertisement content which the enterprise wishes to display, and conditions for displaying the advertisement with being paired with each other;
storing a history of information posted to a group which is formed on Internet; and
if the history of posted information satisfies the conditions for displaying the advertisement, providing the advertisement content to the group.

15. A group forming method according to claim 14, wherein the history of posted information is stored in the form of a pair of a keyword and the number of postings of the keyword.

16. A group forming method according to claim 14, wherein the condition is a keyword and a lower limit of the number of postings of the keyword to the group,

the history of posted information is stored in the form of a pair of a keyword and the number of postings of the keyword, and

satisfaction of the condition is that a keyword which is the history of posted information and the number of postings of the keyword satisfy the condition.

17. A program for causing a computer to function as a whole or a part of said accumulating means, said classifying means, and said determining and notifying means of said group forming apparatus according to claim 2.

18. A program for causing a computer to perform a whole or a part of said steps of said group forming method according to any one of claims 7 to 16.

19. A medium which carries a program for causing a computer to function as a whole or a part of said accumulating means, said classifying means, and said determining and notifying means of said group forming apparatus according to claim 2, said medium being processable by a computer.

20. A medium which carries a program for causing a computer to perform a whole or a part of said steps of said group forming method according to any one of claims 7 to 16, said medium being processable by a computer.

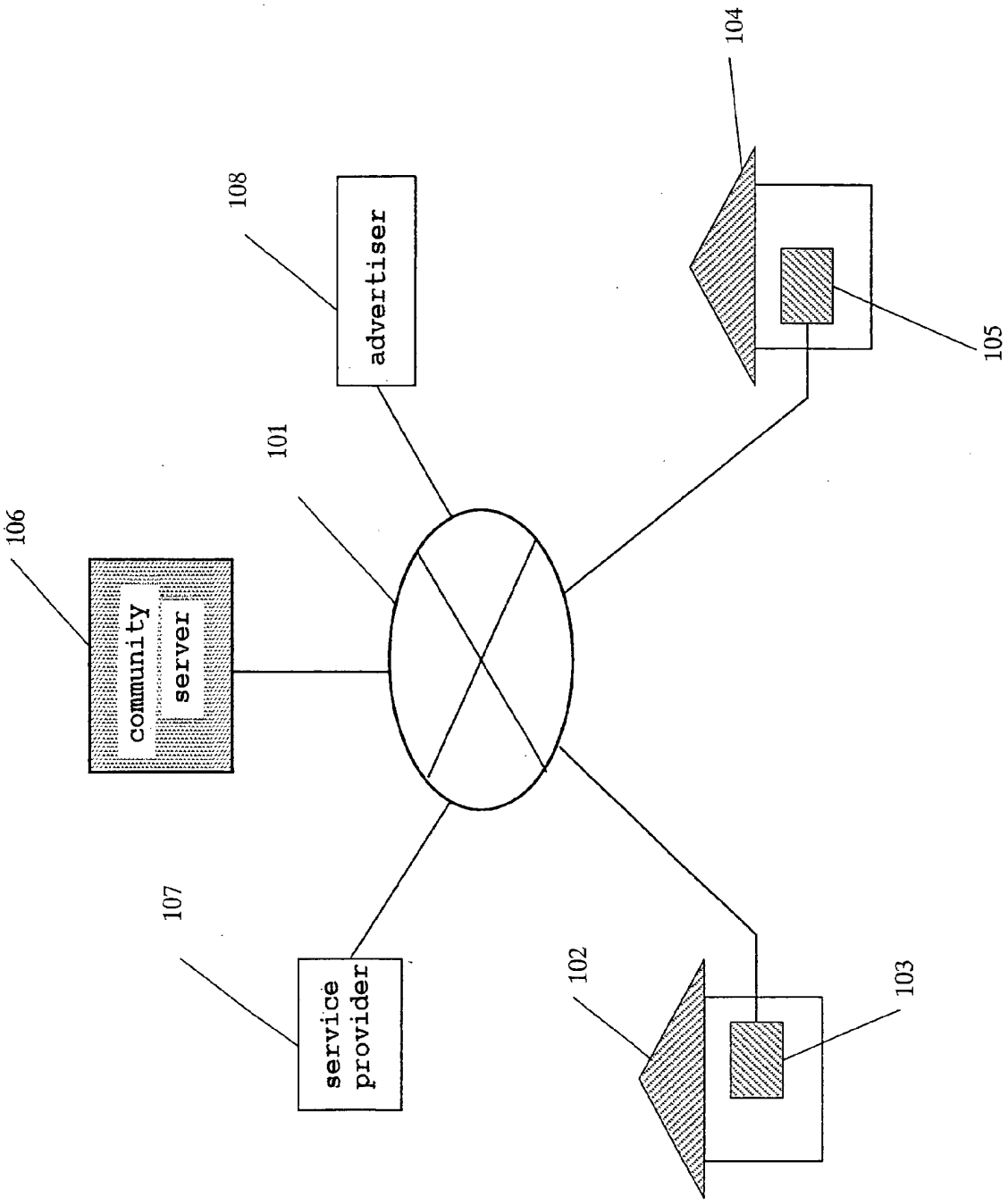

104
108
advertiser
105
101
106
community
server
107
service
provider
102
103

Fig. 1

Fig. 2

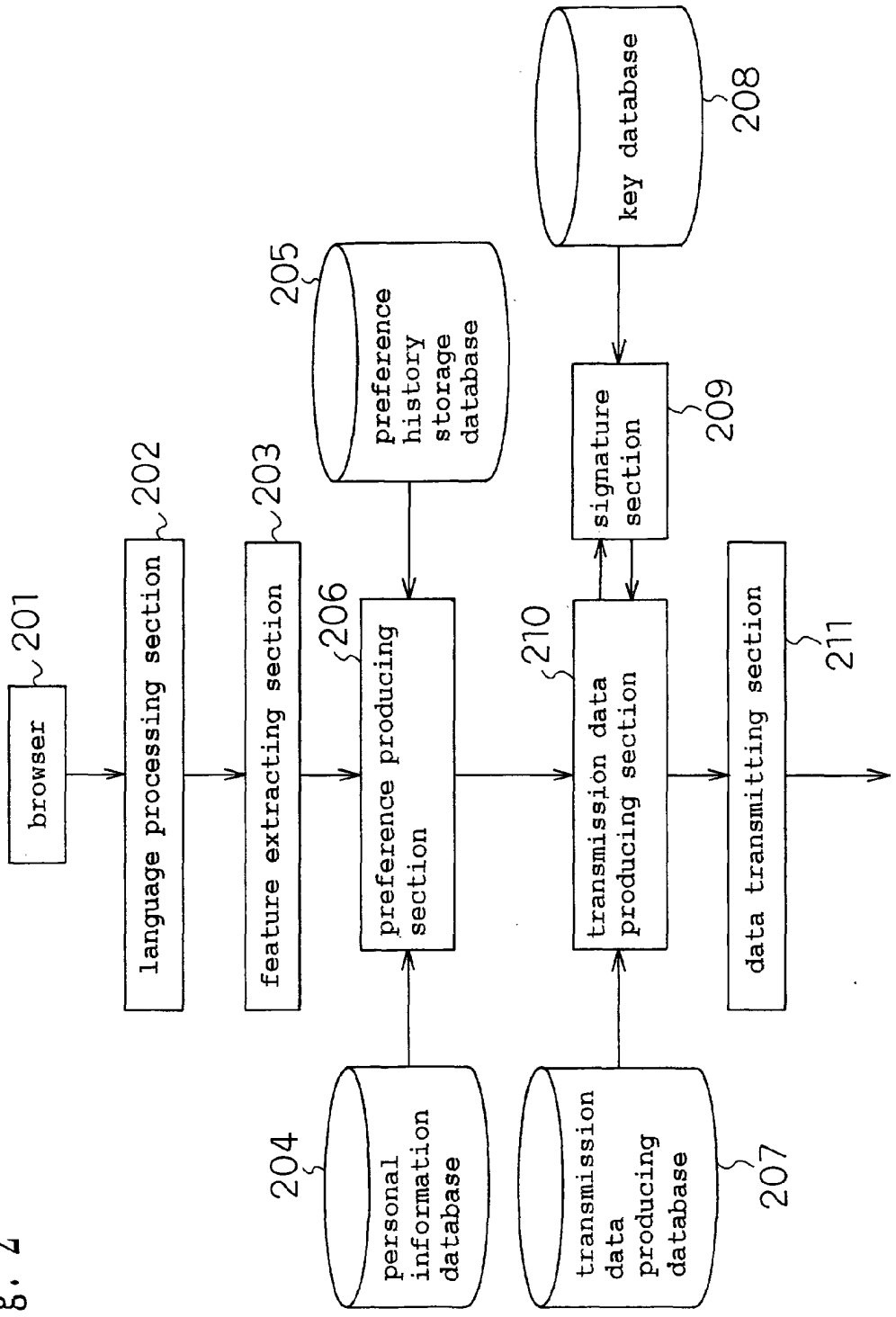
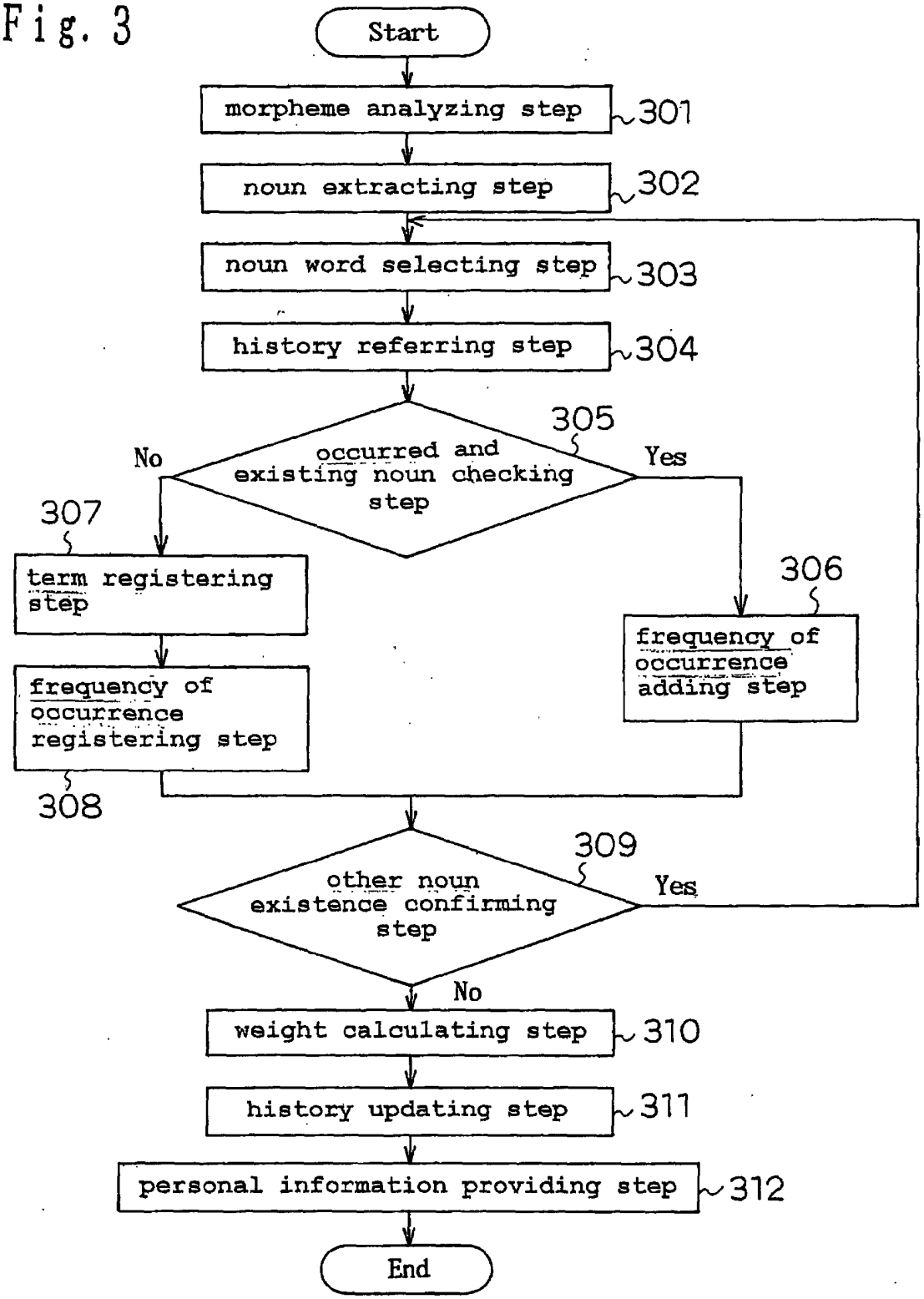

browser
201
language processing section
202
feature extracting section
203
preference producing section
206
personal information database
204
preference history storage database
205
key database
208
signature section
209
transmission data producing section
210
transmission data producing database
207
data transmitting section
211

Fig. 3


Start
morpheme analyzing step
301
noun extracting step
302
noun word selecting step
303
history referring step
304
305
occurred and existing noun checking step
No
Yes
307
term registering step
306
frequency of occurrence adding step
frequency of occurrence registering step
308
309
other noun existence confirming step
Yes
No
weight calculating step
310
history updating step
311
personal information providing step
312
End

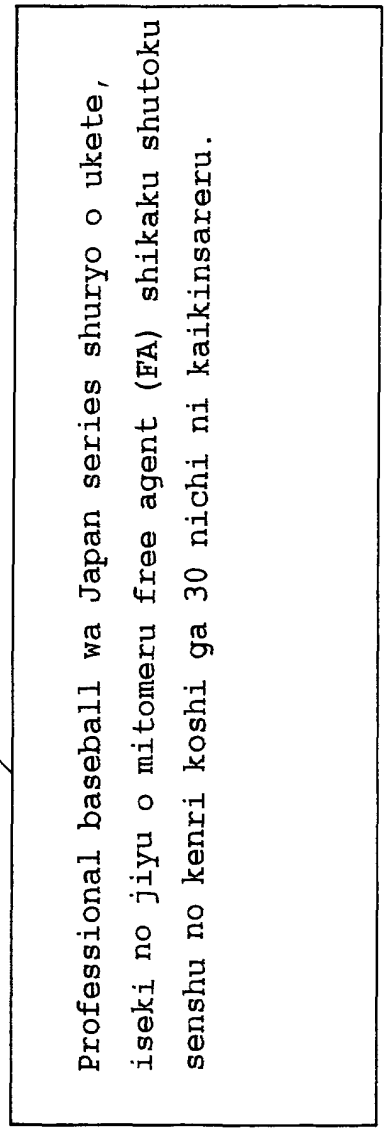

401
Professional baseball wa Japan series shuryo o ukete,
iseki no jiyu o mitomeru free agent (FA) shikaku shutoku
senshu no kenri koshi ga 30 nichi ni kaikinsareru.

Fig. 4

Fig. 5

501

Term	Part of speech
professional baseball	common noun
wa	adverbial particle
Japan	proper noun
series	common noun
shuryo	S-series irregular conjugation noun
o	case particle
ukete	verb
iseki	S-series irregular conjugation noun
no	noun connective particle
jiyu	adjective
o	case particle
mitomeru	verb
free agent	common noun

EP 1 209 599 A2

601

Noun	Frequency of occurrence
professional baseball	1
Japan	1
series	1
free agent	1

Fig. 6

Fig. 7

701

Attribute	Attribute value (weight)	Frequency of occurrence
Tigers	0.21	20
Soccer	0.11	10
Professional baseball	0.11	10
Japan	0.26	25
Olympics	0.05	5
Guitar	0.16	15
Internet	0.21	20
Total number of occurrences		95

Fig. 8

801

Attribute	Attribute value (weight)	Frequency of occurrence
Tigers	0.20	20
Soccer	0.10	10
Professional baseball	0.10	11
Japan	0.26	26
Olympics	0.05	5
Guitar	0.15	15
Internet	0.20	20
series	0.01	1
free agent	0.01	1
Total number of occurrences		99

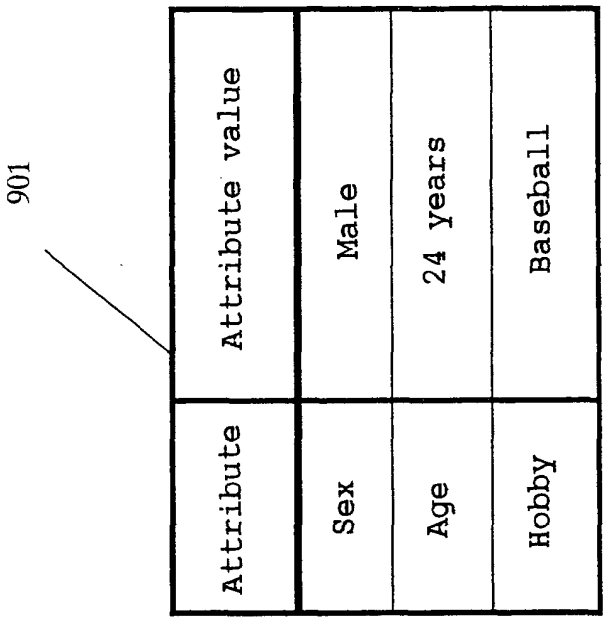

901
Attribute
Attribute value
Sex
Male
Age
24 years
Hobby
Baseball

Fig. 9

Fig. 10

1001

Attribute	Attribute value
Sex	Male
Age	24
Hobby	Baseball
Tigers	0.20
Soccer	0.10
Professional baseball	0.10
Japan	0.26
Olympics	0.05
Guitar	0.15
Internet	0.20
series	0.01
free agent	0.01

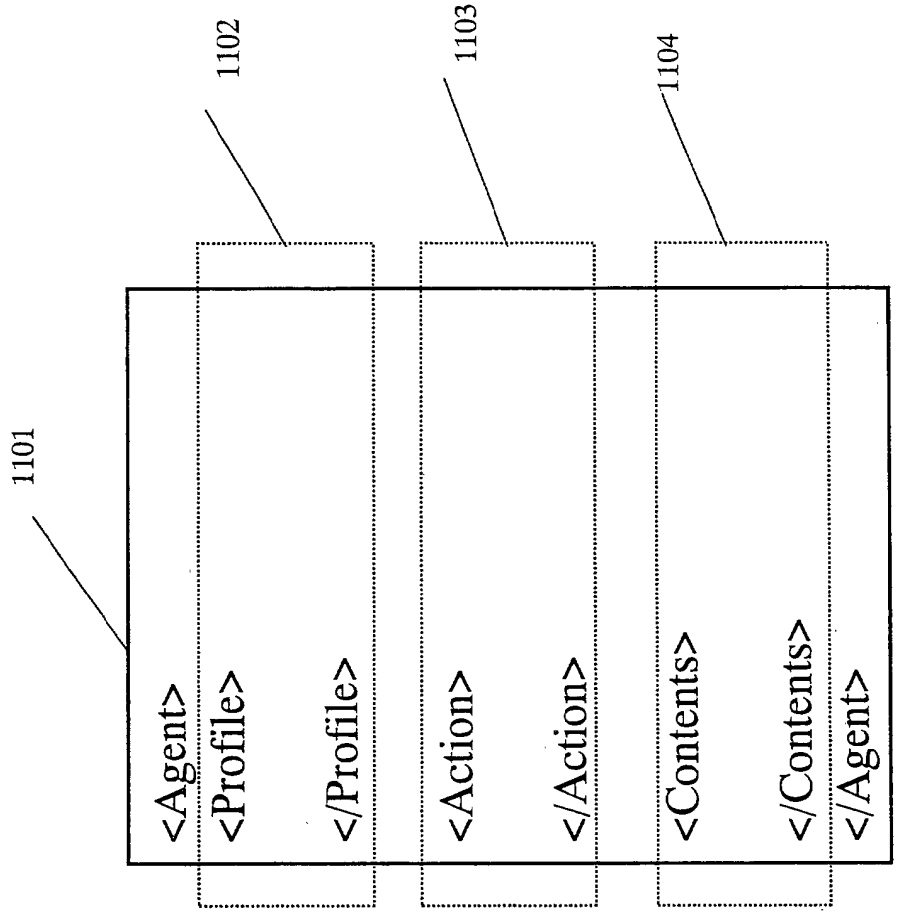

1101
1102
1103
1104
<Agent>
<Profile>
</Profile>
<Action>
</Action>
<Contents>
</Contents>
</Agent>

Fig. 11

Fig. 12

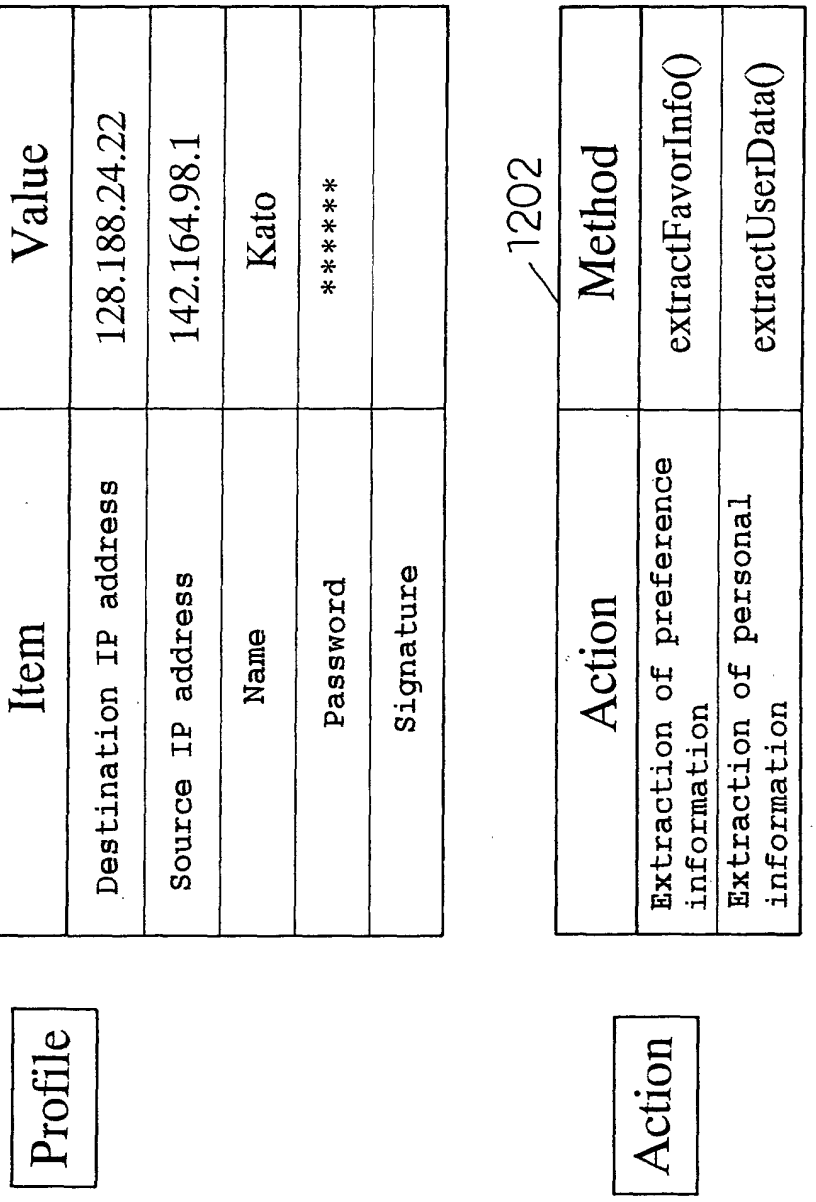

Profile
1201
Item
Value
Destination IP address
128.188.24.22
Source IP address
142.164.98.1
Name
Kato
Password
******
Signature
Action
1202
Action
Method
Extraction of preference information
extractFavorInfo()
Extraction of personal information
extractUserData()

Fig. 13

1301

```
<Agent>
<Profile>
      <param atrr="ToIP" value="128.188.24.22">
      <param atrr="FromIP" value="142.164.98.1">
      <param atrr="Name" value="Kato">
      <param atrr="Signature" value="">
</Profile>
<Action>
    <param atrr="FavorInfo" value="extractFavorInfo()">
    <param atrr="UserData" value="extractUserData()">
</Action>
<Contents>
      <param atrr="sex" value="male">
      <param atrr="age" value="24">
      <param atrr="hobby" value="baseball">
      <param atrr="hansin" value="0.20">
      <param atrr="soccer" value="0.10">
      <param atrr="proyakyu" value="0.10">
      <param atrr="nihon" value="0.26">
                        .
                        .
                        .
      <param atrr="free-agent" value="0.01">
</Contents>
</Agent>
```


EP 1 209 599 A2

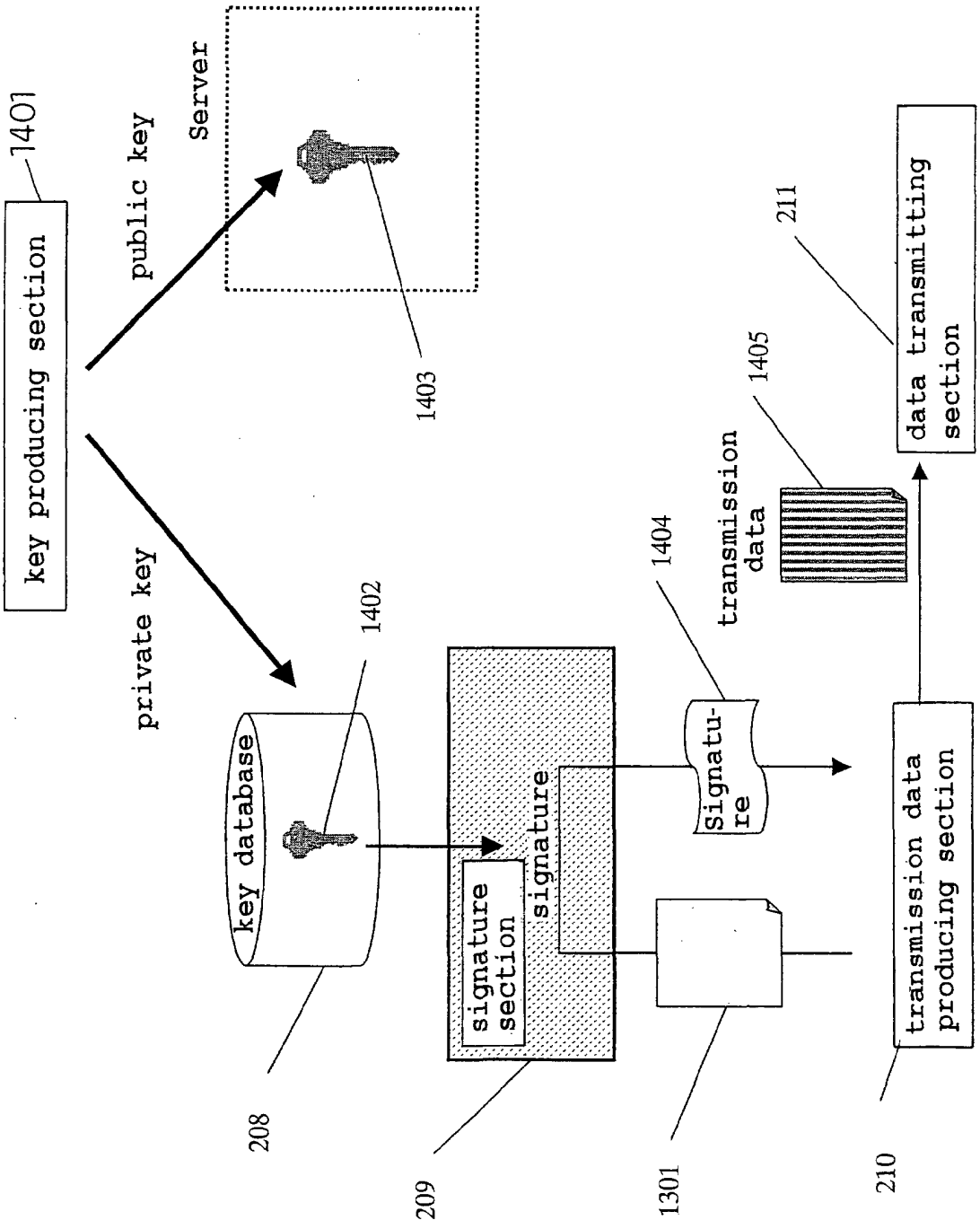

1401
key producing section
public key
private key
Server
1403
1402
key database
208
signature section
signature
209
1404
Signatu-re
1301
transmission data
1405
211
data transmitting section
transmission data producing section
210

Fig. 14

Fig. 15

1405

```
<Agent>
<Profile>
      <param atrr="ToIP" value="128.188.24.22">
      <param atrr="FromIP" value="142.164.98.1">
      <param atrr="Name" value="Kato">
      <param atrr="Signature" value="72f3b2cf59448c1a9232bc7f">
</Profile>
<Action>
     <param atrr="FavorInfo" value="extractFavorInfo()">
     <param atrr="UserData" value="extractUserData()">
</Action>
<Contents>
      <param atrr="sex" value="male">
      <param atrr="age" value="24">
      <param atrr="hobby" value="baseball">
      <param atrr="hansin" value="0.20">
      <param atrr="soccer" value="0.10">
      <param atrr="proyakyu" value="0.10">
      <param atrr="nihon" value="0.26">
                        .
                        .
                        .
      <param atrr="free-agent" value="0.01">
</Contents>
</Agent>
```


EP 1 209 599 A2

Fig. 16

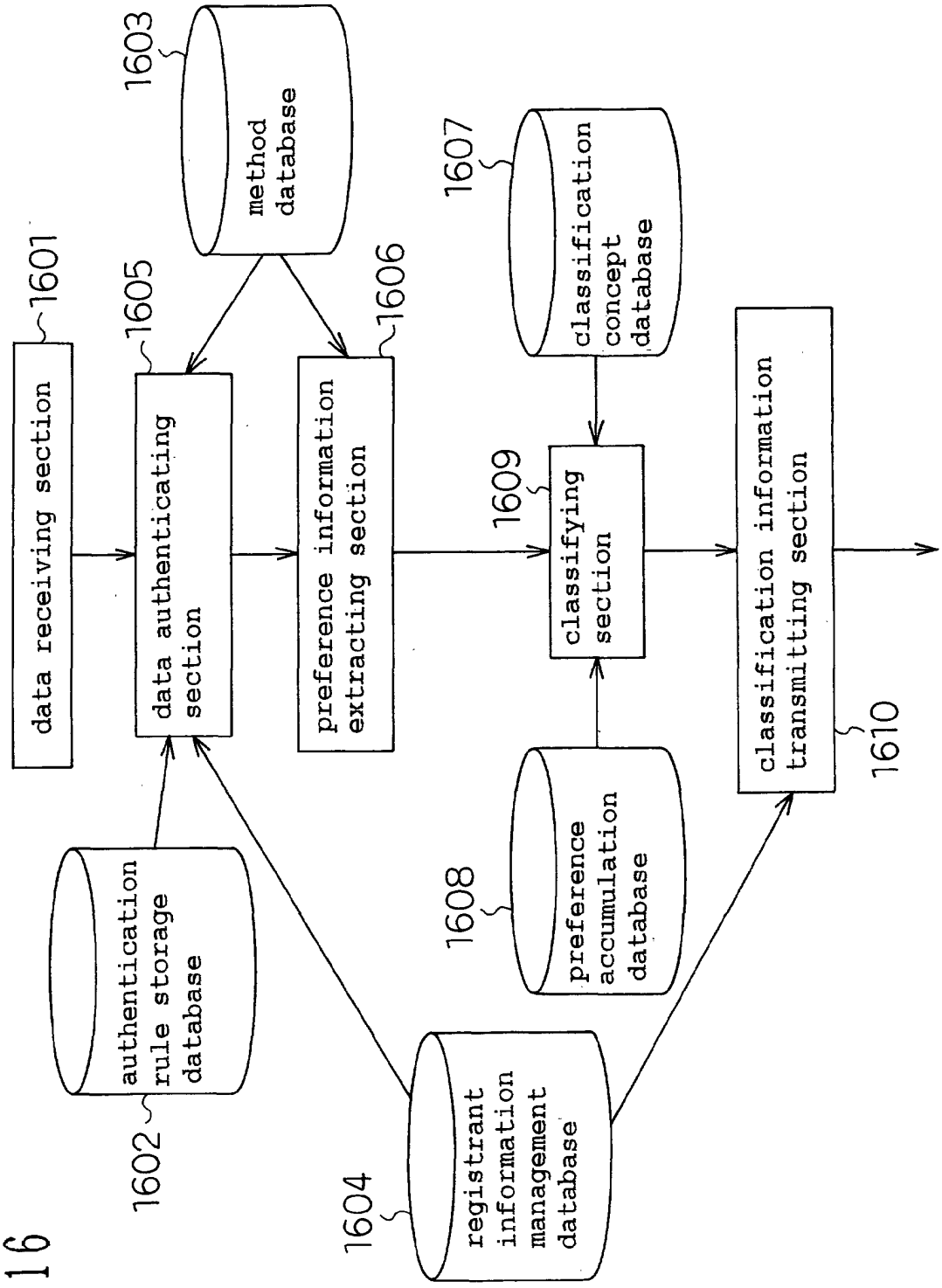

1601
data receiving section
1602
authentication rule storage database
1603
method database
1604
registrant information management database
1605
data authenticating section
1606
preference information extracting section
1607
classification concept database
1608
preference accumulation database
1609
classifying section
1610
classification information transmitting section

Fig. 17

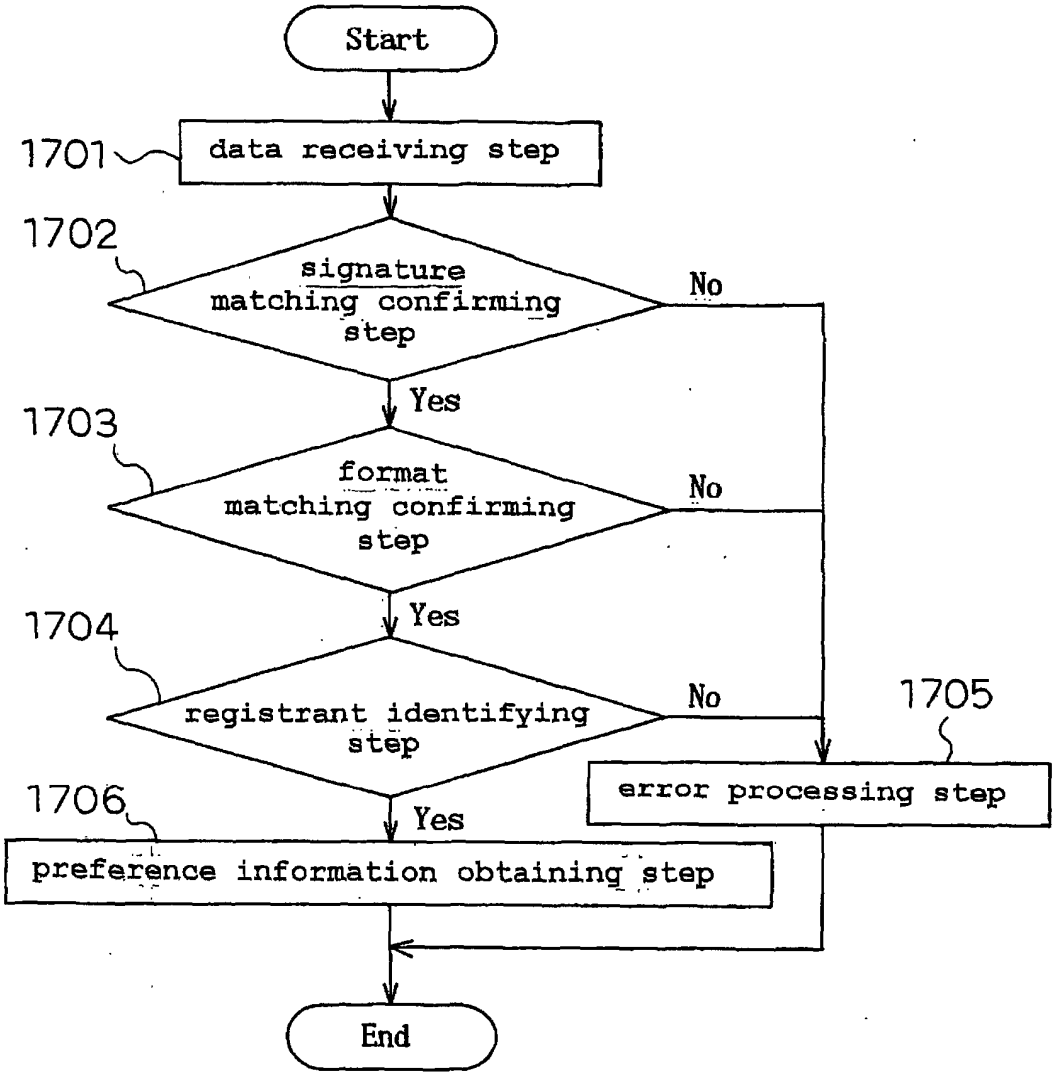
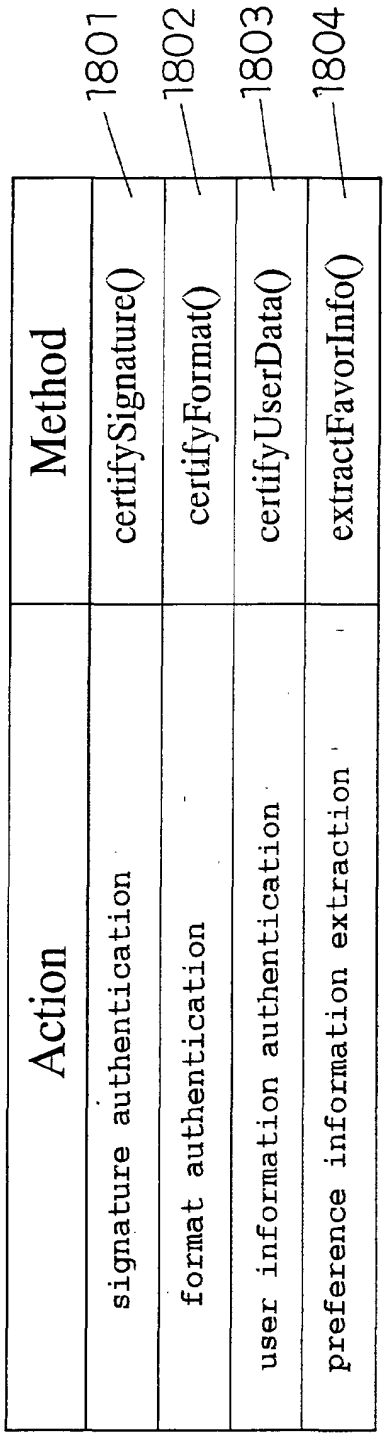

Start
1701
data receiving step
1702
signature matching confirming step
No
Yes
1703
format matching confirming step
No
Yes
1704
registrant identifying step
No
1705
error processing step
1706
Yes
preference information obtaining step
End

Fig. 18



Action	Method
signature authentication	certifySignature()
format authentication	certifyFormat()
user information authentication	certifyUserData()
preference information extraction	extractFavorInfo()

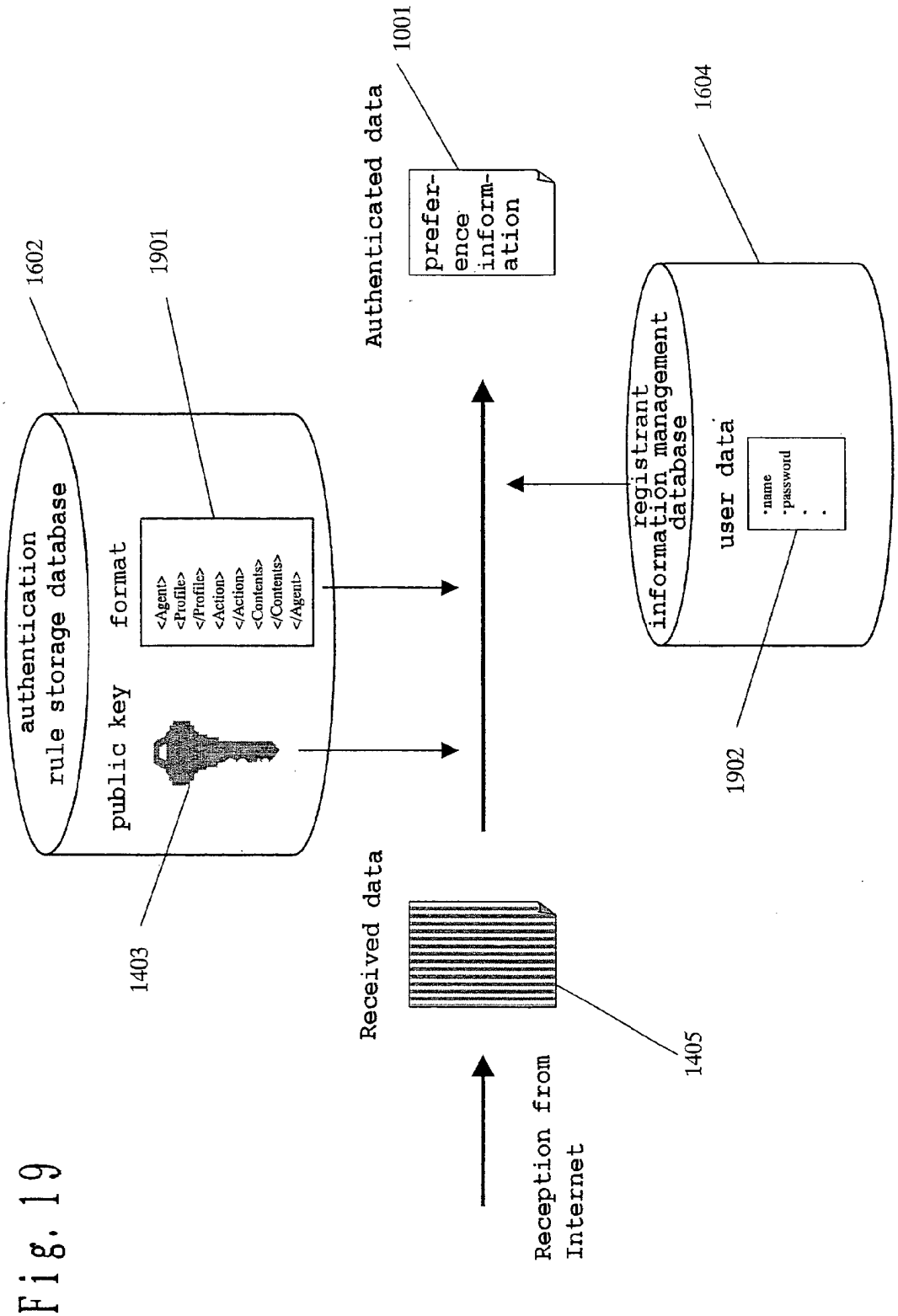

authentication rule storage database
1602
public key
format
1901
<Agent>
<Profile>
</Profile>
<Action>
</Action>
<Contents>
</Contents>
</Agent>
1403
Authenticated data
1001
preference information
registrant information management database
1604
user data
·name
·password
1902
Received data
1405
Reception from Internet

Fig. 19

Fig. 20

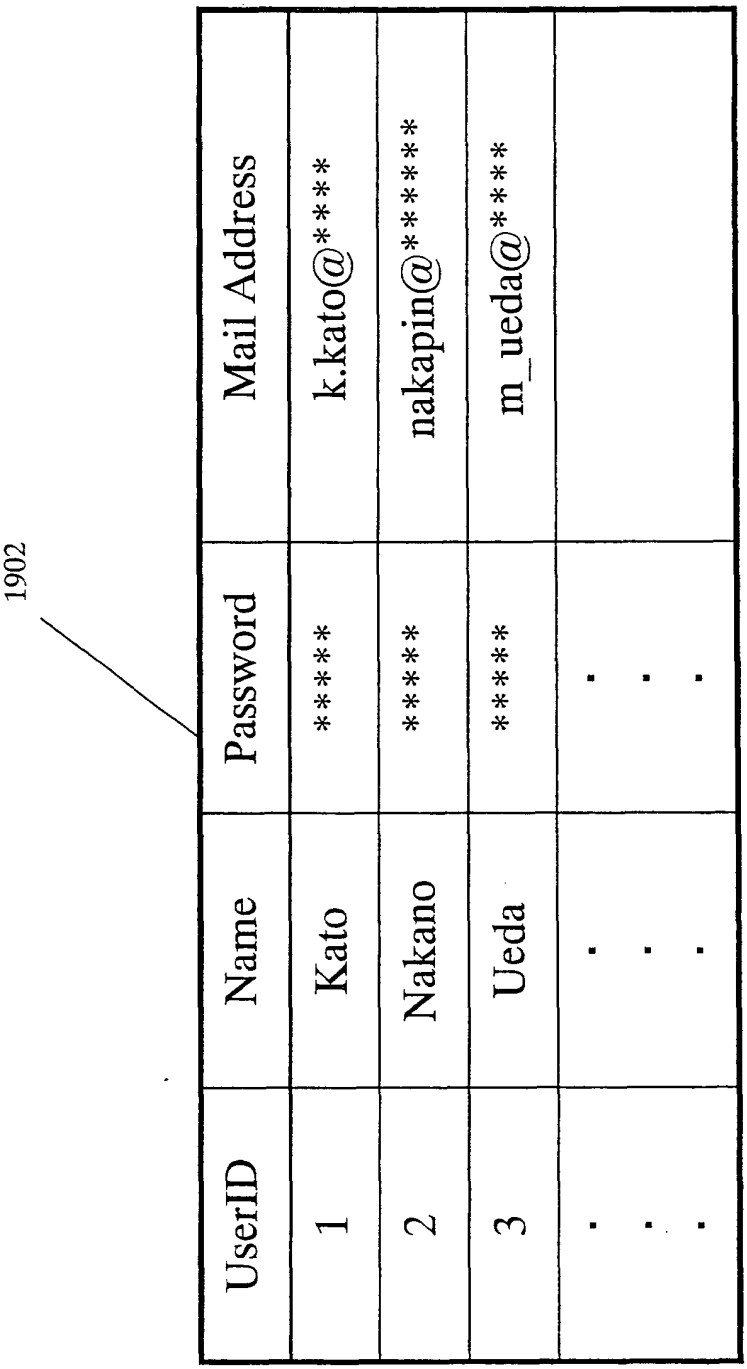

1902
UserID
Name
Password
Mail Address
1
Kato
******
k.kato@****
2
Nakano
******
nakapin@******
3
Ueda
******
m_ueda@****

Fig. 21

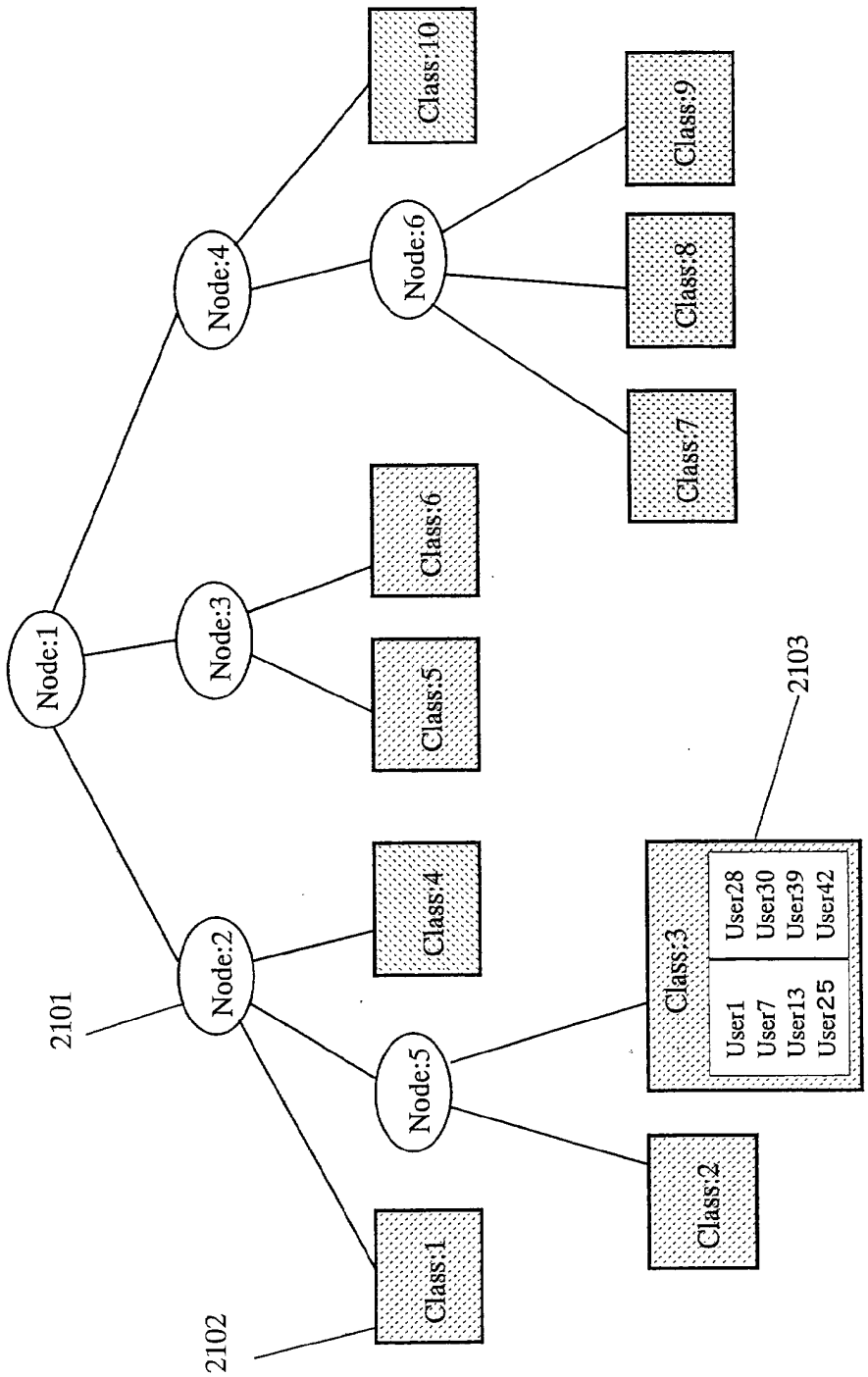

Node:1
Node:2
Node:3
Node:4
Node:5
Node:6
Class:1
Class:2
Class:3
Class:4
Class:5
Class:6
Class:7
Class:8
Class:9
Class:10
User1
User7
User13
User25
User28
User30
User39
User42
2101
2102
2103

Fig. 22A

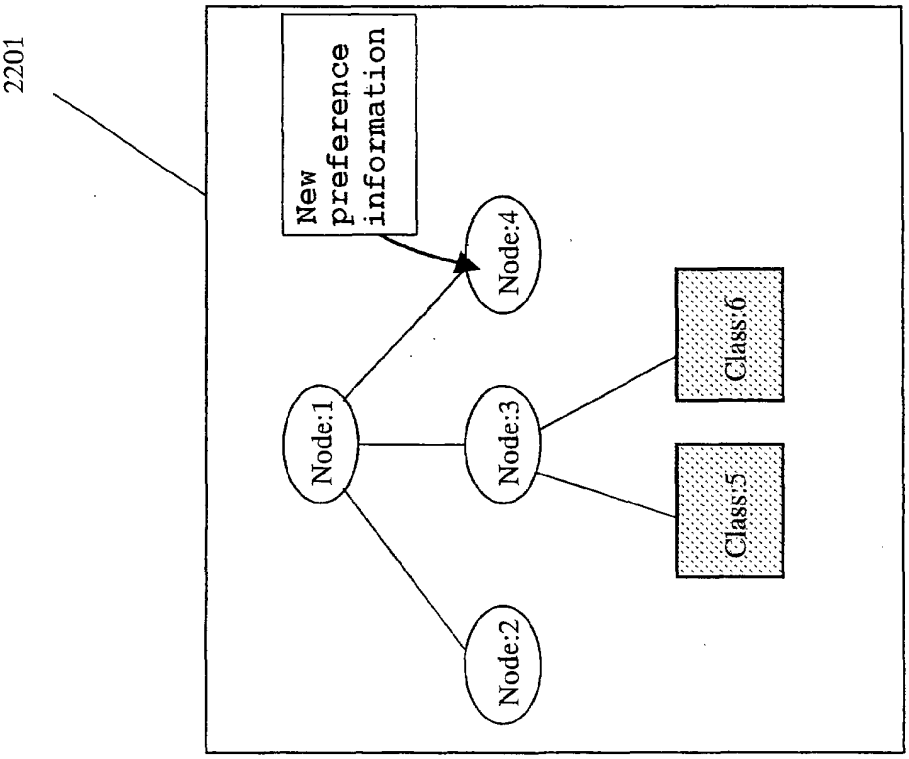


Fig. 22B

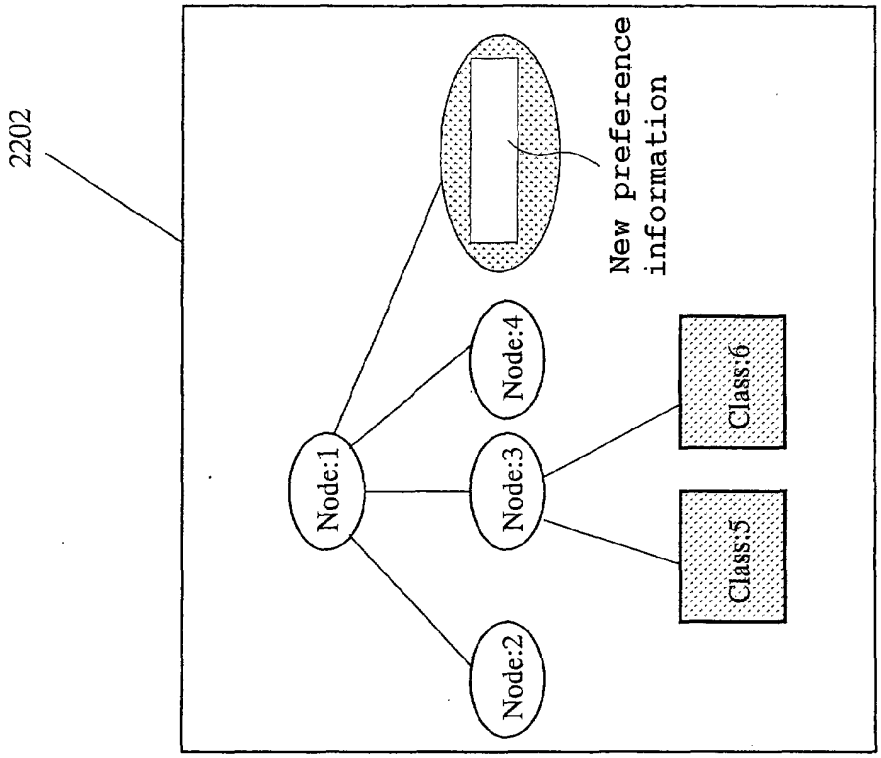


Fig. 23A

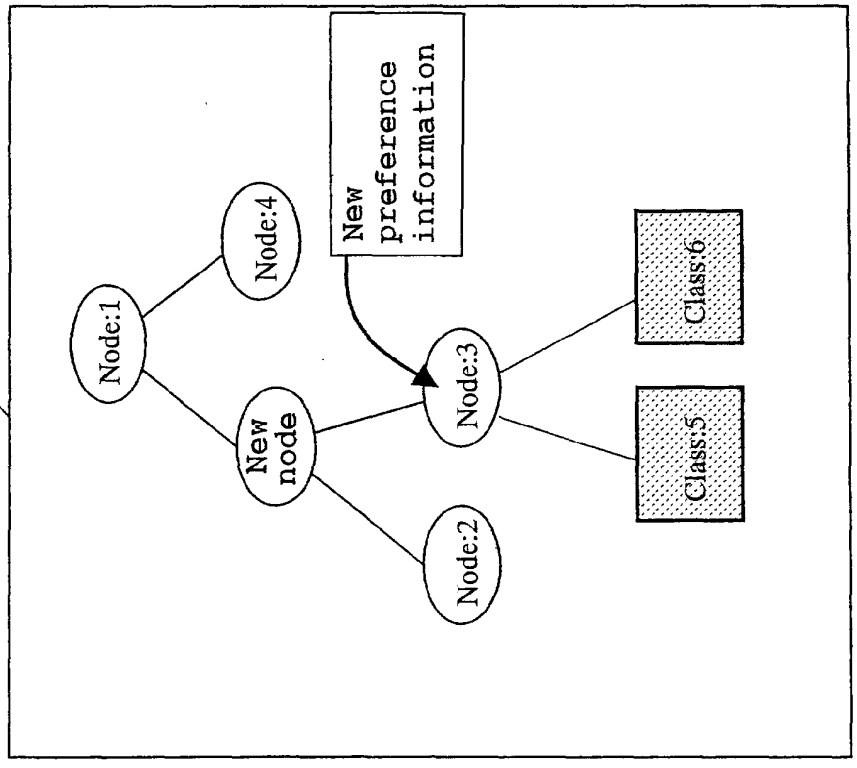


Fig. 23B

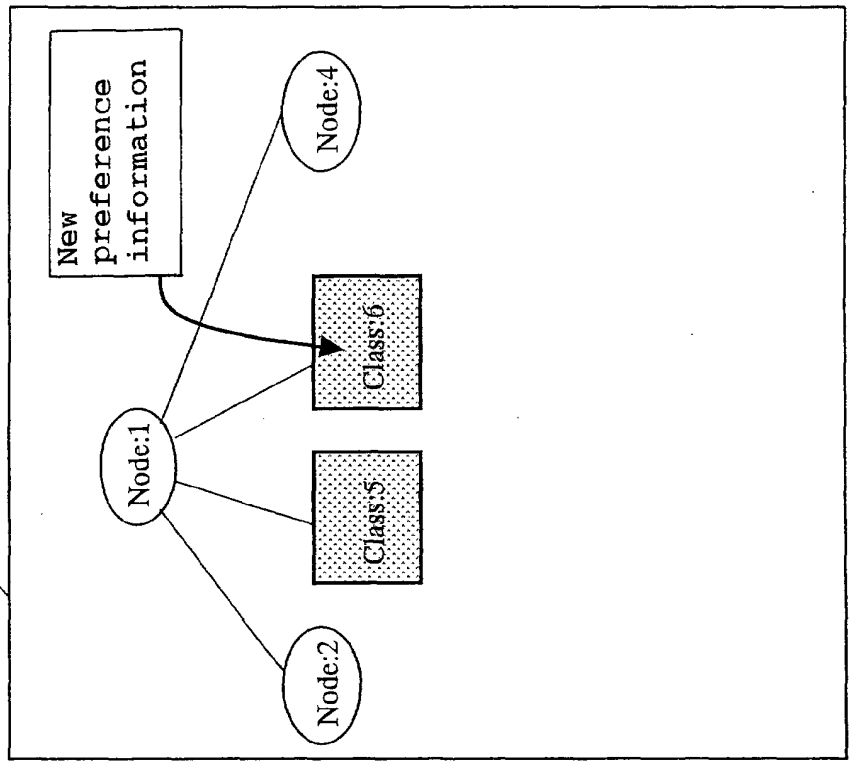


Fig. 24

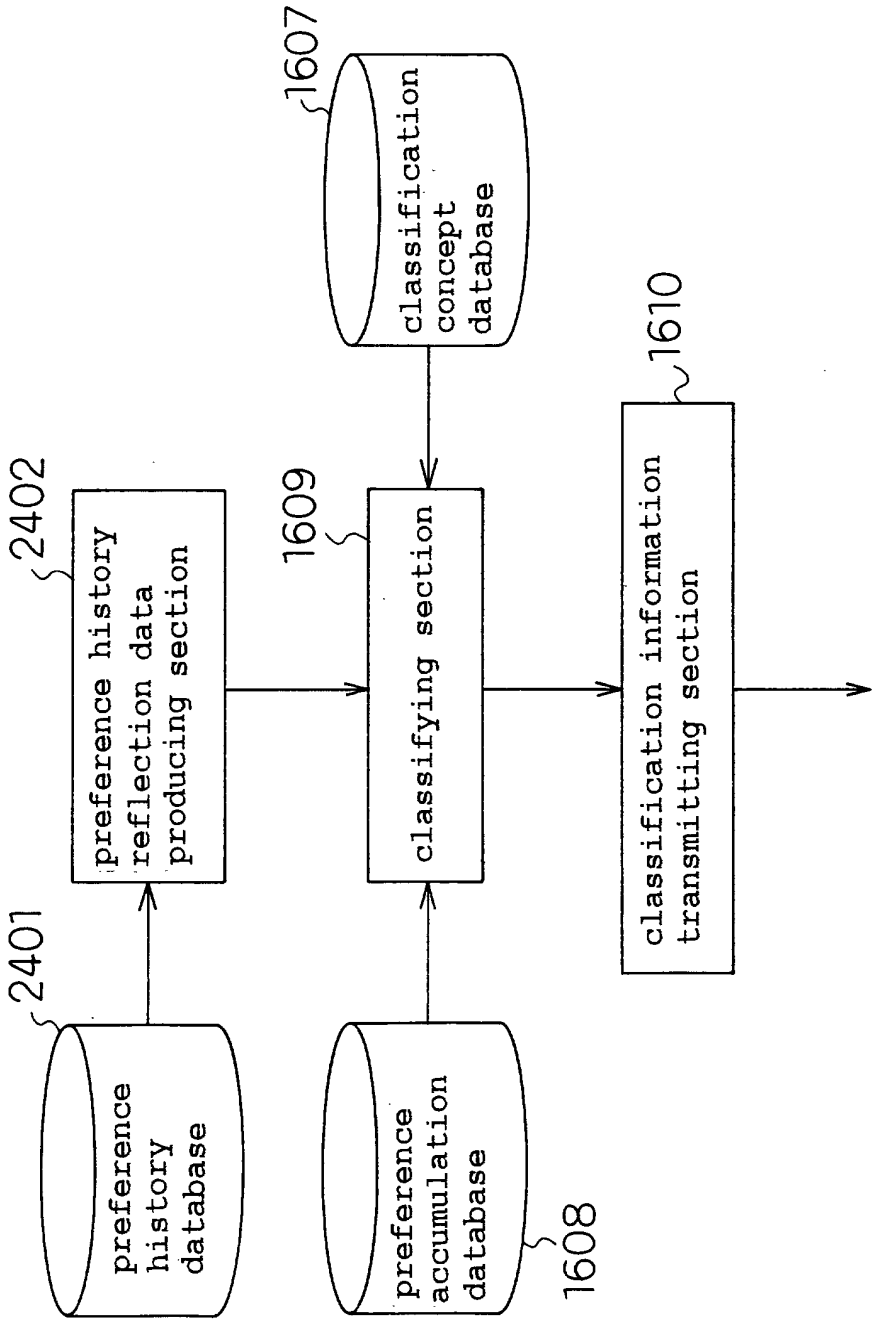
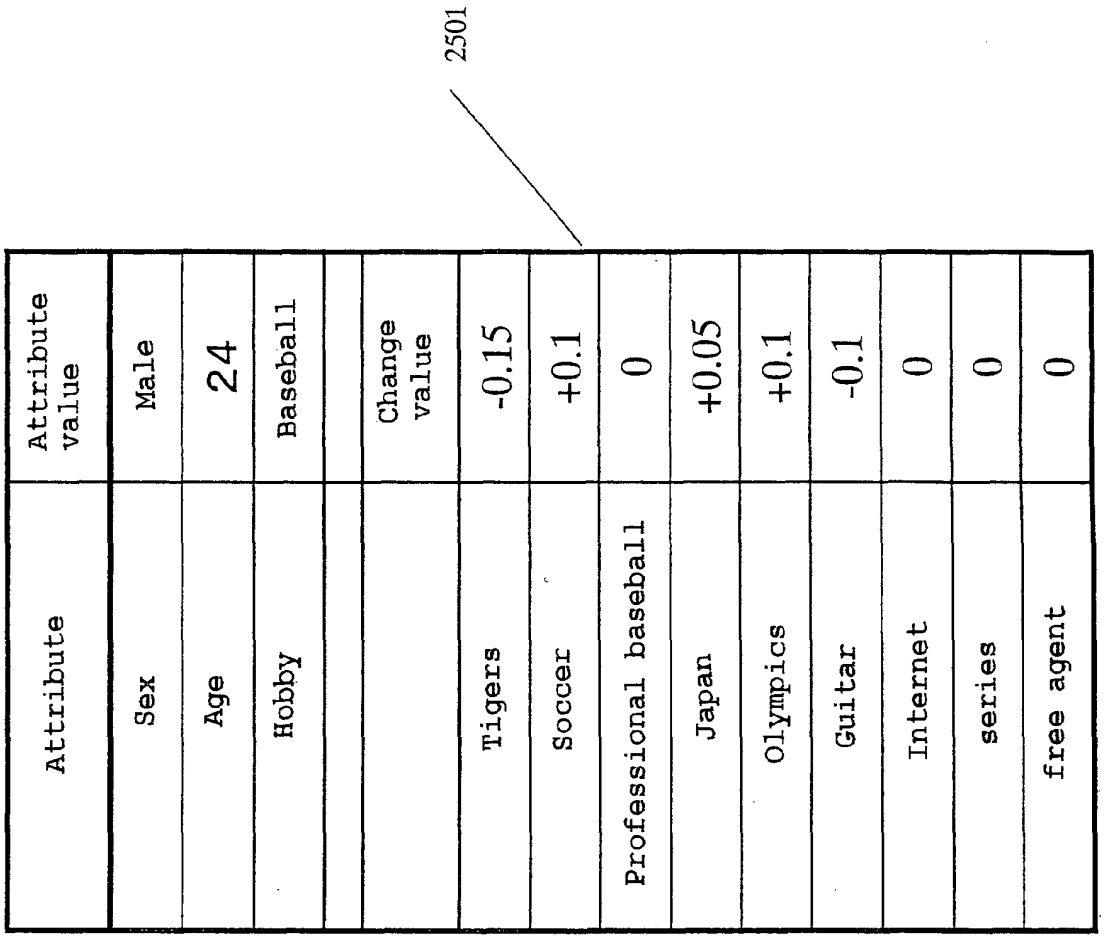
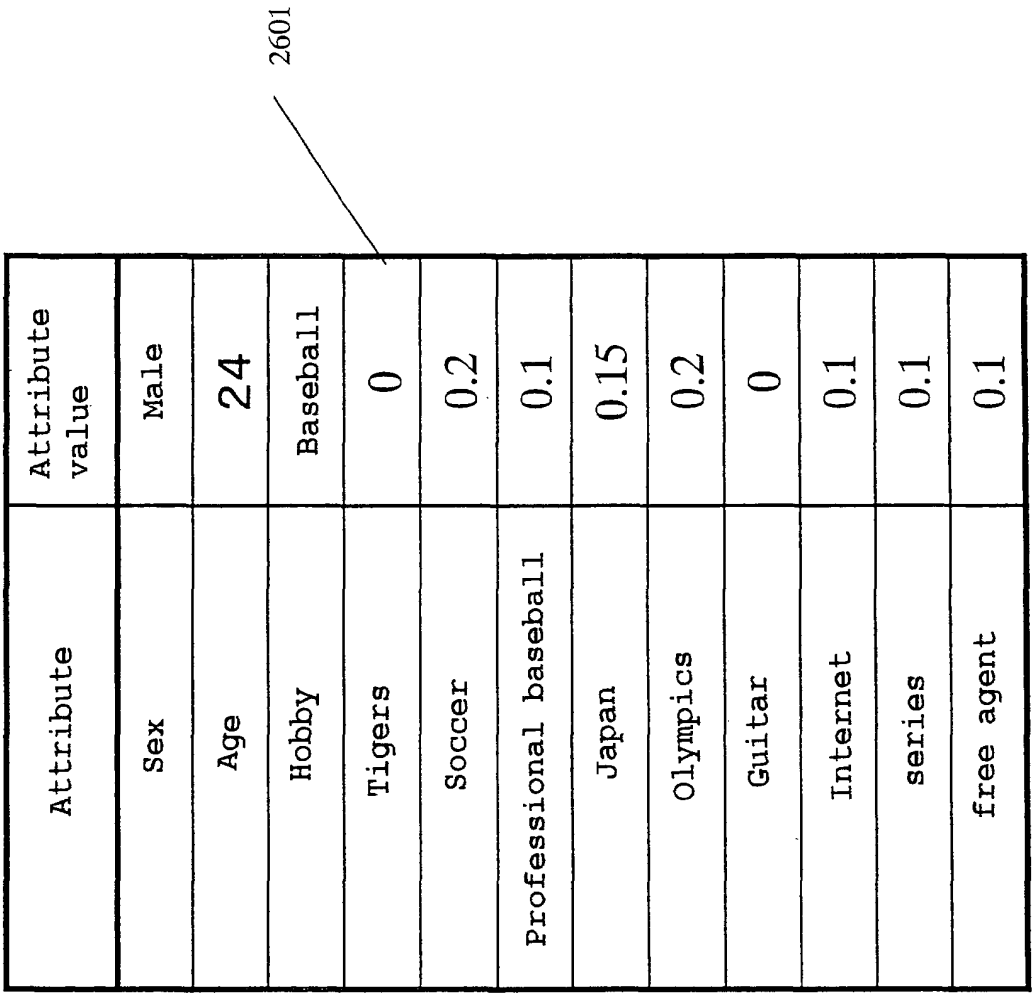

1607
classification concept database
1610
2402
preference history reflection data producing section
1609
classifying section
classification information transmitting section
2401
preference history database
preference accumulation database
1608

Fig. 25



Attribute	Attribute value
Sex	Male
Age	24
Hobby	Baseball
	Change value
Tigers	-0.15
Soccer	+0.1
Professional baseball	0
Japan	+0.05
Olympics	+0.1
Guitar	-0.1
Internet	0
series	0
free agent	0



Attribute	Attribute value
Sex	Male
Age	24
Hobby	Baseball
Tigers	0
Soccer	0.2
Professional baseball	0.1
Japan	0.15
Olympics	0.2
Guitar	0
Internet	0.1
series	0.1
free agent	0.1

Fig. 26

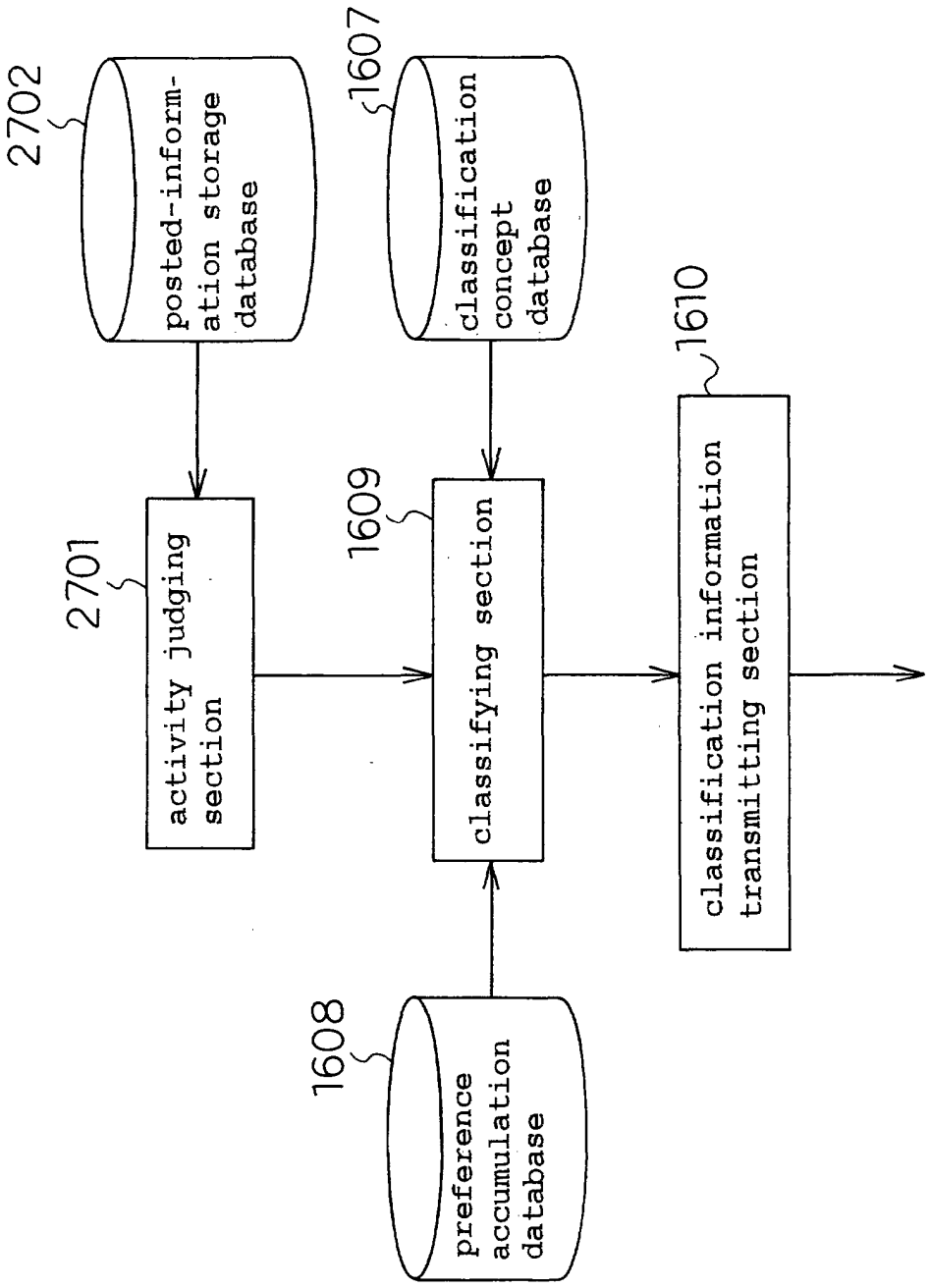

2702
posted-information storage database
1607
classification concept database
1610
2701
activity judging section
1609
classifying section
classification information transmitting section
1608
preference accumulation database

Fig. 27

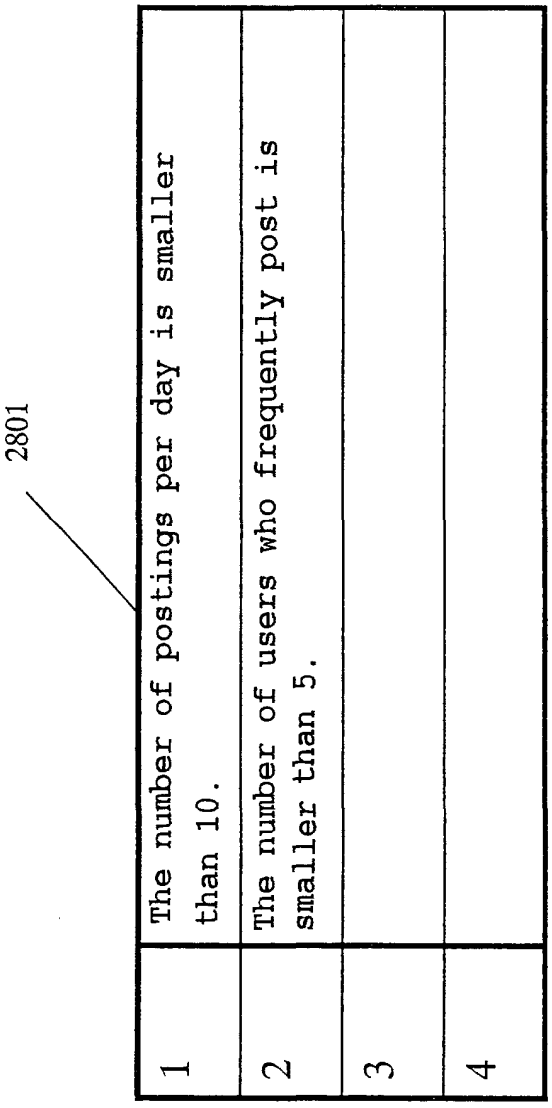

2801
1
The number of postings per day is smaller than 10.
2
The number of users who frequently post is smaller than 5.
3
4

Fig. 28

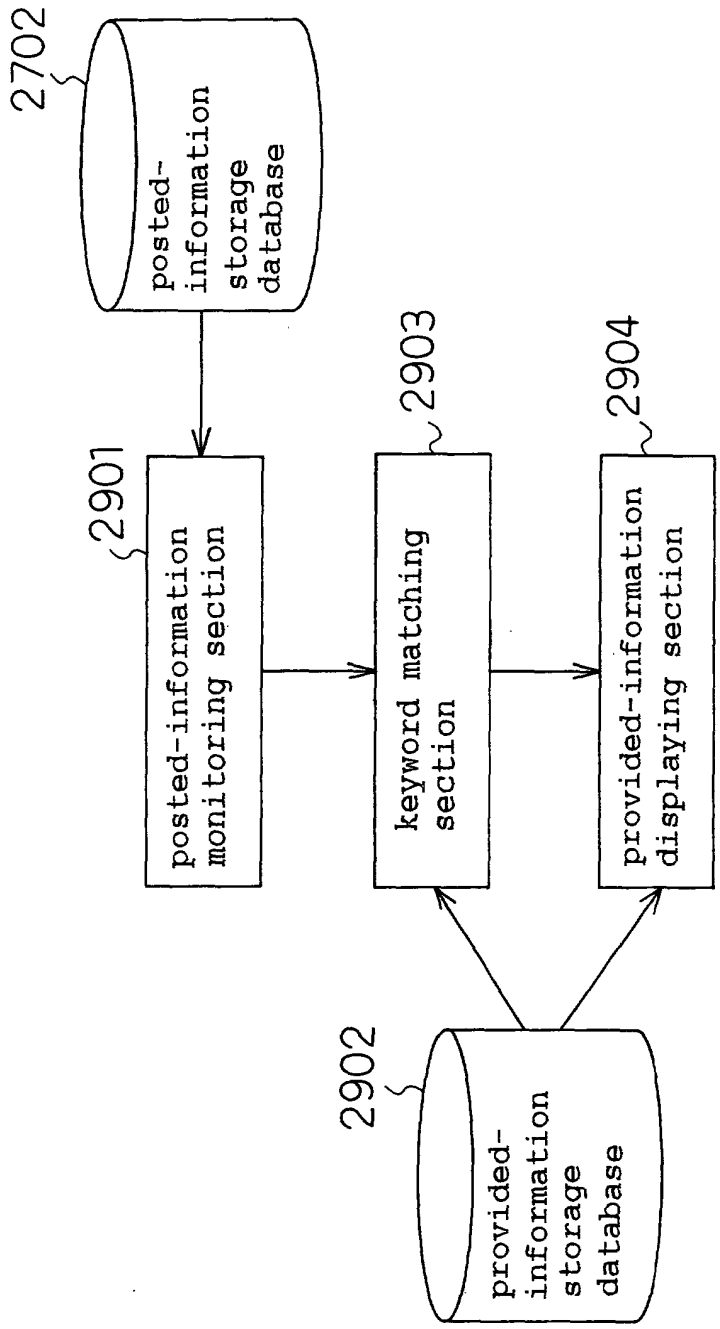

2702
posted-information storage database
2901
posted-information monitoring section
2903
keyword matching section
2904
provided-information displaying section
2902
provided-information storage database

Fig. 29

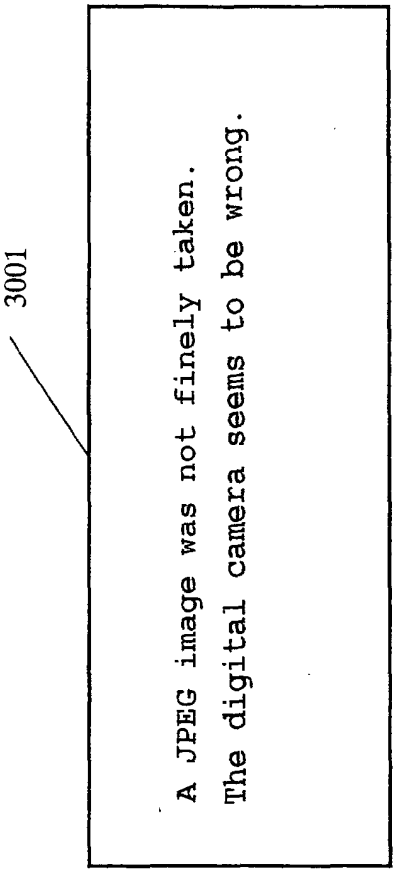

3001
A JPEG image was not finely taken.
The digital camera seems to be wrong.

Fig. 30

Fig. 31

3101

Keyword	Reference URL
Diaper	http://www. omutu.com
Digital camera	http://www.marumarudenki.co.jp/digi-came
Ticket	http://www2.ticket-get.co.jp

Fig. 32

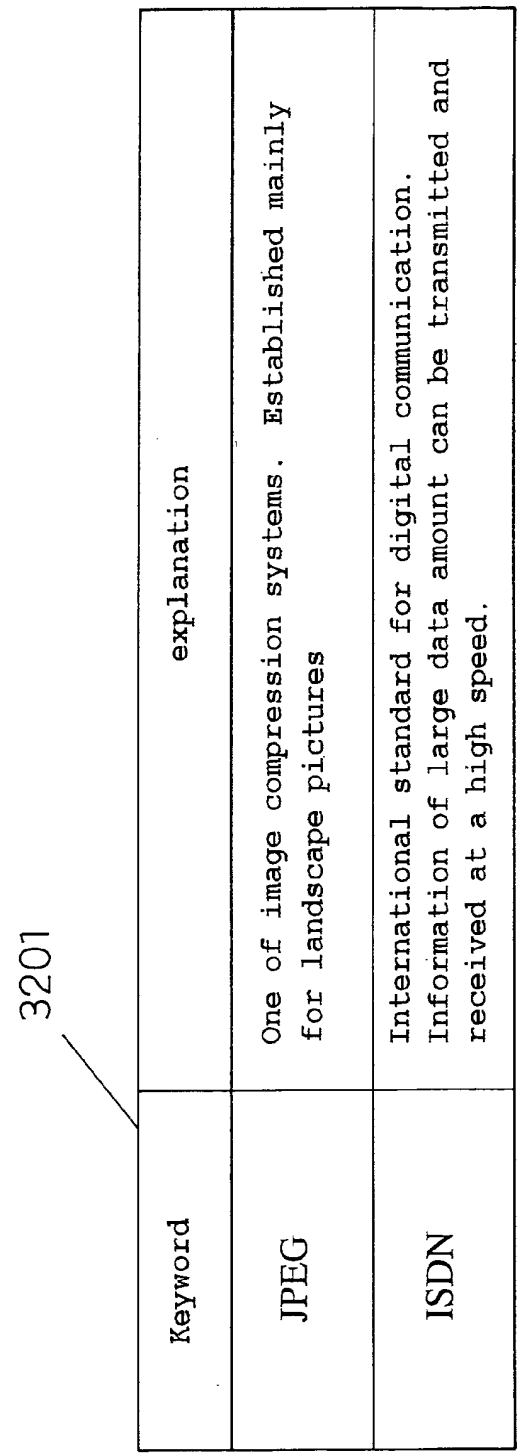

3201
Keyword
explanation
JPEG
One of image compression systems. Established mainly for landscape pictures
ISDN
International standard for digital communication. Information of large data amount can be transmitted and received at a high speed.

Fig. 33

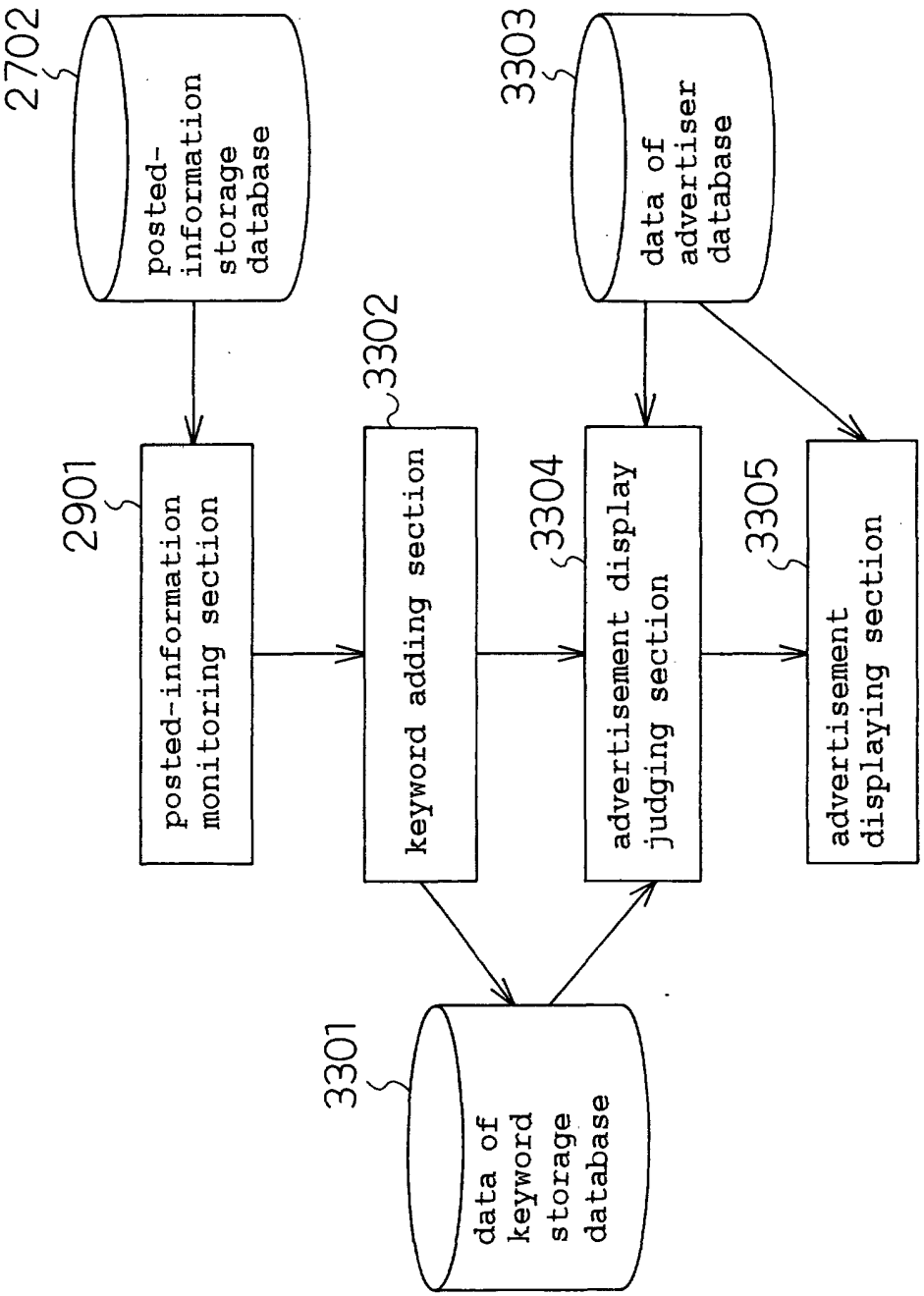
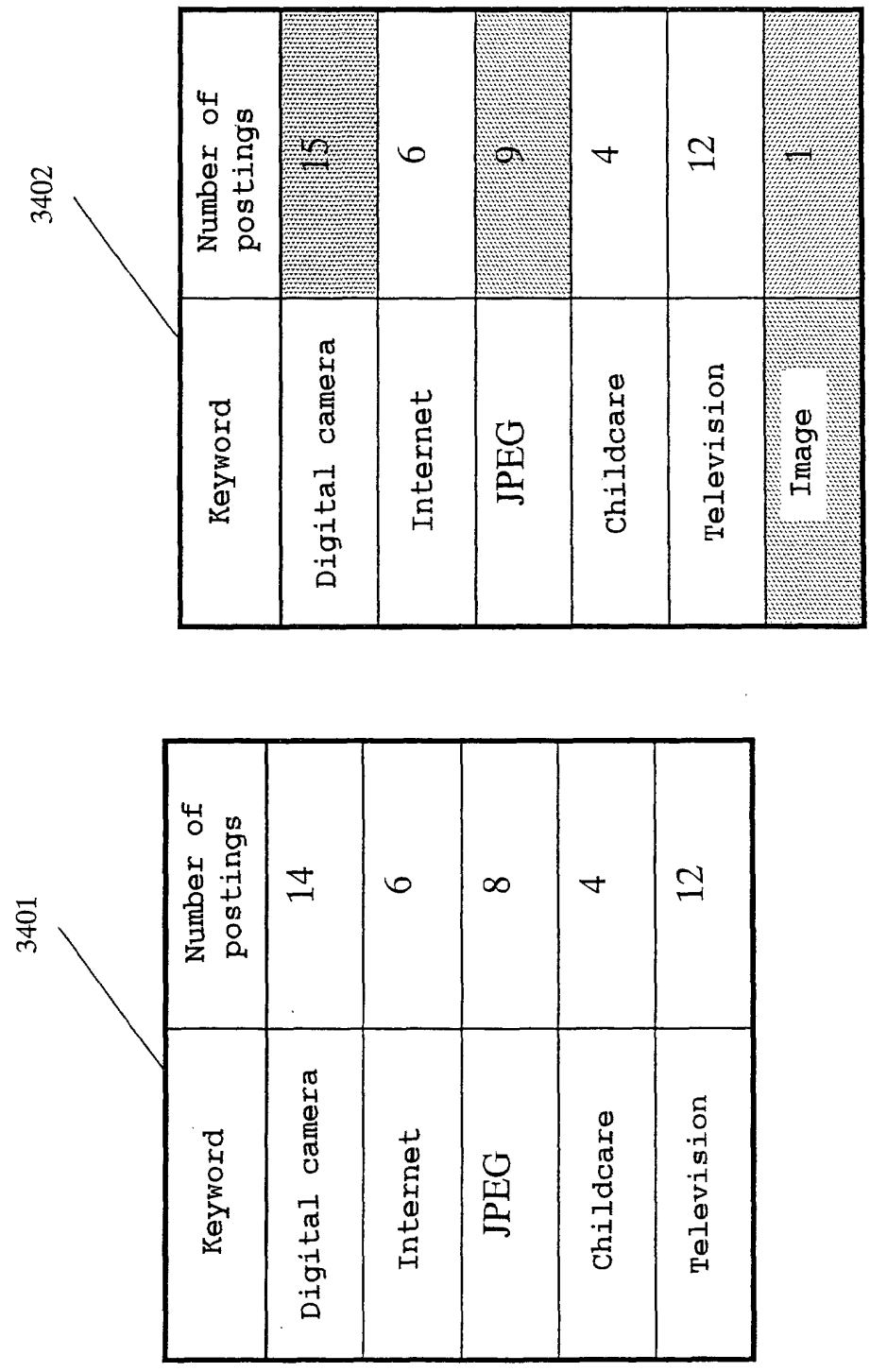

2702
posted-information storage database
3303
data of advertiser database
2901
posted-information monitoring section
3302
keyword adding section
3304
advertisement display judging section
3305
advertisement displaying section
3301
data of keyword storage database

Fig. 34



3401

Keyword	Number of postings
Digital camera	14
Internet	6
JPEG	8
Childcare	4
Television	12

3402

Keyword	Number of postings
Digital camera	15
Internet	6
JPEG	9
Childcare	4
Television	12
Image	1

Fig. 35

3501

Name of enterprise	Keyword 1	Keyword 2	Advertisement information
A company	JPEG : 5	Digital : 10 camera	 Best time to buy
B company	Television : 10	Newspaper : 10	 Please look in.

Fig. 36

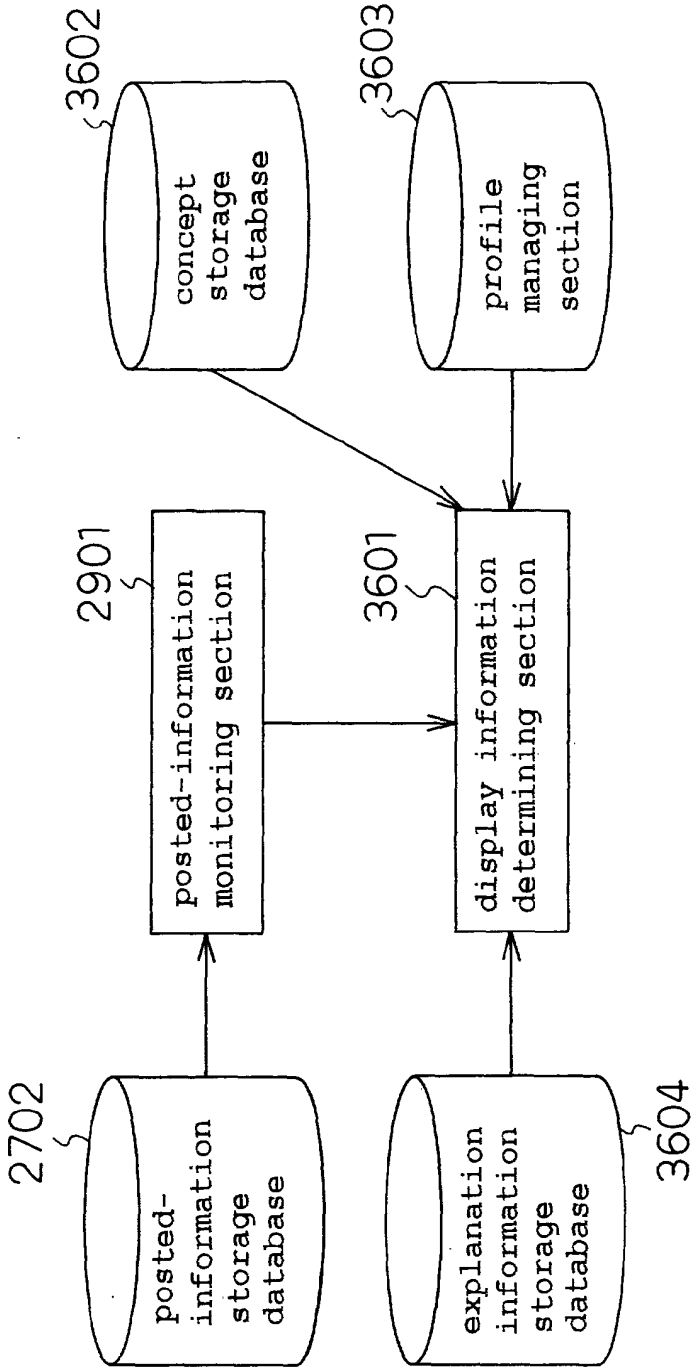
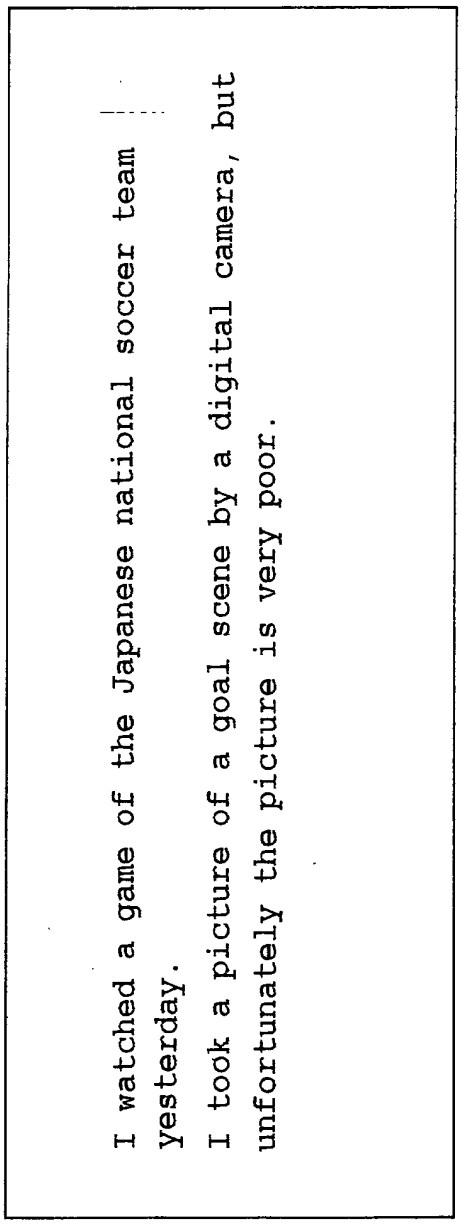

3602
concept storage database
3603
profile managing section
2901
posted-information monitoring section
3601
display information determining section
2702
posted-information storage database
explanation information storage database
3604

Fig. 37


I watched a game of the Japanese national soccer team yesterday.
I took a picture of a goal scene by a digital camera, but unfortunately the picture is very poor.

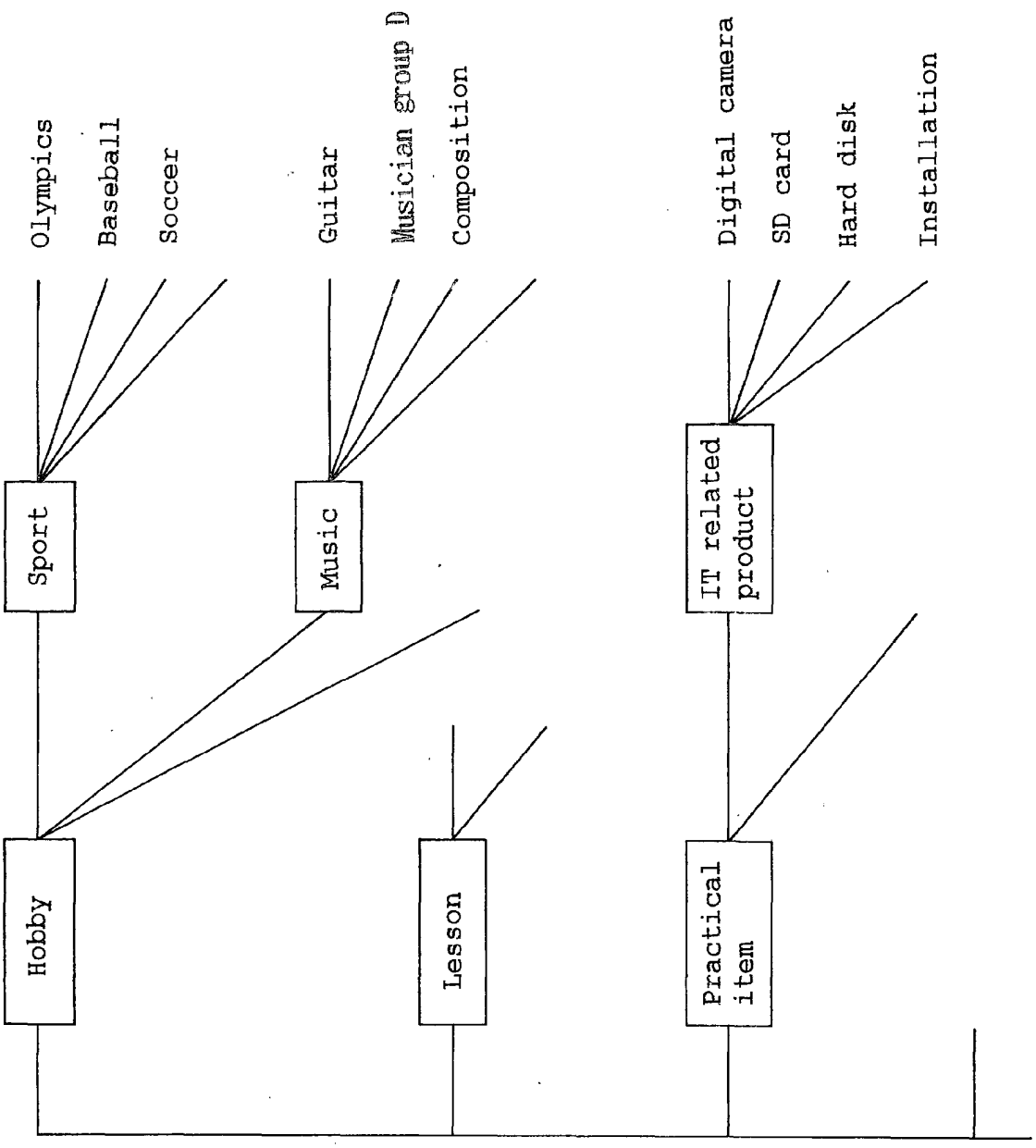

Hobby
Sport
Olympics
Baseball
Soccer
Music
Guitar
Musician group D
Composition
Lesson
Practical item
IT related product
Digital camera
SD card
Hard disk
Installation

Fig. 38

Fig. 39A

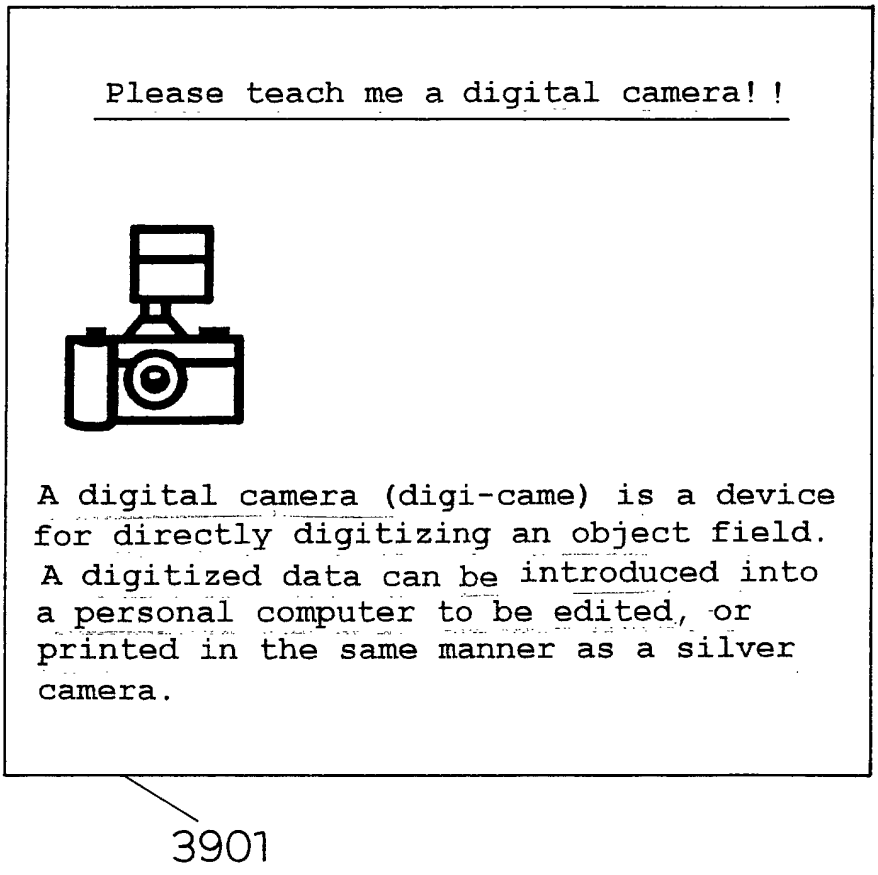
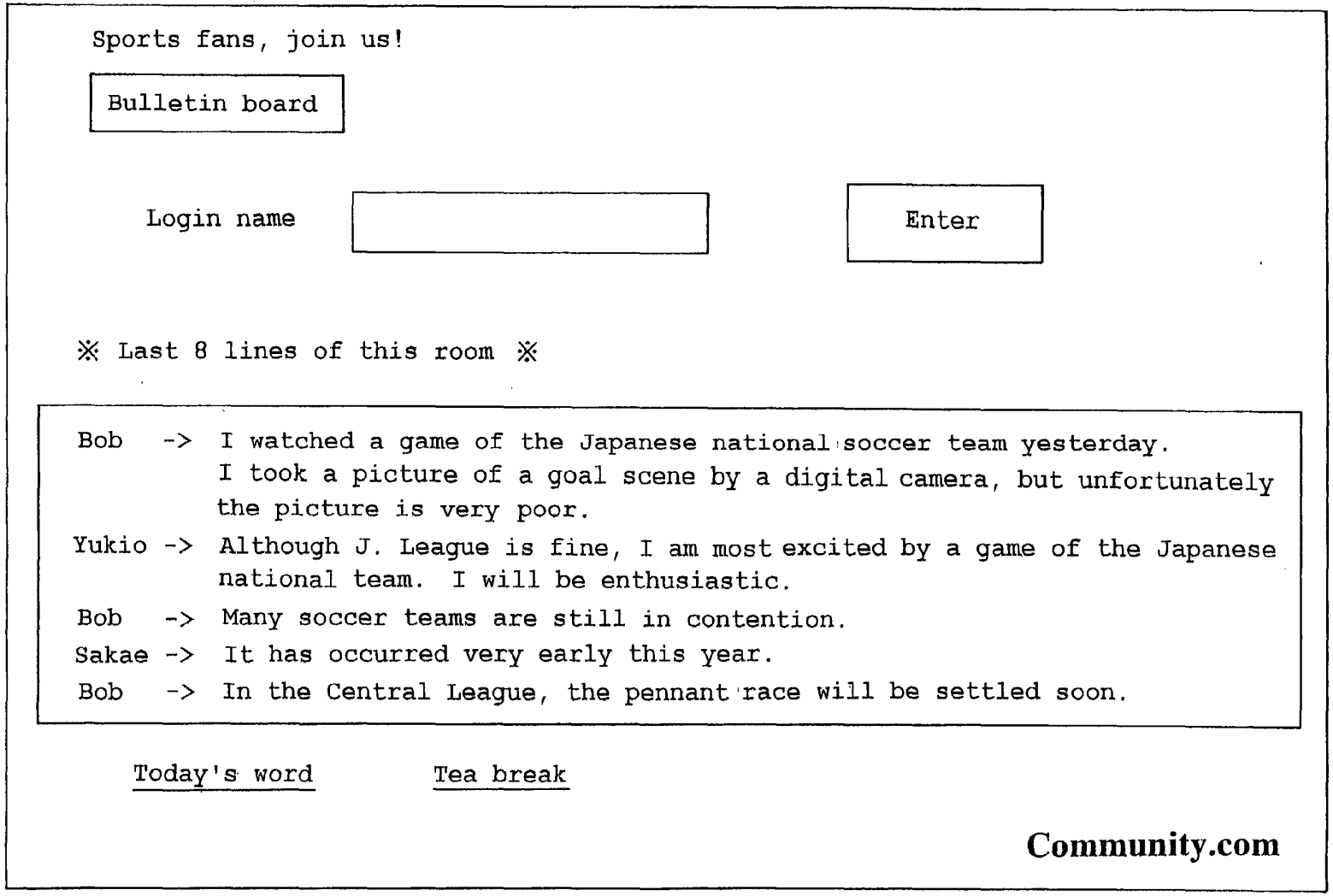

Please teach me a digital camera!!
A digital camera (digi-came) is a device for directly digitizing an object field. A digitized data can be introduced into a personal computer to be edited, or printed in the same manner as a silver camera.
3901

Fig. 39B



EP 1 209 599 A2

Fig. 40

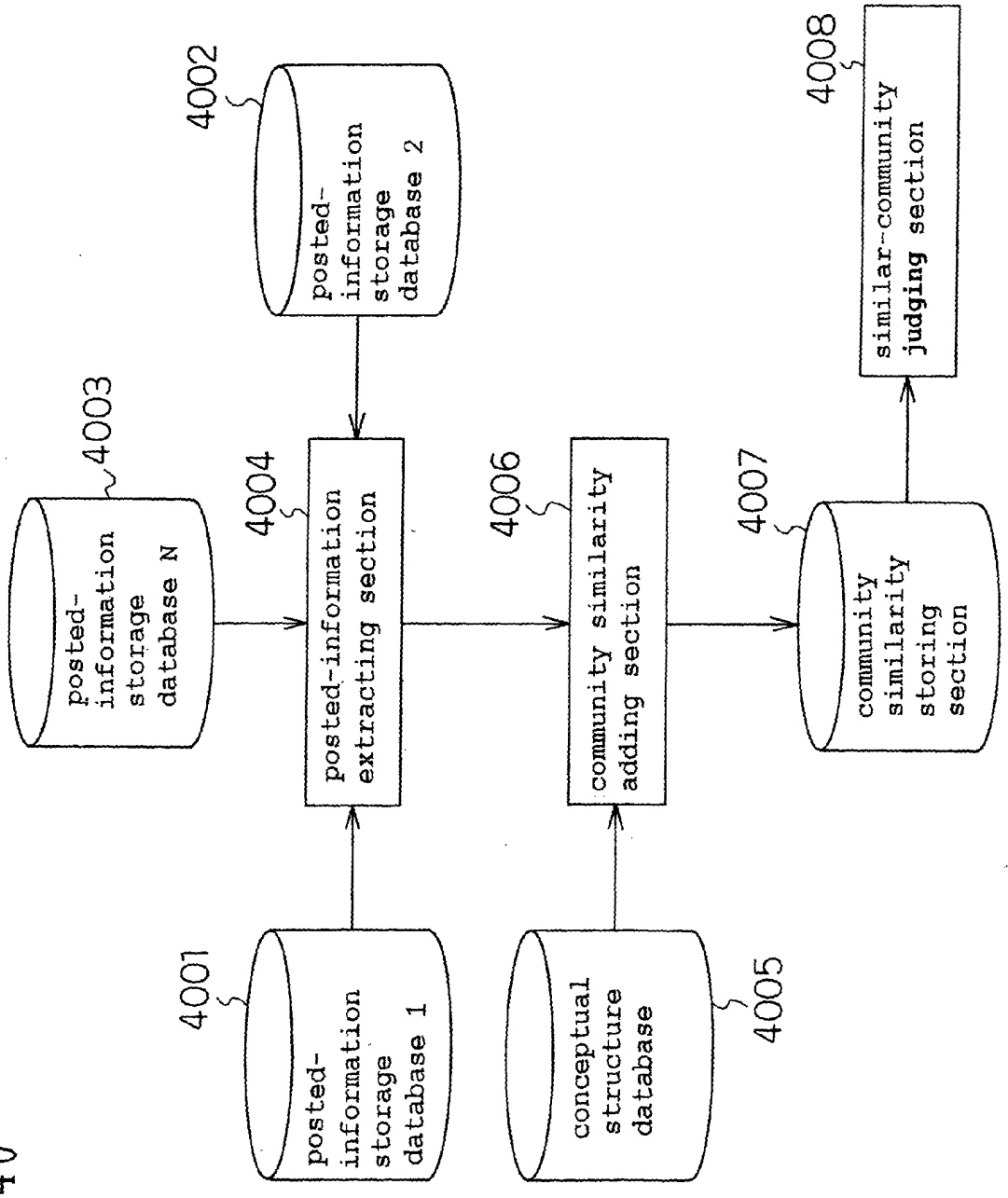

4001
posted-information storage database 1
4002
posted-information storage database 2
4003
posted-information storage database N
4004
posted-information extracting section
4005
conceptual structure database
4006
community similarity adding section
4007
community similarity storing section
4008
similar-community judging section

Fig. 41

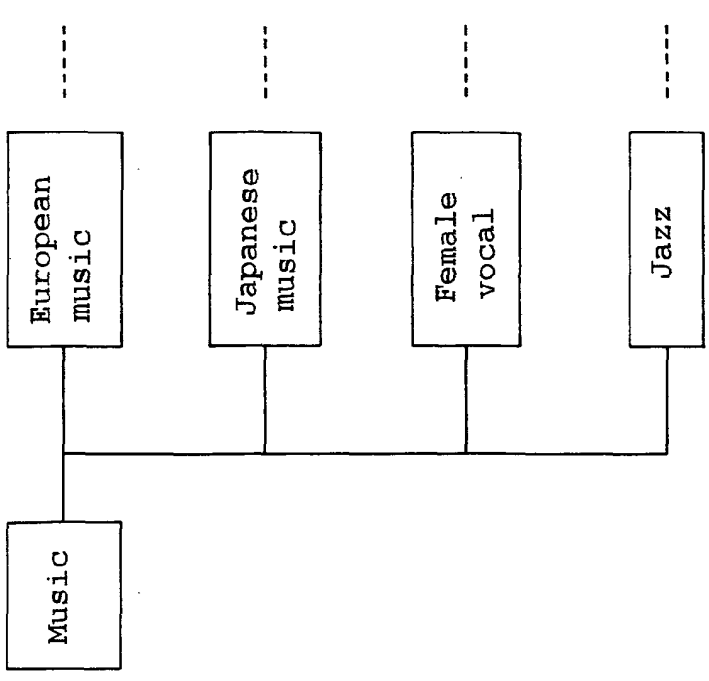
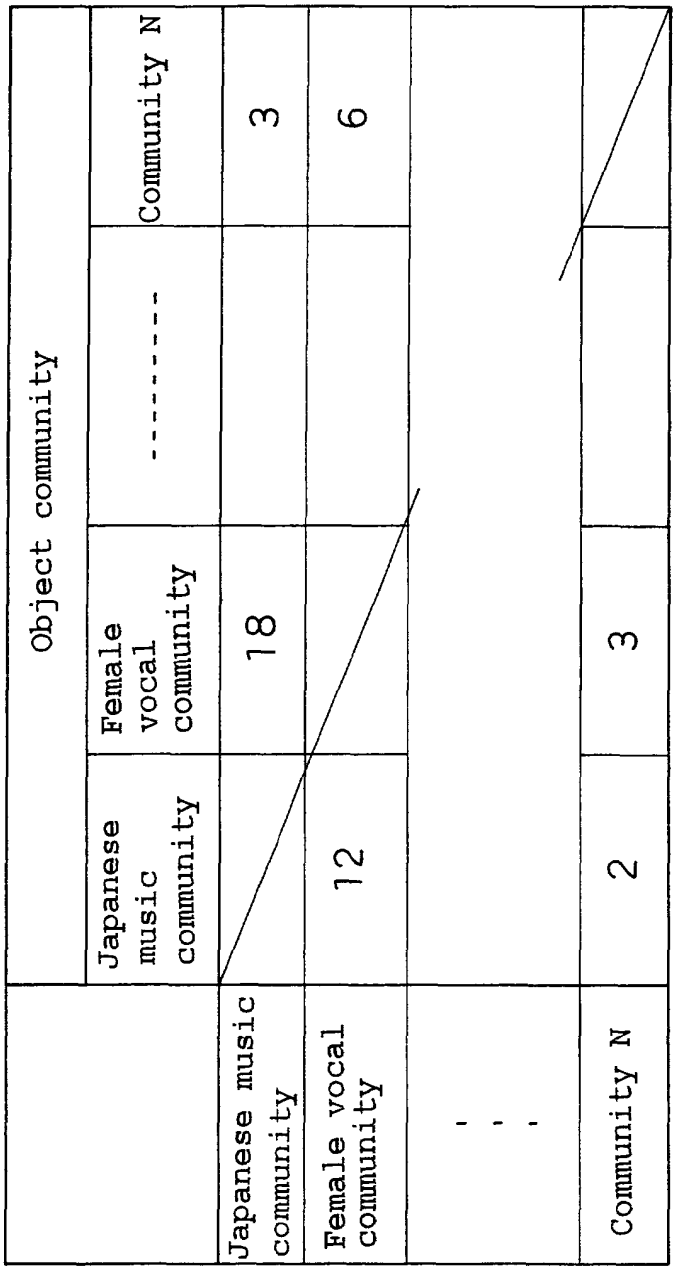

Music
European music
Musician group A , Artist A , Artist B , Artist C
Japanese music
Musician group B, Musician group C, Musician group D, Musician group E, Artist D
Female vocal
Female vocal A, Female vocal B, Female vocal C, Female vocal D
Jazz

Fig. 42



	Object community			
	Japanese music community	Female vocal community	---------	Community N
Japanese music community		18		3
Female vocal community	12			6
- - -				
Community N	2	3		

Fig. 43

Sam	-> Recently, it is well sold.
Midori	-> I like also the voice of Female vocal B.
Jiro	-> Yes, the voice is clear.
Sam	-> I think that Female vocal A of Musician group E has a sweet voice.
Jiro	-> Yes, I like Musician group E.
Sam	-> Recently, new bands also become popular.
Midori	-> Also the new piece of music is nice.
Sam	-> I bought the new piece of Musician group A at once.

EP 1 209 599 A2

Fig. 44

	Object community			
	Japanese music community	Female vocal community	----------	Community N
Japanese music community		20		3
Female vocal community	12			6
, , ,				
Community N	2	3		

Fig. 45

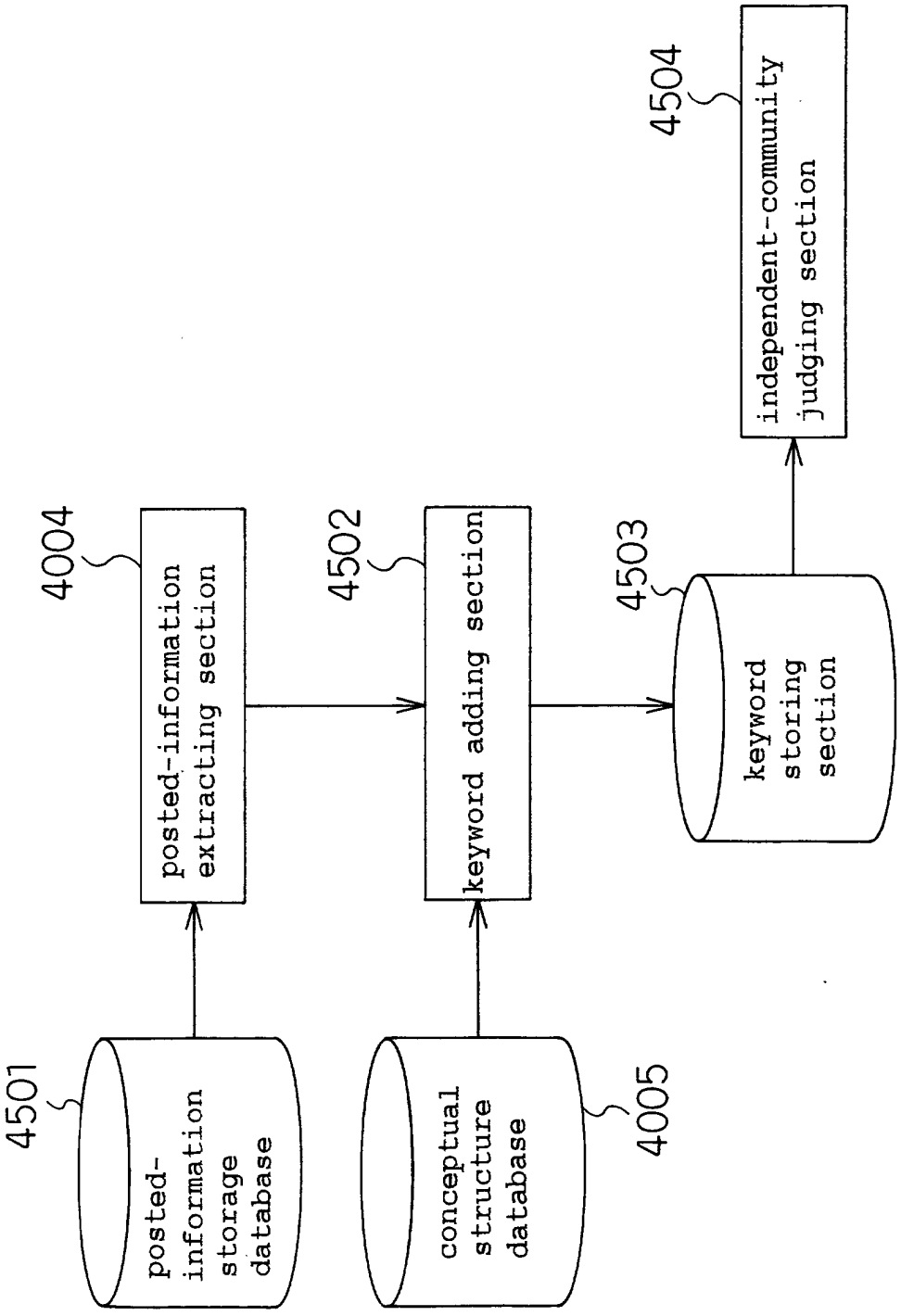

4501
posted-information storage database
4004
posted-information extracting section
4502
keyword adding section
4503
keyword storing section
4504
independent-community judging section
4005
conceptual structure database

Fig. 46

		Kind of lower-level category			
		European music	Japanese music	Female vocal	Jazz
Members of music community	Sam	8	26	32	3
	Midori	12	24	7	2
	Jiro	4	5	2	16
	Kenta	2	0	0	1
	Maki	18	35	32	0
	. . .	. . .	. . .	. . .	. . .
	June	41	19	10	6

EP 1 209 599 A2

Fig. 47

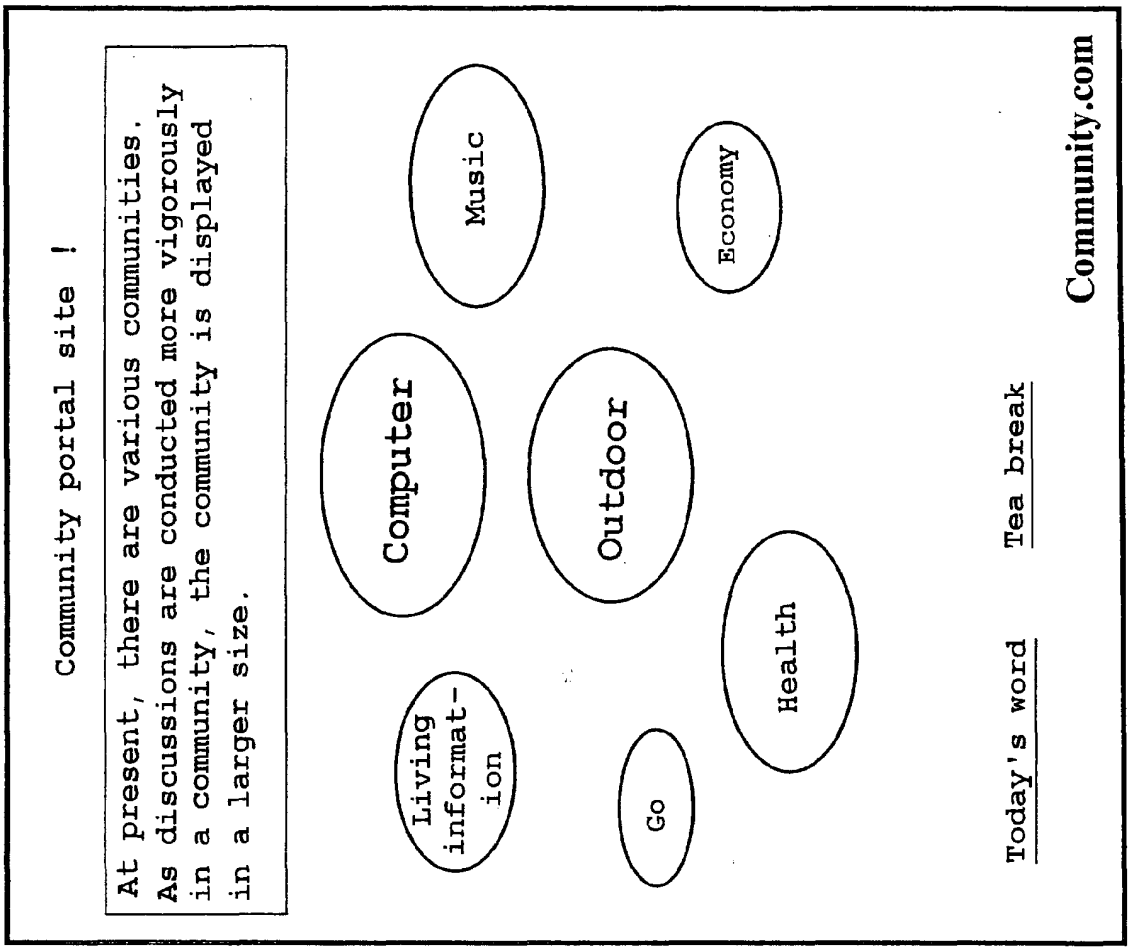
Midori	->	I like Artist B. But, it is difficult to sing a song of the artist.
June	->	I remember Artist D.
Sam	->	I like Musician group A.
Maki	->	What kind of song do you sing?
Midori	->	I will go to karaoke after a long interval.

EP 1 209 599 A2

Fig. 48

		Kind of lower-level category			
		European music	Japanese music	Female vocal	Jazz
Members of music community	Sam	8	27	32	3
	Midori	13	24	7	2
	Jiro	4	5	2	16
	Kenta	2	0	0	1
	Maki	18	35	32	0
	. . .	. . .	. . .	. . .	. . .
	June	41	20	10	6

Fig. 49


Community portal site !
At present, there are various communities. As discussions are conducted more vigorously in a community, the community is displayed in a larger size.
Computer
Music
Living information
Outdoor
Economy
Go
Health
Today's word
Tea break
Community.com

(19)日本国特許庁(JP)　(12)公開特許公報(A)　(11)特許出願公開番号
特開2005-244647
(P2005-244647A)
(43)公開日　平成17年9月8日(2005.9.8)

(51)Int.Cl.[7]		F I			テーマコード（参考）
H04L	12/58	H04L	12/58	100Z	5K030
G06F	13/00	G06F	13/00	610A	
G06F	17/60	G06F	17/60	132	

審査請求 未請求　請求項の数 10　OL　（全 18 頁）

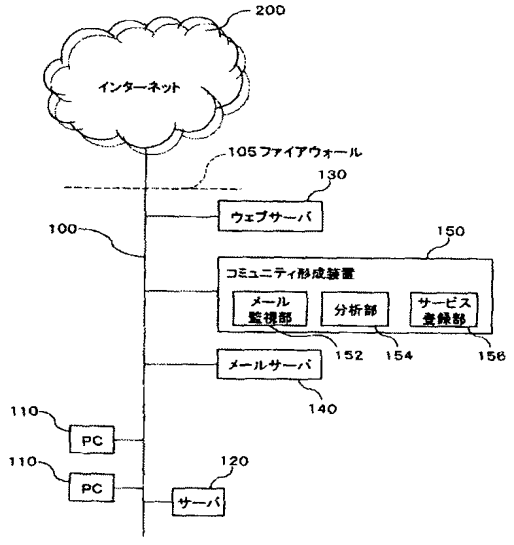
(21)出願番号　特願2004-52209(P2004-52209)
(22)出願日　平成16年2月26日(2004.2.26)

(71)出願人　000005496
富士ゼロックス株式会社
東京都港区赤坂二丁目１７番２２号
(74)代理人　100075258
弁理士　吉田　研二
(74)代理人　100096976
弁理士　石田　純
(72)発明者　西川　英二
東京都港区赤坂二丁目１７番２２号　富士ゼロックス株式会社内
(72)発明者　阿部　仁
東京都港区赤坂二丁目１７番２２号　富士ゼロックス株式会社内

最終頁に続く

(54)【発明の名称】コミュニティ形成装置

(57)【要約】
【課題】電子メールのやりとりにより潜在的に形成されているコミュニティを顕在化し、コミュニティに対しサービスを提供する。
【解決手段】メール監視部１５２は、ＬＡＮ１００を流れる電子メールのパケットを抽出し、その中から転送された電子メールを求め、その転送の情報を蓄積する。分析部１５４は、メール監視部１５２が蓄積したメール転送の情報から、電子メールの転送が高い頻度で行われているユーザ同士を結んだネットワークを求め、そのネットワークを１つのコミュニティと判定する。サービス登録部１５６は、求められたコミュニティ用の情報交換用のウェブページを作成してウェブサーバ１３０に登録し、該コミュニティに属する各ユーザに対しそのウェブページを知らせる電子メールを送信する。
【選択図】図１



【特許請求の範囲】
【請求項１】
コンピュータシステムを、
ユーザ間をやりとりされる電子メールを監視して、ユーザから別のユーザへと転送又は返信される電子メールを検出するメール監視手段、
前記メール監視手段が検出した転送又は返信の電子メールの情報に基づき、電子メールを転送する関係にあるユーザ群を１つのコミュニティと認識し、該コミュニティを構成するユーザ群の情報を含んだコミュニティ情報を作成するコミュニティ認識手段、
として機能させるためのプログラム。
【請求項２】
前記コミュニティ認識手段は、転送又は返信された電子メールが各ユーザ間を通った回数をそれぞれ計数し、その計数値が所定の閾値以上となったユーザ間の連結範囲を１つのコミュニティと認識することを特徴とする請求項１記載のプログラム。
【請求項３】
前記コンピュータシステムを更に、前記メール監視手段で検出された転送又は返信の電子メールの情報に基づき、該転送又は返信の電子メールが由来する最初の電子メールの重要性指標値を求める重要性判定手段、として機能させると共に、
前記コミュニティ認識手段は、求められた前記最初の電子メールの重要性指標値を該最初の電子メールの発信者ごとに集計することにより各ユーザの重要情報発信スコアを計算し、該重要情報発信スコアの値に基づき前記コミュニティに含まれるユーザの中から１以上のキーパーソンを特定し、該キーパーソンの情報を含んだ前記コミュニティ情報を作成する、
ことを特徴とする請求項１又は２に記載のプログラム。
【請求項４】
前記重要性判定手段は、前記転送又は返信の電子メールが転送されるのに要した時間に基づき、該電子メールに対応する前記最初の電子メールの前記重要性指標値を求めることを特徴とする請求項３記載のプログラム。
【請求項５】
前記コンピュータシステムを、更に、
前記コミュニティ認識手段が作成したコミュニティごとに、該コミュニティに属するユーザ間での情報交換のためのウェブページを自動生成するウェブページ自動生成手段、
前記コミュニティ認識手段が作成したコミュニティのキーパーソンに対し、該コミュニティに属するユーザ間での情報交換のためのウェブページの管理を依頼するための通知を行う管理依頼手段、
として機能させる請求項３記載のプログラム。
【請求項６】
前記コンピュータシステムを、更に、前記コミュニティ認識手段が作成したコミュニティごとに、該コミュニティに属するユーザ間での情報交換のためのウェブページを自動生成するウェブページ自動生成手段、として機能させる請求項１記載のプログラム。
【請求項７】
前記コンピュータシステムを、更に、
メーリングリストサーバに登録されている各メーリングリストのメンバ情報を取得するメーリングリスト情報取得手段、
前記コミュニティ認識手段が作成したコミュニティと各メーリングリストのメンバ情報とを比較し、この比較により該コミュニティがいずれかのメーリングリストのメンバをすべて含むことが判明した場合、該コミュニティに含まれるユーザ群をメンバとした拡張メーリングリストを作成して前記メーリングリストサーバに登録するメーリングリスト拡張手段、
として機能させる請求項１記載のプログラム。
【請求項８】

前記コンピュータシステムを、更に、検索条件を取得し、ユーザ間をやりとりされる電子メール群の中から該検索条件を満足する電子メール群を抽出するメール抽出手段、として機能させると共に、

前記コミュニティ認識手段は、前記メール抽出手段で抽出された電子メール群を対象範囲として前記コミュニティの認識を行う、ことを特徴とする請求項１記載のプログラム。

【請求項９】

ユーザ間をやりとりされる電子メールを監視して、ユーザから別のユーザへと転送又は返信される電子メールを検出するメール監視手段と、

前記メール監視手段が検出した転送又は返信の電子メールの情報に基づき、電子メールを転送する関係にあるユーザ群を１つのコミュニティと認識し、該コミュニティを構成するユーザ群の情報を含んだコミュニティ情報を作成するコミュニティ認識手段と、

を備えるコミュニティ形成装置。

【請求項１０】

コンピュータシステムにより実行されるコミュニティ形成方法であって、

該コンピュータシステムが、ユーザ間をやりとりされる電子メールを監視して、ユーザから別のユーザへと転送又は返信される電子メールを検出する監視ステップと、

該コンピュータシステムが、前記監視ステップで検出した転送又は返信の電子メールの情報に基づき、電子メールを転送する関係にあるユーザ群を１つのコミュニティと認識し、該コミュニティを構成するユーザ群の情報を含んだコミュニティ情報を作成するコミュニティ形成ステップと、

を含むコミュニティ形成方法。

【発明の詳細な説明】

【技術分野】

【０００１】

本発明は、ユーザ間でやりとりされる電子メールを監視することで、ユーザ達が潜在的に形成しているコミュニティを顕在化するための装置に関する。

【背景技術】

【０００２】

情報通信技術の発展に伴い、インターネット等のデータ通信ネットワーク上の社会でも、一般社会と同様、目的や関心などを共にするユーザのコミュニティが様々に形成されている。ネット社会のコミュニティは、従来より、電子掲示板やメーリングリスト、あるいはオフラインでの口コミや紹介など、様々な方法に形成されている。

【０００３】

しかし、従来のコミュニティ形成は、電子掲示板やメーリングリストにメンバー登録したり、あるいは友人を誘ったり等、参加したい或いはさせたい人の積極的な働きかけを駆動力としたものであるため、コミュニティの形成や成長に時間や労力が係るという問題がある。

【０００４】

コミュニティ形成に関する技術ではないが、ネット上のユーザ同士の通信に関する解析を利用した装置として特許文献１に示される個人プロファイル管理装置がある。この装置では、通信される情報から個人の専門の領域や興味を知るための重要な単語をプロファイルとして抽出し、当該単語の出現割合の変化の傾向に基づいて、各個人の特徴を相対的に決定するというシステムの枠組みにおいて、人間の通信関係から構築されるネットワークにおいて、近傍から広域に至るまで段階的に単語情報を収集し、ネットワーク距離の違いにより評価を行っている。

【０００５】

また、同様に特許文献２には、インターネット上のユーザ間で、質問者に対する適切な回答者を見つけ出し、仲介する方法が開示されている。この方法では、回答者会員は、前記利用者コンピュータを通じて前記ＷＷＷサーバーにアクセスし、回答者会員は、応答可能な質問に関する属性情報、受信可能な応答手段（電子メール、チャット、電話など）、

自らの知識提供の報酬対価を回答者データベースに登録し、質問者の質問に対してこの回答者データベースを検索することで適切な回答者を見つけている。

【０００６】

また、特許文献３には、電子掲示板やメーリングリストなどの電子コミュニティから取得した特徴データ及びそれに基づいて生成した分析結果を特徴データベースに蓄積し、ウェブサーバがクライアント装置から受け付けた検索条件に合致する特徴データ（分析結果を含む）に関連するコミュニティの参照情報をクライアント装置に提供するコミュニティ検索システムが開示されている。

【０００７】

【特許文献１】特開２０００－０７６３０４号公報

【特許文献２】特開２００２－０４９７８６号公報

【特許文献３】特開２００２－２６９１１１号公報

【発明の開示】

【発明が解決しようとする課題】

【０００８】

近年、電子メールはコミュニケーション手段として非常に重要な地位を占めるようになってきている。そして、電子メールのやりとりにより情報交換のためのコミュニティが形成されている場合も少なくない。しかしながら、電子メールのやりとりによるコミュニティは、電子メールの送信、転送、返信といった個々の操作から結果として構成されるもので、電子掲示板やメーリングリストの場合と異なり、コミュニティを構成する集団やコミュニティの場は明示的には存在していない。このように明示的には見えていないが潜在的には存在するコミュニティを目に見える形に顕在化できれば、コミュニティの形成や成長に非常に役立つものと期待できる。ところが、そのような観点の技術は従来ほとんど提案されてきていない。

【０００９】

例えば、特許文献１は各個人の特徴を分析するためのものであり、特許文献２は質問者に対して適切な回答者を提示するものであり、特許文献３は既存のコミュニティの中から検索条件に合うものを求めるものであって、いずれもコミュニティを形成したり、潜在的に形成されているコミュニティを顕在化するものではない。

【００１０】

本発明は、潜在的に形成されているコミュニティを顕在化させるための手段を提供する。

【課題を解決するための手段】

【００１１】

本発明は、コンピュータシステムを、ユーザ間をやりとりされる電子メールを監視して、ユーザから別のユーザへと転送又は返信される電子メールを検出するメール監視手段、前記メール監視手段が検出した転送又は返信の電子メールの情報に基づき、電子メールを転送する関係にあるユーザ群を１つのコミュニティと認識し、該コミュニティを構成するユーザ群の情報を含んだコミュニティ情報を作成するコミュニティ認識手段、として機能させるためのプログラムを提供する。

【００１２】

本発明の好適な態様では、前記コミュニティ認識手段は、転送又は返信された電子メールが各ユーザ間を通った回数をそれぞれ計数し、その計数値が所定の閾値以上となったユーザ間の連結範囲を１つのコミュニティと認識する。

【００１３】

ここで「ユーザ間」とは、２人のユーザの間の電子メール転送のパスのことである。

【００１４】

本発明の別の好適な態様では、前記コンピュータシステムを更に、前記メール監視手段で検出された転送又は返信の電子メールの情報に基づき、該転送又は返信の電子メールが由来する最初の電子メールの重要性指標値を求める重要性判定手段、として機能させると

共に、前記コミュニティ認識手段は、求められた前記最初の電子メールの重要性指標値を該最初の電子メールの発信者ごとに集計することにより各ユーザの重要情報発信スコアを計算し、該重要情報発信スコアの値に基づき前記コミュニティに含まれるユーザの中から１以上のキーパーソンを特定し、該キーパーソンの情報を含んだ前記コミュニティ情報を作成する、ことを特徴とするプログラムを提供する。

【００１５】

更に別の好適な態様では、前記コンピュータシステムを、更に、前記コミュニティ認識手段が作成したコミュニティごとに、該コミュニティに属するユーザ間での情報交換のためのウェブページを自動生成するウェブページ自動生成手段、前記コミュニティ認識手段が作成したコミュニティのキーパーソンに対し、該コミュニティに属するユーザ間での情報交換のためのウェブページの管理を依頼するための通知を行う管理依頼手段、として機能させるプログラムを提供する。

【発明を実施するための最良の形態】

【００１６】

以下、図面を参照して、本発明を実施するための最良の形態（以下「実施形態」という）を説明する。

【００１７】

まず、図１を参照して、本発明に係るコミュニティ形成装置が設けられたネットワークシステムの概要を説明する。

【００１８】

図１において、ある組織（例えば企業）に設けられたＬＡＮ(Local Area Network)１００は、ファイアウォール１０５を介してインターネット２００に接続されている。ＬＡＮ１００上には、各ユーザが使用するパーソナルコンピュータ（ＰＣと略す）１１０や、それらＰＣ１１０等に対して各種の情報処理サービスを提供するサーバ１２０が接続されている。この例では、ＬＡＮ１００上のサーバの中には、ＬＡＮ１００やインターネット２００上のユーザにウェブページを提供するウェブサーバ１３０や、ＬＡＮ１００上のＰＣ１１０を使用するユーザに対して電子メールの送受信サービスを提供するメールサーバ１４０が存在する。

【００１９】

このＬＡＮ１００上に、本発明に係るコミュニティ形成装置１５０が設置される。大略的に言えば、このコミュニティ形成装置１５０は、ＬＡＮ１００上のＰＣ１１０を使用するユーザがＬＡＮ１００やインターネット２００上のユーザとやりとりする電子メールを監視し、電子メールの転送関係を分析することで、電子メールのやりとりにより潜在的に形成されているコミュニティを求める（コミュニティの顕在化）。このようなコミュニティ顕在化の処理を、以下では「コミュニティ形成」と呼ぶことにする。

【００２０】

コミュニティ形成装置１５０は、メール監視部１５２，分析部１５４及びサービス登録部１５６を備える。

【００２１】

メール監視部１５２は、ＬＡＮ１００上のユーザがやりとりする電子メールを監視し、それら電子メールからコミュニティ形成に用いる情報を抽出する機能モジュールである。

【００２２】

本実施形態でコミュニティ形成に用いる情報の代表的なものに、電子メールの転送関係の情報がある。この転送関係の情報を得るための１つの方法として、監視により得た電子メールのヘッダにおけるResentフィールドのデータを分析するという方法がある。電子メールクライアントソフトウエアによっては、受信した電子メールを転送する場合に、その転送するメールのヘッダ中にその転送元（すなわち当該転送者自信）のメールアドレスを示したResent-From:フィールドを組み込むものがある。また、転送先のアドレスをResent-To:フィールドやResent-Cc:フィールドとしてヘッダ中に組み込むものもある。RFC2822によれば、このようなResent関係のフィールド群を実装したメールクライアントは、受け

取った電子メールを転送する場合、転送の電子メールを作成してそれを送信するわけであるが、元のメール（「受け取ったメール」）のヘッダの先頭に今回の転送（再送）を示すResent関係のフィールドを追加したものを、該転送のメールのヘッダとする。このため、同じ本文の電子メールが次から次へと転送された場合、その転送の経路の情報が当該電子メールのヘッダにはResent関係のフィールド群がその転送順序の逆順に上から並ぶことになる。したがって、メール監視部１５２は、監視により取得した電子メールのヘッダ中のResent関係のフィールド群を調べることで、その電子メールが経てきた転送の経路を求めることができる。

【００２３】

ただし、Resent関係のフィールドを実装したメールクライアントは少ない。そこで、別の方法として、電子メール中の引用箇所の記述を解析することで転送関係を求める方法がある。より具体的には、メール転送機能を有する一般的なメールクライアントは、受け取った電子メールに対する転送の電子メールを作成する場合に、転送の電子メールの本文に対し元の「受け取った電子メール」を添付する機能を備える。また、このとき、添付する「受け取った電子メール」の内容として、該電子メールの本文だけでなく、メールヘッダ乃至その一部（例えば発信者のアドレスや発信日時、宛先のアドレス、件名など）を含めるものも多い。また、このようなメールクライアントは一般に、添付した部分の先頭に「-----original message-----」等といった区切りの記述を入れたり、添付部分の各行の行頭に「>」などの引用記号を追加したり（両方を行う場合も多い）することで、添付部分を明示する機能を持っている。したがって、何回もの転送を受けた電子メールの本文のうちの添付部分には、転送順序の逆順に上から、各々の転送の際の発信元と宛先の情報が並ぶことになる。個々の転送の際の発信元や宛先の情報は、添付の区切りの記述の直後を探すことで見つけることができる。また、電子メール本文の添付部分のうち転送を何回も受けた部分の各行頭には、転送を受けた回数と同じだけの引用記号が並ぶので、引用記号の数を調べることで個々の転送に係る部分を弁別することができる。そして、その個々の転送に係る部分の先頭に、各々転送の際の発信元や宛先の情報を見つけることができる。このように、電子メール本文の添付部分の情報を解析することで、当該電子メールがたどってきた転送の経路を求めることができる。

【００２４】

なお、この手法では、電子メール本文から転送関係の情報を求めるのに、区切りの記述又は引用記号を見分けなければならない。ただし、区切りの記述や引用記号としてどのようなものを用いるかは、メールクライアントによって異なることもある。また、メールクライアントによっては、区切りの記述や引用記号の候補の中からユーザが好むものを選択させるものもある。したがって、このようなバリエーションに対応するためには、使用される可能性のある区切りの記述や引用記号の情報をメール監視部１５２に登録しておき、メール監視部１５２がその情報を参照しながら区切りや引用記号を判別するようにすればよい。

【００２５】

以上、メール監視部１５２が電子メール中から抽出する情報としてメール転送に関する情報を説明したが、この他にも、コミュニティ分析に利用する各種の情報を抽出することができる。例えば、該電子メールの件名(Subjectフィールド）や送信日時(Dateフィールド）、宛先(Toフィールド）、控えの送信先(Ccフィールド）などといったヘッダ内の情報や、当該電子メールの本文を抽出して利用することもできる。また、その電子メールの本文において、添付部分の先頭部分には、転送の系列において当該電子メールの１つ前の電子メールのヘッダが含まれるので、そのヘッダから送信日時の情報を得ることができる。このとき得られる送信日時と、当該電子メール自体の送信日時の差分から、当該電子メールの転送までに要した転送時間を求めることもできる（詳細は後述）。

【００２６】

電子メールのデータからどのような情報を抽出するかは、コミュニティ形成のために利用する具体的な方法によりけりであるが、ここでは一例として、図２に示すように、転送

経路情報、件名、電子メールの本文、転送元送信日時、送信日時を抽出する場合を例示する。このうち、転送経路情報は、上述のようにResentフィールドやメール本文の添付部分の解析により求めることができる。この例では転送経路情報の内容を「Ａ→Ｂ→Ｃ→Ｄ」等と記述しているが、これは当該電子メールがユーザＡ，Ｂ，Ｃ，Ｄの順に転送されたものであることを示す便宜的な記述であり、実際には転送経路情報はそれら各ユーザＡ，Ｂ，Ｃ，Ｄの識別情報（例えば電子メールアドレス）を転送の順序に従って並べたリストである。この転送経路の最後のユーザが当該メールの宛先であり、その一つ前のユーザが当該メールの発信者である。転送元送信日時は、当該電子メールの本文の添付部分の先頭部分に示されている送信日時（すなわち転送系列に置いて当該電子メールの１つ前の電子メールの送信日時）である。この例では、メール監視部１５２は、ＬＡＮ１００上を流れる各電子メールのデータから、そのような各項目の情報を抽出し、図２に示すようなデータ構造のデータベースに登録する。このデータベースでは、各行がそれぞれ１つの電子メールから抽出したデータ項目からなる転送情報レコードである。各転送情報レコードは、当該電子メールを検出した時刻の順が分かるような形態で格納される（例えば図２の例では、データベースの先頭から古い順に並んでいる）。

【００２７】

従来より、ネットワーク上を流れる情報から電子メール（例えばＳＭＴＰパケットの形のデータ）をフィルタリングし、その中から電子メール監視に必要な情報を抽出するツールが存在する（例えば、http://www.hammock.jp/mailwatcher/に示されるMail Watcher（登録商標）など）。この種の電子メール監視ツールは、（１）ネットワーク上を流れる通信パケットからＳＭＴＰパケットだけをフィルタリングし、電子メールとして抽出する機能や、（２）抽出した各電子メールのうちユーザが指定した検索条件（例えばキーワード）に合致するもののみを抽出する機能、あるいは（３）抽出した電子メールから送信日時や宛名、控えの送信先(Cc:)、件名等といったヘッダの項目を抽出する機能、を備えている。本実施形態のメール監視部１５２は、このような既存の電子メール監視ツールの機能に、電子メールから転送関係の情報を抽出する機能を追加することで実現できる。

【００２８】

再び図１に戻り、コミュニティ形成装置１５０の分析部１５４は、メール監視部１５２の監視により作成されたデータベースに基づき、メールをやりとりによりユーザ間に潜在的に形成されているコミュニティを求める（コミュニティ形成）。このコミュニティ形成の処理手順の一例を、図３を参照して説明する。

【００２９】

図３の手順は、例えばコミュニティ形成を管理する管理者が明示的にコミュニティ形成処理の実行を指示した場合や、例えば１ヶ月ごとなどといった所定の条件によって定まるコミュニティ更新タイミングが到来した場合に、実行される。そして、その時点で形成されているデータベースの情報に基づき、コミュニティ形成を行う。

【００３０】

この手順では、データベース（図２参照）に未処理の転送情報レコードが残っているかどうかを検査し（Ｓ１０）、残っていれば、そのうちもっとも古い転送情報レコード（すなわち、該転送情報が由来する電子メールの検出日時がもっとも古いもの）を１つ取り出す（Ｓ１２）。

【００３１】

そして、取り出した転送情報中の転送経路情報を調べ、該転送経路にマッチ（適合）するツリーがあるかどうかを判定する（Ｓ１４）。ここでの「ツリー」とは、１つの電子メール（最初（オリジナル）の電子メール）の転送系列を特定するために用いるデータであり、その最初の電子メールが次々と、時には枝分かれして転送されていく経路がツリー構造のようになるので、このように名付けた。すなわち、各ユーザがノードとなり、ユーザ間を結ぶメールの転送関係がエッジとなるツリーである。作成した各ツリーは、図示しない作業用の記憶領域に格納する。最初の転送情報レコードを取り出した時点では、作業用記憶領域にはツリーは１つも格納されていないので、Ｓ１４の判定結果は否定（Ｎ）とな

り、分析部１５４はこの転送情報レコードの転送経路に対応するツリーを新たに作成し、作業用記憶領域に格納する（Ｓ１６）。例えば、ユーザＢがユーザＡから受け取ったメールをユーザＣに転送した場合、その転送のメールに対応する転送情報レコードを処理すると、図４に示すように「Ａ→Ｂ→Ｃ」のツリーができる。そして、Ｓ１０に戻って次の転送情報を処理する際には、作業用記憶領域にはツリーが存在するので、Ｓ１４でのマッチングが行われる。

【００３２】

このＳ１４において、転送経路にマッチするツリーとは、該ツリーにおけるルート（根。すなわち最初のメールの発信者）から他のいずれかのノードまでのパスが、その転送経路に含まれるようなツリーである。すなわち、このマッチング処理では、転送情報レコードから取り出した転送経路を、該経路の最初のユーザから順に、作業用記憶領域に格納されている各ツリーのルートから下っていくパスと比較していき、もっとも深いところまで一致するツリーを、マッチするツリーとして求める。もっとも、異なる電子メールが同じ転送経路を通ることも多いので、これらを弁別するには、単なる経路のマッチングではなく、メール本文のマッチングを用いればよい。メール本文のマッチングは、もっとも簡便には、メール本文中に含まれる「転送系列の最初のメール」の比較により行うことができる。このためには、各ツリーのルートに、当該ツリーの「最初の電子メール」のデータをリンクしておく。そして、それらツリーの中から、転送情報レコードから取り出した転送経路の最初のユーザをルートに持つツリーを抽出し、抽出した各ツリーのルートにリンクされた「最初の電子メール」を調べ、転送情報レコードに含まれるメール本文中の「最初の電子メール」の部分と一致するツリーを特定すればよい。なお、メール本文中の「最初の電子メール」の部分は、転送経路の情報を求めるための電子メールの解析の際に特定できるので、これを転送情報レコードに登録しておくことも好適である。一般に、ヘッダと本文を含む内容全体が同じ電子メールが独立に作成されることは稀なので、「最初の電子メール」を調べることで目的のツリーを特定できる。ただし「最初の電子メール」だけでは特定できない場合を考慮するなら、ツリーの各ノードに、そのノードに対応する電子メール（すなわち、当該ツリーに対応する転送の経路上でそのノードのユーザが送信した電子メール）を対応づけて記憶しておき、ルートから順に転送経路にマッチするノードをたどっていく際、そのノードに対応づけられた電子メールを転送情報レコード中のメール本文と比較すればよい。

【００３３】

このようにして転送情報レコードの転送経路にマッチするツリーが特定されると、その転送経路をツリーに反映させる（Ｓ１８）。すなわち、Ｓ１６で特定したツリーの中の、転送経路とマッチしたパスの末端のノードに対し、その転送経路とそのパスの差分をマージする。例えば、図４の例において、作業用記憶領域内に「Ａ→Ｂ→Ｃ」のツリーが格納されているときに、「Ａ→Ｂ→Ｃ→Ｄ」の転送経路を持つ転送情報レコードを取得した場合は、後者から前者を引いた差分の「Ｃ→Ｄ」の経路をそのツリーに付け加える。

【００３４】

以上のような処理を、データベース中のすべての転送情報レコードについて繰り返し実行する（Ｓ１０）。最後の転送情報レコードが処理し終わった時には、作業用記憶領域には、１以上のツリーが格納されている。図５に、ユーザＡが発信したメールを起点とする転送のツリーを例示する。個々の「最初の電子メール」に対応して、このようなツリーが形成されるのである。

【００３５】

図３の手順では、これら各ツリーを、それぞれ１つのコミュニティと認識する（Ｓ２０）。これは、１つの電子メールの転送を受けたユーザ群（及びその１つの電子メールの発信者）を１つのコミュニティとみなすものである。ユーザは、自分が受け取った電子メールを他のユーザに知らせる必要があると考えた場合に転送を行うので、このように１つの電子メールの転送先からなる集団は、１つの情報（最初の電子メール）に対し何らかの興味を持っている人々の集団とみなすことができる。したがって、この集団をコミュニティ

とするのである。

【００３６】

以上、コミュニティ形成処理の一例を示したが、この処理では、「最初の電子メール」１つずつにつき１つのコミュニティを作成するので、余り意味のないコミュニティができたり、コミュニティの数が膨大なものになってかえって不便になったりすることも考えられる。そこで、次に、複数の電子メールの転送関係をマージしてコミュニティを形成する処理の例を説明する。この処理の手順を図６に示す。図６では、図３の手順と同様の処理を行うステップには、同一符号を付して説明を省略する。

【００３７】

この手順では、メール監視部１５２が作成したデータベースのすべての転送情報レコードを処理してツリー群を作成するところまで（Ｓ１０～Ｓ１８）は、図３の手順と同じである。図３の手順ではこの後個々のツリーをそれぞれコミュニティとしたが、図６の手順では、それら各ツリーにおけるユーザ間のメール転送回数を集計する（Ｓ２２）。すなわち、例えば、Ｓ１０～Ｓ１８の処理により図４のツリーと図５のツリーが別々に作業用記憶領域上に形成された場合、ユーザＡ－Ｂ間のパス及びＢ－Ｃ間のパスはそれぞれ２回、Ａ－Ｅ間やＡ－Ｆ間、Ｃ－Ｄ間、Ｃ－Ｇ間のパスはそれぞれ１回、電子メールが転送されたことが分かる。このようにユーザ間ごとに、そのユーザ間を含んだツリーが幾つあるかを集計するのである。集計データは、例えば図７に示すように、ユーザ２人のペア（ユーザ間パス）ごとに、両者間での転送の回数に応じたポイントを記録したものとなる。

【００３８】

この集計が終わると、集計データ中でポイントが所定の閾値以上となるユーザ間のパスを抽出し、抽出したパスの連結範囲（連結成分）を求める（Ｓ２４）。所定の閾値以上となるユーザ間パスを抽出するのは、突発的な転送関係を排除して、ある程度恒常的にメールの転送を行っているペアだけを抽出するためである。そして、抽出されたパス群の中で一方のユーザが一致するものを順にマージしていく処理を、これ以上マージするものがなくなるまで繰り返すことで、１つの連結成分が求められる。連結成分が求められた後、まだ集計データ中に閾値以上のポイントを持つユーザ間パスが存在すれば、同様の処理を繰り返して別の連結成分を求める。これを集計データ中から、閾値以上のポイントを持つ未処理のパスがなくなるまで繰り返す。これにより、いくつかの連結成分が形成されることになる。例えば図８には、３つ連結成分が形成された例を示す。

【００３９】

そして、分析部１５４は、それら求めた各連結成分を、それぞれ１つのコミュニティと認識する（Ｓ２６）。すなわち、１つの連結成分に属するユーザ群を１つのコミュニティとするのである。これにより、ある一定回数以上メールを転送しあった関係のユーザ間を結んだ関係を１つのコミュニティとすることができる。なお、このように求めた連結成分のうち、３ノードのみからなるものは、コミュニティと呼ぶには小さい、孤立的な転送関係と考えることもできるので、このようなものはコミュニティには選ばないようにすることもできる。

【００４０】

以上のような処理により、それぞれが複数のユーザを含んだコミュニティがいくつか形成されることになる。形成されたコミュニティは、当該コミュニティを構成するユーザの集合（例えばそれら各ユーザの電子メールアドレスのリスト）で表現することができる。

【００４１】

このように形成されたコミュニティの情報は、それ自体だけでも、ユーザ間の関係の分析等に有益なものであるが、本実施形態は、更にこのコミュニティの情報を、当該コミュニティを更に成長させるために役立てる仕組みを備えている。それが、図１に示したサービス登録部１５６である。

【００４２】

サービス登録部１５６は、形成されたコミュニティに対するサービスを、対応するサーバに対して登録する処理を行う。コミュニティに対応するサービスの一つに、コミュニテ

ィのメンバが情報交換を行うためのウェブページの提供がある。この場合のサービス登録部１５６の処理手順を図９に示す。

【００４３】

この手順では、サービス登録部１５６は、分析部１５４が作成したコミュニティ群のなかから１つのコミュニティを取得し（Ｓ３０）、そのコミュニティ用のウェブページ群をウェブサーバ１３０上に作成し、公開可能な状態とする（Ｓ３２）。このウェブページ群は、例えばコミュニティのメンバ間の情報交換のための電子掲示板を含めることができる。また、このウェブページ群には、コミュニティ形成の基礎データとなった電子メール群にて交わされた議論の内容を示したページを加えることもできる。このようなページとしては、例えば、該コミュニティの基礎となった転送関係のツリーに属する各電子メールを、スレッド形式に編集して配列したものを用いることができる。

【００４４】

このように作成するウェブページは、定型的なものなので、コミュニティ形成装置１５０内に登録されているウェブページのテンプレートデータ等に基づきサービス登録部１５６が自動生成することができる。そして、サービス登録部１５６は、このウェブページの開設を知らせる通知を、当該コミュニティの各メンバに対して、例えば電子メールで送信する（Ｓ３４）。

【００４５】

本実施形態では、電子メールのやりとりに基づきコミュニティを形成しているので、コミュニティのメンバの電子メールアドレスは既知である。通知の電子メールに、当該コミュニティ用のウェブページ群のトップページ等のＵＲＬを記述しておけば、これを受け取った人は、これを用いてアクセスできる。また、このコミュニティ用のウェブページ群の公開を、コミュニティのメンバのみに制限するべくアクセス制限を掛けることも可能である。これには例えば次のような仕組みを用いることができる。すなわち、ウェブサーバ１３０に対し、各ユーザの認証情報（パスワードなど）や電子メールアドレスを登録しておくとともに、サービス登録部１５６から各コミュニティの構成メンバの情報（例えば各メンバのメールアドレスのリスト）を登録しておく。そして、ウェブサーバ１３０は、ユーザがコミュニティのトップページにログインした際に、メールアドレス及び認証情報の入力を求め、これに応じ入力されたメールアドレスに基づきそのユーザが当該コミュニティに所属するかどうかを判定し、所属すると判定された場合は、更に入力された認証情報が正しいものかどうかを検証し、正しいものであった場合にログインを認める。

【００４６】

サービス登録部１５６は、このようなコミュニティ用ウェブページの開設及びその通知を、すべてのコミュニティについて繰り返す（Ｓ３６）。

【００４７】

また、形成したコミュニティに関して提供するサービスの別の例として、メーリングリスト拡張サービスがある。これは、メーリングリストサービスを行っているサーバがネットワーク上に存在しているという状況の下で、そのサーバに登録されているメーリングリストを、コミュニティの情報により拡張するものである。この例では、図１におけるメールサーバ１４０にメーリングリストの情報が登録されているものとする。

【００４８】

この場合のサービス登録部１５６の処理手順は図１０に示すようなものとなる。この手順では、サービス登録部１５６は、分析部１５４が形成したコミュニティ群の中から１つのコミュニティを取り出し（Ｓ４０）、そのコミュニティに属するユーザの集合を、メールサーバ１４０に登録された各メーリングリストのメンバの集合と比較し、そのコミュニティに包含されるメーリングリスト（すなわち、そのメーリングリストのメンバは、すべてそのコミュニティに属する）を探し（Ｓ４２）、そのようなメーリングリストが見つかれば、コミュニティに属するユーザ群をメンバとした拡張版のメーリングリストを作成し、メールサーバ１４０に登録する（Ｓ４４）。例えば、図１１に示すように、｛Ａ，Ｂ，Ｄ，Ｅ，Ｆ，Ｉ｝の６人のユーザが登録された「開発グループリスト」という名称のメー

リングリスト２００がメールサーバ１４０に登録されている場合に、分析部１５４により｛Ａ，Ｂ，Ｃ，Ｄ，Ｅ，Ｆ，Ｇ，Ｉ，Ｊ，Ｋ，Ｌ｝の１１人からなるコミュニティが形成された場合を考える。このコミュニティは「開発グループリスト」を包含しているので、サービス登録部１５６は、「開発グループリスト」とユーザ｛Ｃ，Ｇ，Ｊ，Ｋ，Ｌ｝とをメンバとした拡張メーリングリスト２１０を作成してサーバ１４０に登録する。この場合、拡張メーリングリスト２１０の名称は、元のメーリングリストとの関係が明確に分かるよう、元のメーリングリストの名称に対して「＋」という文字を付加したり、「拡張版」という文字列を付加するなどの方法で自動生成すればよい。また、このようにコミュニティに対応する拡張メーリングリストを登録した場合、サービス登録部１５６は、コミュニティのメンバに対してその拡張メーリングリストの宛先を知らせる電子メールを送信するようにすることもできる。

【００４９】

サービス登録部１５６は、このようなメーリングリスト拡張のための処理を、すべてのコミュニティについて繰り返す（Ｓ４６）。

【００５０】

このようなメーリングリスト拡張サービスによれば、メーリングリストを用いたコミュニケーションの広がりに追従して動的にメーリングリストを拡張していくことができる。また、あるユーザがメーリングリスト宛にメールを発信した後、そのメールの内容に修正の必要が生じた場合、そのメーリングリストの拡張メーリングリストに対して修正内容を示したメールを送信すれば、元のメールを受け取った人全員に修正内容を伝えることができる。

【００５１】

以上、本発明の好適な実施の形態について説明した。本実施形態によれば、メールの転送関係により潜在的に形成されている情報共有・交換の場（コミュニティ）を自動検出することができ、求めたコミュニティの情報を用い、そのコミュニティのために各種サービスを提供することができる。特に電子メールの「転送」の情報を基礎にすることで、２者の一方から他方への単発的な情報の送信の関係を基礎とするよりも、もっと情報共有の意味合いが強いコミュニティを形成することができる。

【００５２】

また、本実施形態によれば、今まで電子メールを直接やりとりする仲ではなかった人同士が、電子メールの転送関係という連鎖的な関係により１つのコミュニティにまとめられるので、コミュニティの各メンバは、コミュニティ用ウェブページを利用することにより、直接の知り合い関係の間の議論では得られなかった新しい知識や情報を得ることができる。これは創造性を高めるための一助となるものと期待できる。

【００５３】

このように、本実施形態のコミュニティ形成装置１５０の利用形態としては、例えば、この装置１５０を企業や企業グループ等の社内ネットワークに設け、社内での電子メールのやりとりに基づきコミュニティを形成し、これに基づく各種サービスを提供するという形態がある。この場合、コミュニティ形成装置１５０は、企業内の情報交換や人材交流を活発にする一種の企業活性化ツールとして利用することができる。

【００５４】

なお、以上では電子メールの「転送」に着目したが、電子メールの「返信」が行われた場合も、「転送」の場合と同様、単発的なメール送信の場合よりも強い情報共有の関係があるものと考えることができる。そこで、メール監視により、転送の電子メールと同様に返信の電子メールも抽出し、ユーザ間の返信のパスも転送のパスと同様に扱うことで、上述と同様のツリー（この場合は厳密にはツリーではなく、更に一般的な「グラフ」になるが、便宜上こう呼ぶ）を作成することができる。ツリーが作成できれば、上述の手法でコミュニティを形成できる。また、図６の処理手順において、更に返信のメールも考慮する場合は、Ｓ２２において、返信のメール１つにつきその返信のパスに所定のポイントを加算することで、返信パスの関係を強調することもできる。なお、返信のメールかどうかは

、ヘッダ中のIn-Reply-Toフィールドにより判別できる。

【００５５】

以上では、ユーザ間でやりとりされる電子メールすべてを対象に分析をしてコミュニティを求めたが、この他にも、例えば特定の条件に合致する電子メール群からコミュニティを形成する構成とすることもできる。例えば、メール監視部１５２によりあるテーマについて語っている電子メール群を抽出し、それら電子メール群における転送（或いは返信）の情報からコミュニティを形成すれば、そのテーマに関係している可能性が高いコミュニティを求めることができる。これには、例えば、テーマに関するキーワードをメール監視部１５２に入力し、メール監視部１５２がそのキーワードを含むメールのみに絞り込んで抽出するようにすればよい。すなわち、メール監視部１５２は、指定されたキーワードを含み、かつ転送（乃至返信）された電子メールを抽出し、その情報をデータベースに登録するのである。その後の分析部１５４等の処理は、上記の例と同様でよい。キーワードは、件名や本文など、電子メールの構成要素単位で設定することもできる。このようなキーワードによるメールフィルタリング機能は、既存の電子メール管理ツールと同様のものを用いれば実現できる。

【００５６】

このような構成によれば、「コピー機」をキーワードに指定して図６のコミュニティ形成処理を行えば、「コピー機」に関する話題を取り上げているユーザのコミュニティを求めることができる。また、このように求めた「コピー機」に関連するコミュニティにつき、例えば分析者が分析を進め、そのコミュニティのあるユーザに届いた電子メール（コミュニティ形成の基礎データとなった電子メールの一つである）を見た場合、元々の電子メールの他に「楽曲コピー」について触れた電子メールが添付されていたことを発見したとする。この話題は、元々の電子メールには含まれていなかった話題であり、電子メールを用いた議論の内容が広がっていることを意味する。そこで、『「コピー機」＆「楽曲コピー」』の２つのキーワードのＡＮＤ条件を検索条件に設定して電子メールのフィルタリングを行い、これにより抽出された電子メール群からコミュニティを形成すれば、このような広がった話題を議論しているコミュニティを求めることができる。このような検索条件による絞込は、メール監視部１５２により作成したデータベースのメール本文や件名（図２参照）などの各種の項目について行うことができる。

【００５７】

以上ではキーワードを用いる場合を例示したが、キーワード以外の検索条件で電子メールの絞込を行う場合も同様のことができる。

【００５８】

また以上では、コミュニティ形成や形成したコミュニティの情報を用いたサービスの例を説明したが、次にそのようなコミュニティを管理、成長させるためのキーパーソン（鍵となる重要人物）を自動判別する機能を備えた変形例について説明する。

【００５９】

この変形例は、メール監視部１５２の処理については、上述の実施形態と同様でよい。分析部１５４の処理手順の例を図１２に示す。この手順のうち、図６に示した処理手順と同様のステップには同じ符号を付して説明を省略する。

【００６０】

この手順で特徴的なのは、Ｓ１６又はＳ１８の後にＳ５０及びＳ５２、Ｓ２６の後にＳ５４の各ステップを設けたことである。Ｓ５０では、Ｓ１２で取得した転送情報の「送信時刻」から「転送元送信時刻」（共に図２参照）を引くことで、当該転送情報に対応する転送の電子メールを発したユーザがその転送に要した時間（転送時間と呼ぶ）を計算する。この変形例では、転送時間が短いほどその電子メールの重要性が高いと考え、その電子メールの大本となった最初の電子メールに重要な情報が示されているものと判断する。そして、重要な情報を発信する人ほど、コミュニティを引っ張っていくのにふさわしいと考えられるので、ここでは、転送時間の短さに応じたポイントを、当該転送メールの元になった最初のメールの発信者のポイントに加算することとした（Ｓ５２）。例えば転送時間

が３０分以内ならポイント「１」、３０分を超える場合は「０」というような、転送時間からポイントを求める規則やテーブルを作成し、分析部１５４に登録しておけばよい。また、分析部１５４は、図１３に示すように、ユーザごとのポイントを集計するテーブルを用意し、そこに監視した各電子メールから求められるポイントを集計していく。このようにしてデータベースのすべての情報についてＳ１０～Ｓ５２の処理が終わると、図６の手順と同様にしてコミュニティを形成し（Ｓ２２～２６）、更にユーザごとのポイント集計テーブルを参照して、各コミュニティのキーパーソンを判定する（Ｓ５４）。このキーパーソン判定では、コミュニティの各メンバのポイントを集計テーブルから求め、ポイントが上位の所定人数（この所定人数は、分析部１５４に予め登録しておく）の人をキーパーソンと判定する。このように求めたキーパーソンの情報は、例えば、コミュニティのメンバーに対して電子メール等で通知することもできる。また、キーパーソンをコミュニティ用のウェブページやその中の電子掲示板等の運営を管理する管理人に指名することで、ウェブページ運営によりコミュニティの更なる発展を目論むことができる。この場合、図９の手順で、コミュニティ用ウェブページの開設通知を行う際に、キーパーソンに対しては、管理人に指名した旨を示すメッセージも併せて通知し、ウェブサーバ１３０に対しては、そのキーパーソンに当該ウェブページの管理者権限が与えるための権限設定を行う。

【００６１】

この例では、コミュニティのキーパーソンを求めるための指標として、電子メールの転送時間を用いたが、これは一例に過ぎない。例えば、多くの人に対して転送されたメールは、重要なメールであると考えることができるので、ユーザごとに、その人が最初に発した電子メールが何人に転送されたかを集計し、その人数によりユーザの重要性（キーパーソン適格性）を判定してキーパーソンを決定してもよい。また、よく情報を発信するユーザほど、コミュニティの中での重要性が高いという見方ができるので、電子メールの発信回数（転送や返信のメールは除く）を集計し、それによりユーザの重要性を判断してキーパーソンを決定することもできる。もちろん、それら転送時間、転送頻度（転送人数）、発信回数などといった各種指標を総合評価した上で、キーパーソンを決定する処理を採用することもできる。

【００６２】

また、以上の例では、メール監視部１５２が、ネットワーク上を流れる電子メールを監視して、図２のようなデータベースを作成し、このデータベースを元に分析部１５４がコミュニティを形成したが、このようなシステム構成は一例に過ぎない。例えば別の例として次のようなものが考えられる。

【００６３】

この例では、メール監視部１５２は、監視により得た電子メールから図２のようなデータベースを作成する代わりに、図７に例示したような集計テーブルを直接作成する。すなわち、メール監視部１５２は、図１４に示すように、ネットワーク上を流れる電子メールを検出すると（Ｓ６０）、その電子メールが転送（又は返信）されたものか否かを判定する（Ｓ６２）。この判定で、転送（又は返信）された電子メールと判定された場合、更にそれが一度目の転送であるかを判定する（Ｓ６４）。一度目の転送であれば、当該転送のメールの元となった最初のメールの発信者とその宛先（すなわち当該転送のメール送信者）との間のユーザ間パスにポイントを加算し（Ｓ６６）、更に当該転送のメールの送信者とその宛先との間のユーザ間パスに対しポイントを加算する（Ｓ６８）。また、Ｓ６４で、一度目の転送ではないと判定された場合、当該転送のメールの送信者とその宛先との間のユーザ間パスに対しポイントを加算する（Ｓ６８）。このような電子メールを検出するたびにこのような処理を繰り返すことで、図６の手順のＳ２２で作成されるのと同様の集計テーブルを作成することができる。

【００６４】

分析部１５４は、コミュニティ形成を実行する場合、図１５に示すようにこの集計テーブルを取得し（Ｓ７０）、以降、図６の手順と同様、所定閾値以上のポイントを持つユーザ間パスの連結範囲を求め（Ｓ７２）、求めた各連結範囲をそれぞれコミュニティとする

（Ｓ７４）。

【００６５】

以上に説明したコミュニティ形成装置１５０は、典型的には、コンピュータシステムに対し上記各機能モジュールの処理を記述したプログラムを実行させることにより実現される。

【図面の簡単な説明】

【００６６】

【図１】本発明に係るコミュニティ形成装置が設けられたネットワークシステムの概略構成を示す図である。

【図２】メール監視部が作成するデータベースのデータ内容の一例を示す図である。

【図３】コミュニティ形成処理の手順の一例を示すフローチャートである。

【図４】ツリーの一例を示す図である。

【図５】ツリーの別の一例を示す図である。

【図６】コミュニティ形成処理の手順の別の例を示すフローチャートである。

【図７】ユーザ間パスごとの転送回数のポイント集計結果のデータの一例を示す図である。

【図８】図６の処理のより形成された３つのコミュニティを例示する図である。

【図９】サービス登録部の処理の一例を示すフローチャートである。

【図１０】サービス登録部の処理の別の一例を示すフローチャートである。

【図１１】メーリングリスト拡張を説明するための図である。

【図１２】変形例における分析部の処理手順の例を示すフローチャートである。

【図１３】各ユーザのキーパーソン適格性のポイントの集計テーブルの例を示す図である。

【図１４】メール監視部の別の処理手順の例を示すフローチャートである。

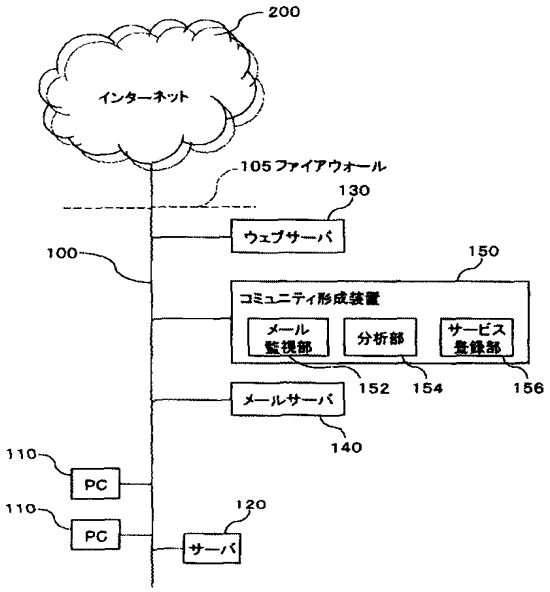
【図１５】分析部の別の処理手順の例を示すフローチャートである。

【符号の説明】

【００６７】

１００　ＬＡＮ、１１０　パーソナルコンピュータ、１２０　サーバ、１３０　ウェブサーバ、１４０　メールサーバ、１５０　コミュニティ形成装置、１５２　メール監視部、１５４　分析部、１５６　サービス登録部。

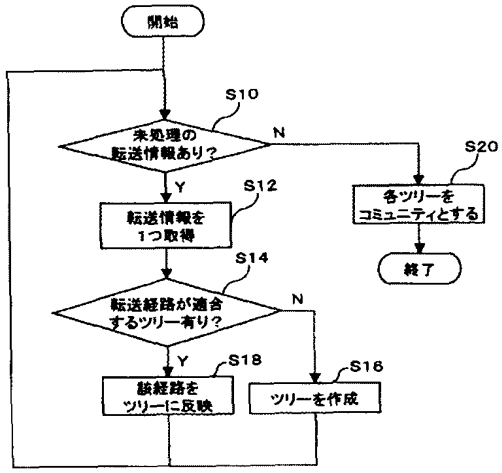
【図１】



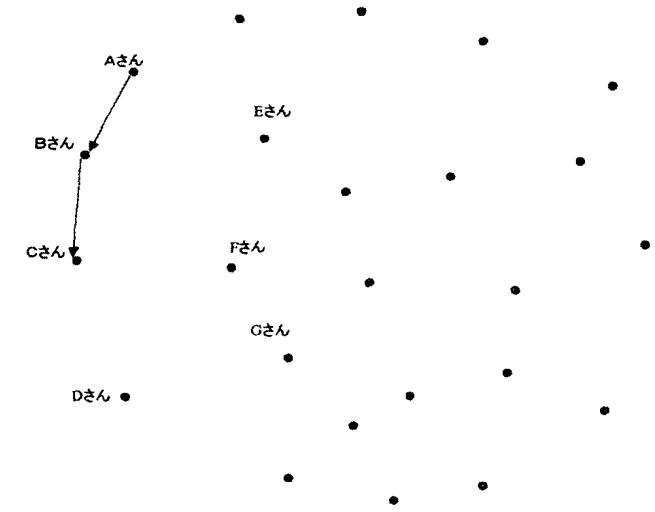
【図２】

転送経路情報	件名	メール本文	転送元送信日時	送信日時
A→B→C	.....	.....	Mon Feb 23 19:41:29 2004	Mon Feb 23 19:45:33 2004
B→F→D	.....	.....	Mon Feb 23 19:00:03 2004	Mon Feb 23 19:45:52 2004
A→B→C→D	.....	.....	Mon Feb 23 19:45:33 2004	Mon Feb 23 19:53:08 2004
⋮	⋮	⋮	⋮	⋮

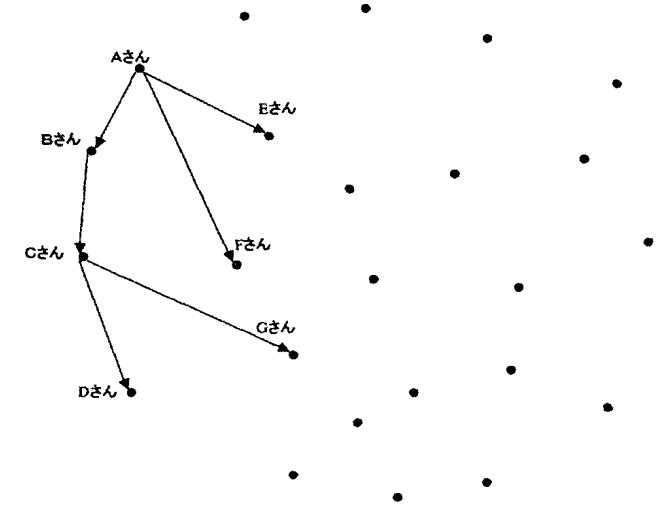
【図３】



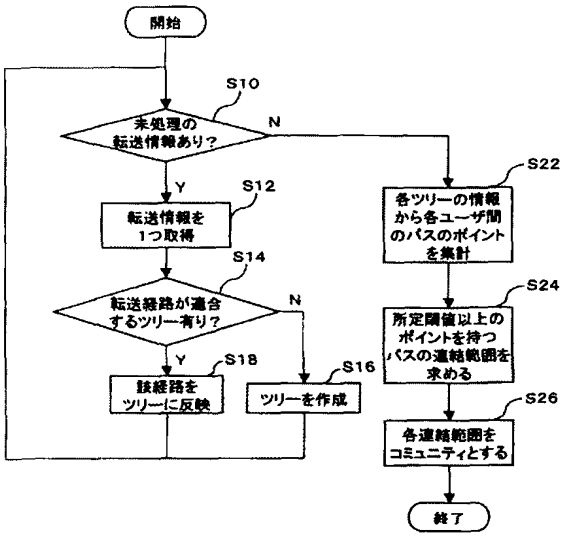
【図４】



【図５】



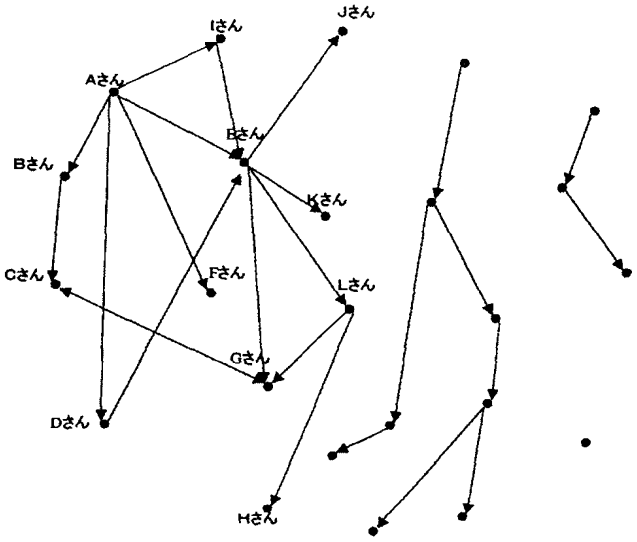
【図６】



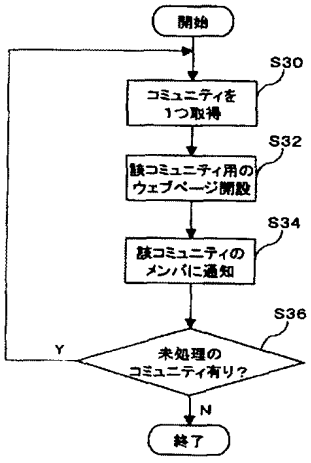
【図７】

ユーザ	ユーザ	ポイント
A	B	8
A	C	1
⋮	⋮	⋮

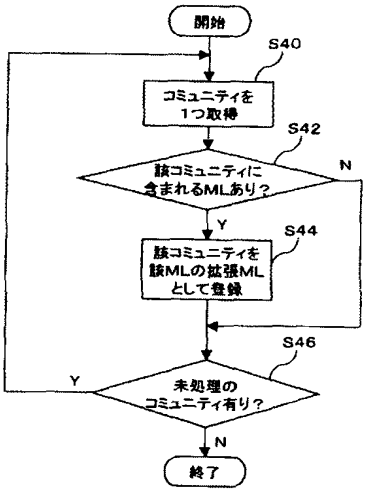
【図８】



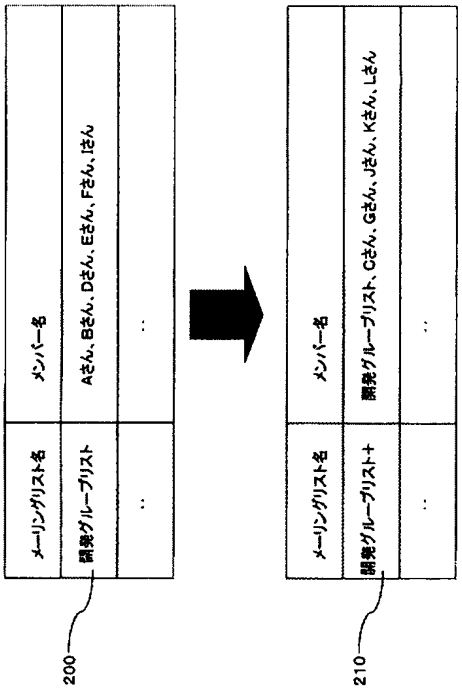
【図９】



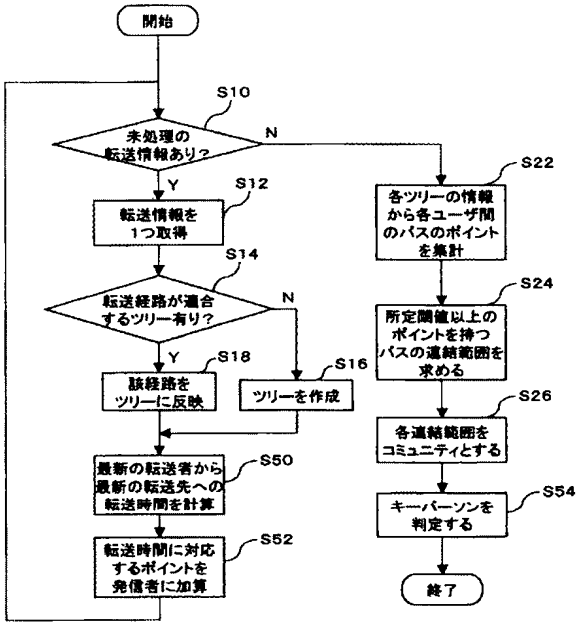
【図１０】



【図１１】



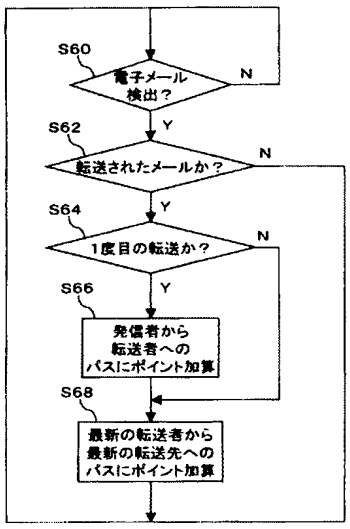
【図１２】



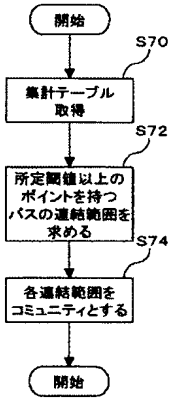
【図１３】

ユーザ	ポイント
A	7
B	3
……	……

【図１４】



【図１５】



フロントページの続き

(72)発明者 桂林 浩
神奈川県川崎市高津区坂戸３丁目２番１号 ＫＳＰ Ｒ＆Ｄ ビジネスパークビル 富士ゼロックス株式会社内
(72)発明者 竹尾 信行
神奈川県川崎市高津区坂戸３丁目２番１号 ＫＳＰ Ｒ＆Ｄ ビジネスパークビル 富士ゼロックス株式会社内
(72)発明者 佐々木 隆直
神奈川県川崎市高津区坂戸３丁目２番１号 ＫＳＰ Ｒ＆Ｄ ビジネスパークビル 富士ゼロックス株式会社内

Ｆターム(参考) 5K030 HA06 JT02 KA04 LD11 MA04

(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **2005244647 A**

(43) Date of publication of application: **08.09.05**

(51) Int. Cl **H04L 12/58**
G06F 13/00
G06F 17/60

(21) Application number: **2004052209**

(22) Date of filing: **26.02.04**

(71) Applicant: **FUJI XEROX CO LTD**

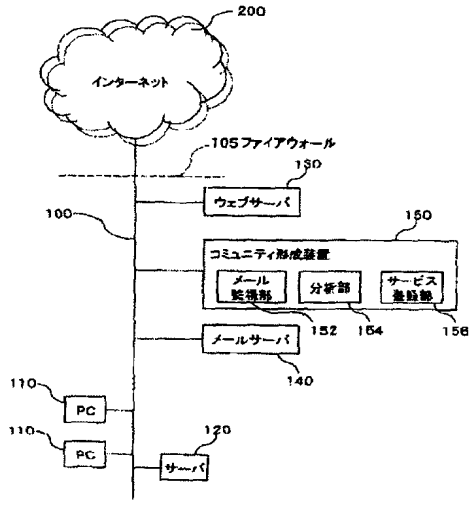
(72) Inventor: **NISHIKAWA EIJI**
ABE HITOSHI
KATSURABAYASHI HIROSHI
TAKEO NOBUYUKI
SASAKI TAKANAO

(54) COMMUNITY FORMING DEVICE

(57) Abstract:

PROBLEM TO BE SOLVED: To elicit a community which is potentially formed through exchange of electronic mails, for providing services to the community.

SOLUTION: A mail monitoring part 152 extracts a packet of the electronic mail flowing a LAN100, and acquires the electronic mail which has been transferred from among them, for accumulating the information on transfer. An analyzer 154 acquires such network connecting users as electronic mails are frequently transferred based on the information on mail transfer accumulated by the mail monitoring part 152, which is decided to be one community. A service registration part 156 generates a web page for exchanging information for the acquired community and registers it on a web server 130. It transmits the electronic mail to the users belonging to the community for notifying the web page.



COPYRIGHT: (C)2005,JPO&NCIPI

(19)日本国特許庁(JP)　(12)公開特許公報(A)　(11)特許出願公開番号
特開2005-174149
(P2005-174149A)
(43)公開日　平成17年6月30日(2005.6.30)

(51)Int.Cl.[7]	F I		テーマコード（参考）
G06F 17/60	G06F	17/60	150
G06F 13/00	G06F	13/00	560C

審査請求 未請求　請求項の数 12　OL　（全 11 頁）

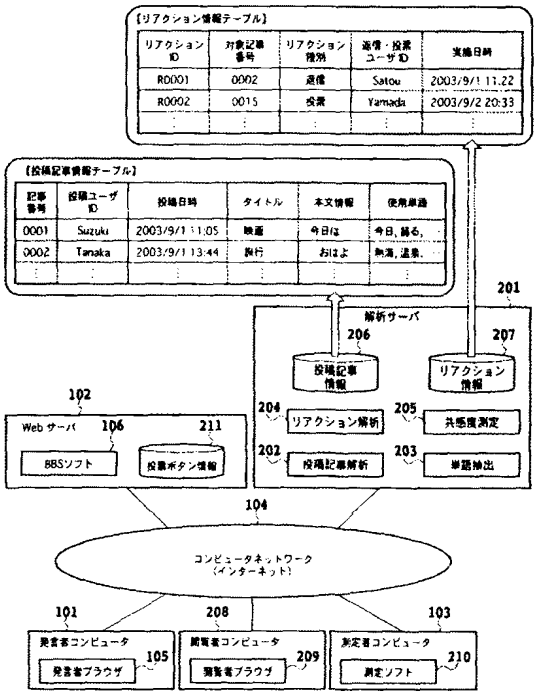
(21)出願番号　特願2003-415766 (P2003-415766)
(22)出願日　平成15年12月12日 (2003.12.12)

(71)出願人　000004226
日本電信電話株式会社
東京都千代田区大手町二丁目３番１号
(74)代理人　100077481
弁理士　谷　義一
(74)代理人　100088915
弁理士　阿部　和夫
(72)発明者　浅倉　剛
東京都千代田区大手町二丁目３番１号　日本電信電話株式会社内
(72)発明者　佐野　恵理
東京都千代田区大手町二丁目３番１号　日本電信電話株式会社内

最終頁に続く

(54)【発明の名称】インターネット上の情報解析システムおよび公開サーバ

(57)【要約】
【課題】　アクティブユーザのみではなくリードオンリーユーザも含めたネットコミュニティの参加者間の共感度を短時間で測定すること。
【解決手段】　閲覧者コンピュータ２０８には、閲覧者ブラウザ２０９が、またＷｅｂサーバ１０２にはログ情報データベース１０７の代わりに投票ボタン情報データベース２１１が具備され、測定者コンピュータ１０３にはログ読み込みソフト１０８の代わりに測定ソフト２１０が具備されている。設定した投票用「ボタン数」と「ボタン文字の内容」は、Ｗｅｂサーバ１０２内の投票ボタン情報データベース２１１に格納される。発言者コンピュータ１０１は、発言者ブラウザ１０５を用いて所定の情報を公開するインターネットサイトであるＢＢＳソフト１０６に記事の投稿を行い、同時に投票用「ボタン数」と「ボタン文字の内容」の設定も行う。投票ボタンが設定されると発言者ブラウザ１０５または閲覧者ブラウザ２０９に投票ボタンが表示される。
【選択図】　図３



【特許請求の範囲】
【請求項１】
所定の情報を公開し、閲覧または書き込みをされるインターネットサイトを含む公開サーバと、インターネットに接続し前記インターネットサイトを介して前記サーバに公開された情報の閲覧または書き込みを行う情報アクセス手段を含む１つまたは複数のクライアントコンピュータとを備えたインターネット上の情報解析システムにおいて、
該１つまたは複数のクライアントコンピュータにより投票ボタンが使用されると当該クライアントコンピュータを特定するクライアント情報および該投票ボタンに関する投票情報を格納する情報格納手段と、該クライアント情報および該投票情報を解析する解析手段とを含む解析サーバを備え、
前記公開サーバは、前記閲覧または書き込みの際に使用されると前記クライアント情報および前記投票情報を含む情報を該解析サーバに送信する投票ボタンを設定する投票ボタン設定手段と、当該設定された投票ボタンに関する前記投票情報を格納する投票情報データベースとを含むことを特徴とするインターネット上の情報解析システム。
【請求項２】
前記所定の情報は、１つまたは複数の文章からなる記事であり、
前記解析サーバは、前記解析手段により解析された情報を用いて、前記１つまたは複数のクライアントコンピュータの各々の間の書き込み回数および投票回数を算出し、当該算出された書き込み回数および投票回数に基づいて、前記１つまたは複数のクライアントコンピュータの各々の間の共感度を得る共感度取得手段をさらに含むことを特徴とする請求項１に記載のインターネット上の情報解析システム。
【請求項３】
前記解析サーバは、前記解析手段により解析される記事として、所定の期間に投稿された記事を抽出する期間抽出手段をさらに含み、
前記解析手段は、当該抽出された記事に基づいて解析を行うことを特徴とする請求項２に記載のインターネット上の情報解析システム。
【請求項４】
前記解析サーバは、前記解析手段により解析される記事として、所定のキーワードを表題または本文中に有する記事を抽出するキーワード抽出手段をさらに含み、
前記解析手段は、当該抽出された記事に基づいて解析を行うことを特徴とする請求項２に記載のインターネット上の情報解析システム。
【請求項５】
前記解析サーバは、前記解析手段により解析される記事として、所定のユーザにより投稿された記事を抽出するユーザ抽出手段をさらに含み、
前記解析手段は、当該抽出された記事に基づいて解析を行うことを特徴とする請求項２に記載のインターネット上の情報解析システム。
【請求項６】
前記投票情報は、前記投票ボタンの個数およびボタン文字の内容を有し、
前記投票ボタン設定手段は、前記書き込み時に投票ボタンを設定することを特徴とする請求項２ないし５のいずれかに記載のインターネット上の情報解析システム。
【請求項７】
前記解析手段は、前記閲覧時に投票が使用されたときの該閲覧時および前記書き込み時に「対象記事番号」「リアクション種別」「実施日時」「返信・投票ユーザＩＤ」を収集し格納する情報収集手段をさらに含むことを特徴とする請求項２ないし６のいずれかに記載のインターネット上の情報解析システム。
【請求項８】
前記共感度解析手段は、前記書き込み回数と前記投票回数とで異なる重み付けを行って共感度を得ることを特徴とする請求項２ないし７のいずれかに記載のインターネット上の情報解析システム。
【請求項９】

前記共感度解析手段は、前記書き込みまたは投票が双方向であるか片方向であるかにより異なる重み付けを行って共感度を得ることを特徴とする請求項２ないし８のいずれかに記載のインターネット上の情報解析システム。

【請求項１０】

前記１つまたは複数のクライアントコンピュータは、前記共感度解析手段により得られた共感度を前記解析サーバから受信して表示する共感度表示手段を含むことを特徴とする請求項２ないし９のいずれかに記載のインターネット上の情報解析システム。

【請求項１１】

前記解析サーバは、前記共感度解析手段により得られた共感度を用いて前記１つまたは複数のクライアントコンピュータのうちの所定のクライアントコンピュータと所定の共感度を有するクライアントコンピュータを抽出するユーザ抽出手段をさらに含むことを特徴とする請求項２ないし１０のいずれかに記載のインターネット上の情報解析システム。

【請求項１２】

所定の情報を公開し、１つまたは複数のクライアントコンピュータから閲覧または書き込みをされるインターネットサイトを含む公開サーバにおいて、

前記閲覧または書き込みの際に前記１つまたは複数のクライアントコンピュータにより使用されると当該クライアントコンピュータを特定するクライアント情報および該投票ボタンに関する投票情報を解析サーバに送信する投票ボタンを設定する投票ボタン設定手段と、

当該設定された投票ボタンに関する前記投票情報を格納する投票情報データベースと

を備えたことを特徴とする公開サーバ。

【発明の詳細な説明】

【技術分野】

【０００１】

本発明は、インターネット上の情報解析システムおよび公開サーバに関し、特に、インターネット上のネットコミュニティの参加ユーザ（投稿者及び閲覧者）間の共感度を測定するインターネット上の情報解析システムおよび公開サーバに関する。

【背景技術】

【０００２】

従来、ネットコミュニティの参加ユーザ間の共感度の測定は、Ｗｅｂサーバのログなどから誰が誰の投稿記事に多く返信しているのかといった情報や、Ｗｅｂサーバに蓄積されている記事情報などから誰が誰の記事を多く引用しているのかといった情報を抽出することにより実現している（例えば、特許文献１参照）。

【０００３】

一方、コンテンツの閲覧者が当該コンテンツを気にいった場合に投票ボタンをクリックすることによる人気投票結果を当該コンテンツ（の投稿者）に対する共感度の高さの指標とする方法も一般的である。

【０００４】

図１は、従来のネットコミュニティユーザ間の共感度測定の実現例を示す図である。図１において、記事を投稿及び返信する発言者コンピュータ１０１と、記事が公開されているＷｅｂサーバ１０２と、共感度を測定する測定者コンピュータ１０３がコンピュータネットワーク１０４に接続されている。発言者コンピュータ１０１には記事を投稿及び返信することが可能な発言者ブラウザ１０５が、Ｗｅｂサーバ１０２には記事の投稿及び返信を受け付けるＢＢＳソフト１０６、投稿及び返信の履歴が記録されているログ情報データベース１０７が、測定者コンピュータ１０３にはログ情報を閲覧するログ読み込みソフト１０８が具備されている。

【０００５】

発言者コンピュータ１０１は、発言者ブラウザ１０５を用いてＷｅｂサーバ１０２内のＢＢＳソフト１０６に記事の投稿及び返信を行う。ログ情報データベース１０７には投稿及び返信の履歴が記録される。測定者コンピュータ１０３は、ログ読み込みソフト１０８

を用いてＷｅｂサーバ１０２内のログ情報データベース１０７の内容を参照する。測定者はログ情報の内容から誰が誰の投稿記事に多く返信しているのかといった情報などを抽出することでユーザ間の共感度を測定することができる。

【０００６】

図２は、図１に示す実施形態に関する信号シーケンス図の一例を示したものである。

【０００７】

【特許文献１】特開２００１－９２９９３号公報

【発明の開示】

【発明が解決しようとする課題】

【０００８】

しかしながら、上述の返信や引用情報を元にネットコミュニティユーザ間の共感度を測定する方法の場合、共感度を測定する対象ユーザは記事を投稿及び返信するいわゆるアクティブユーザのみであり、ネットコミュニティ参加者の大多数を占めると言われるリードオンリーメンバー（閲覧のみするユーザ）との共感度を測定することは不可能である。また、ログを解析しようとする場合、解析手順は特に用意されていないため測定者自身が試行錯誤しながら結果を解析する必要があり、結果を得るまでにかなりの時間を要するという問題がある。

【０００９】

さらに、投票ボタンのクリックによる人気投票の場合、知ることができるのは投票数のみであり、誰から（何人から）投票されているのかを知ることは不可能である。

【００１０】

本発明は、このような問題に鑑みてなされたものであり、ネットコミュニティユーザが投稿記事に対して返信及び投票を実施した際に「対象記事番号（どの記事に対するリアクションなのか）」「リアクション種別（返信なのか投票なのか）」「実施日時」「返信・投票ユーザＩＤ」といった情報を解析サーバにリアルタイムで送信し蓄積する仕組みを導入することで、アクティブユーザのみではなくリードオンリーユーザも含めたネットコミュニティの参加者間の共感度を短時間で測定することを目的とする。

【課題を解決するための手段】

【００１１】

このような目的を達成するために、請求項１に記載の発明は、所定の情報を公開し、閲覧または書き込みをされるインターネットサイトを含む公開サーバと、インターネットに接続しインターネットサイトを介してサーバに公開された情報の閲覧または書き込みを行う情報アクセス手段を含む１つまたは複数のクライアントコンピュータとを備えたインターネット上の情報解析システムにおいて、１つまたは複数のクライアントコンピュータにより投票ボタンが使用されるとクライアントコンピュータを特定するクライアント情報および投票ボタンに関する投票情報を格納する情報格納手段と、クライアント情報および投票情報を解析する解析手段とを含む解析サーバを備え、公開サーバは、閲覧または書き込みの際に使用されるとクライアント情報および投票情報を含む情報を解析サーバに送信する投票ボタンを設定する投票ボタン設定手段と、設定された投票ボタンに関する投票情報を格納する投票情報データベースとを含むことを特徴とする。

【００１２】

請求項２に記載の発明は、請求項１に記載のインターネット上の情報解析システムにおいて、所定の情報は、１つまたは複数の文章からなる記事であり、解析サーバは、解析手段により解析された情報を用いて、１つまたは複数のクライアントコンピュータの各々の間の書き込み回数および投票回数を算出し、算出された書き込み回数および投票回数に基づいて、１つまたは複数のクライアントコンピュータの各々の間の共感度を得る共感度取得手段をさらに含むことを特徴とする。

【００１３】

請求項３に記載の発明は、請求項２に記載のインターネット上の情報解析システムにおいて、解析サーバは、解析手段により解析される記事として、所定の期間に投稿された記

事を抽出する期間抽出手段をさらに含み、解析手段は、抽出された記事に基づいて解析を行うことを特徴とする。

【００１４】

請求項４に記載の発明は、請求項２に記載のインターネット上の情報解析システムにおいて、解析サーバは、解析手段により解析される記事として、所定のキーワードを表題または本文中に有する記事を抽出するキーワード抽出手段をさらに含み、解析手段は、抽出された記事に基づいて解析を行うことを特徴とする。

【００１５】

請求項５に記載の発明は、請求項２に記載のインターネット上の情報解析システムにおいて、解析サーバは、解析手段により解析される記事として、所定のユーザにより投稿された記事を抽出するユーザ抽出手段をさらに含み、解析手段は、抽出された記事に基づいて解析を行うことを特徴とする。

【００１６】

請求項６に記載の発明は、請求項２ないし５のいずれかに記載のインターネット上の情報解析システムにおいて、投票情報は、投票ボタンの個数およびボタン文字の内容を有し、投票ボタン設定手段は、書き込み時に投票ボタンを設定することを特徴とする。

【００１７】

請求項７に記載の発明は、請求項２ないし６のいずれかに記載のインターネット上の情報解析システムにおいて、解析手段は、閲覧時に投票が使用されたときの閲覧時および前記書き込み時に「対象記事番号」「リアクション種別」「実施日時」「返信・投票ユーザＩＤ」を収集し格納する情報収集手段をさらに含むことを特徴とする。

【００１８】

請求項８に記載の発明は、請求項２ないし７のいずれかに記載のインターネット上の情報解析システムにおいて、共感度解析手段は、書き込み回数と前記投票回数とで異なる重み付けを行って共感度を得ることを特徴とする。

【００１９】

請求項９に記載の発明は、請求項２ないし８のいずれかに記載のインターネット上の情報解析システムにおいて、共感度解析手段は、書き込みまたは投票が双方向であるか片方向であるかにより異なる重み付けを行って共感度を得ることを特徴とする。

【００２０】

請求項１０に記載の発明は、請求項２ないし９のいずれかに記載のインターネット上の情報解析システムにおいて、１つまたは複数のクライアントコンピュータは、共感度解析手段により得られた共感度を解析サーバから受信して表示する共感度表示手段を含むことを特徴とする。

【００２１】

請求項１１に記載の発明は、請求項２ないし１０のいずれかに記載のインターネット上の情報解析システムにおいて、解析サーバは、共感度解析手段により得られた共感度を用いて１つまたは複数のクライアントコンピュータのうちの所定のクライアントコンピュータと所定の共感度を有するクライアントコンピュータを抽出するユーザ抽出手段をさらに含むことを特徴とする。

【００２２】

請求項１２に記載の発明は、所定の情報を公開し、１つまたは複数のクライアントコンピュータから閲覧または書き込みをされるインターネットサイトを含む公開サーバにおいて、閲覧または書き込みの際に１つまたは複数のクライアントコンピュータにより使用されるとクライアントコンピュータを特定するクライアント情報および投票ボタンに関する投票情報を解析サーバに送信する投票ボタンを設定する投票ボタン設定手段と、設定された投票ボタンに関する投票情報を格納する投票情報データベースとを備えたことを特徴とする。

【発明の効果】

【００２３】

以上説明したように、本発明では、１つまたは複数のクライアントコンピュータにより投票ボタンが使用されるとクライアントコンピュータを特定するクライアント情報および投票ボタンに関する投票情報を格納する情報格納手段と、クライアント情報および投票情報を解析する解析手段とを含む解析サーバを備え、公開サーバは、閲覧または書き込みの際に使用するとクライアント情報および投票情報を含む情報を解析サーバに送信する投票ボタンを設定する投票ボタン設定手段と、設定された投票ボタンに関する投票情報を格納する投票情報データベースとを含むので、アクティブユーザのみではなくリードオンリーユーザも含めたネットコミュニティの参加者間の共感度を短時間で測定することが可能となる。

【発明を実施するための最良の形態】

【００２４】

以下、本発明について図面を参照して説明する。

【００２５】

図３は、本発明におけるネットコミュニティユーザ間の共感度測定の一実現形態を示す図である。図３において、図１との差異は、解析サーバ２０１と閲覧者コンピュータ２０８がコンピュータネットワーク１０４に接続されている点にある。解析サーバ２０１には投稿記事解析モジュール２０２、単語抽出モジュール２０３、リアクション解析モジュール２０４、共感度測定モジュール２０５、投稿記事情報データベース２０６、リアクション情報データベース２０７が具備されている。

【００２６】

閲覧者コンピュータ２０８には、閲覧者ブラウザ２０９が具備されている。また、公開サーバであるＷｅｂサーバ１０２にはログ情報データベース１０７の代わりに投票ボタン情報データベース２１１が具備され、測定者コンピュータ１０３にはログ読み込みソフト１０８の代わりに測定ソフト２１０が具備されている。設定した投票用「ボタン数」と「ボタン文字の内容」は、Ｗｅｂサーバ１０２内の投票ボタン情報データベース２１１に格納される。

【００２７】

発言者コンピュータ１０１により、発言者ブラウザ１０５が用いられて所定の情報を公開するインターネットサイトであるＢＢＳソフト１０６に記事の投稿、すなわち書き込みが行われる。また、これと同時に投票用「ボタン数」と「ボタン文字の内容」の設定も行う。投票ボタンが設定されると発言者ブラウザ１０５または閲覧者ブラウザ２０９に投票ボタンが表示される。これにより、閲覧者に対して投票ボタンをクリックしてその閲覧者に関する情報を送信するようにすることができる。ここで送信された情報は、解析サーバ２０１において受信され集計された後種々の解析が行われる。

【００２８】

解析サーバ２０１は、投稿記事解析モジュール２０２を用いて投稿された記事情報を「記事番号」と「投稿ユーザＩＤ」と「タイトル」と「本文」と「投稿日時」に分割して、投稿記事情報データベース２０６に格納する。さらに「本文」を単語抽出モジュール２０３に送信し、形態素解析などにより単語単位に分割し投稿記事情報データベース２０６に格納する。

【００２９】

閲覧者コンピュータ２０８は、通常単に閲覧のみを行うが、上述のように投票ボタンが表示されるので、これに促され閲覧者ブラウザ２０９を用いてＷｅｂサーバ１０２内のＢＢＳソフト１０６に投票を行う、すなわち投票ボタンを使用するのである。解析サーバ２０１は、リアクション解析モジュール２０４を用いて「対象記事番号」と「リアクション種別（返信なのか投票なのか）」と「返信・投票ユーザＩＤ」と「実施日時」の情報を収集して、リアクション情報データベース２０７に格納する。格納の際にはデータベース内で一意の「リアクションＩＤ」が割り当てられる。

【００３０】

測定者コンピュータ１０３は、測定ソフト２１０を用いて条件（投稿期間、キーワード

、投稿ユーザＩＤ）を指定して、解析サーバ２０１内の共感度測定モジュール２０５に対して、共感度測定の要求を行う。共感度測定モジュール２０５は指定条件を投稿記事情報データベース２０６及びリアクション情報データベース２０７に照会する。照会結果は共感度測定モジュール２０５に送信され、照会結果を用いてネットコミュニティユーザ間の共感度が算出される。算出結果をグラフや表の形に整え、測定者コンピュータ１０３に送信する。

【００３１】

図４は、図３に関する信号シーケンス図の一例を示したものである。

【００３２】

図５および６は、本発明においてネットコミュニティユーザ間の共感度が測定される手順の一例を説明するための図である。このうち、ステップ１および２は図５を、ステップ３および４は図６を用いて説明する。測定手順は、例えば測定ソフト２１０により測定者コンピュータ１０３上に図５の＜ステップ１＞に示す共感度測定の対象期間を設定する画面が表示されることから始まる。各ステップの説明を以下に示す。

【００３３】

＜ステップ１＞

測定者が測定ソフト２１０を用いてネットコミュニティユーザ間の共感度を測定する際に、最初に条件設定の一例として測定の対象期間を設定する。共感度測定モジュール２０５は、設定された指定期間中に投稿された記事情報を投稿記事情報データベース２０６に照会する。投稿記事情報テーブルの「投稿日時」が指定期間と一致するデータが「中間テーブルＡ」に出力される。

【００３４】

＜ステップ２＞

共感度測定モジュール２０５は、＜ステップ１＞で出力された「中間テーブルＡ」から「記事番号」を取得し、この「記事番号」に該当する投稿記事に対して実施された返信及び投票に関する情報をリアクション情報データベース２０７に照会する。リアクション情報テーブルの「対象記事番号」が「中間テーブルＡ」の「記事番号」と一致するデータが「中間テーブルＢ」に出力される。

【００３５】

＜ステップ３＞

図６に示すように、共感度測定モジュール２０５は「中間テーブルＡ」の「投稿ユーザＩＤ」と「中間テーブルＢ」の「リアクション種別」「返信・投票ユーザＩＤ」を元に指定期間に各ユーザがどのユーザの投稿記事に対して何回返信や投票を実施したかを算出し、「返信回数算出テーブル」及び「投票回数算出テーブル」に出力する。

【００３６】

＜ステップ４＞

図６に示すように共感度測定モジュール２０５は、＜ステップ３＞で出力された「返信回数算出テーブル」及び「投票回数算出テーブル」の値を用いて各ユーザ間の共感度を算出する。共感度は以下の方針に沿って算出される。

【００３７】

・返信数、投票数が多いほど共感度は上がる。

・返信数の方が投票数よりも共感度上昇を大きくする。

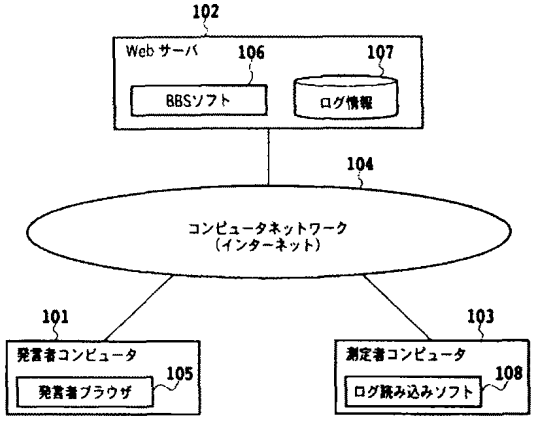
・２者間で片方のユーザのみが返信や投票を繰り返している場合は共感度の上昇を一定の比率で小さくする。

【００３８】

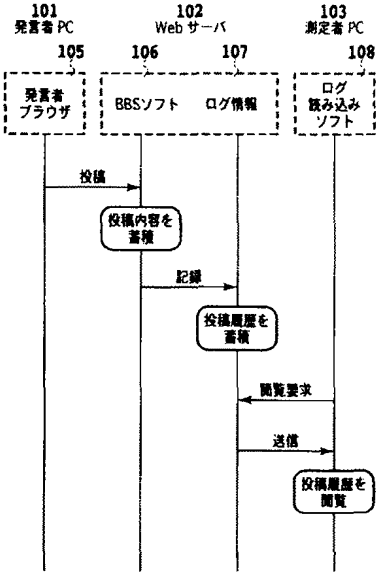
以上述べたように、本発明による共感度測定を実施することにより高い共感度を多くのユーザから集めているユーザ（またはユーザグループ）を発見することが可能となる。これらのユーザは、そのネットコミュニティのオピニオンリーダである可能性があり、そのユーザの発言内容を分析したり、そのユーザに対して広告を配信したりすることにより、企業にとって効果的なマーケティングを実施することができる。

【図面の簡単な説明】
【００３９】
【図１】従来のネットコミュニティユーザ間の共感度測定の実現例を示す図である。
【図２】図１に示す実施形態に関する信号シーケンス図の一例を示したものである。
【図３】本発明におけるネットコミュニティユーザ間の共感度測定の一実現形態を示す図である。
【図４】図３に示す実施形態に関する信号シーケンス図の一例を示したものである。
【図５】本発明においてネットコミュニティユーザ間の共感度が測定される手順の一例を説明するための図である。
【図６】本発明においてネットコミュニティユーザ間の共感度が測定される手順の一例を説明するための図である。
【符号の説明】
【００４０】
１０１　発言者コンピュータ
１０２　Ｗｅｂサーバ
１０３　測定者コンピュータ
１０４　コンピュータネットワーク
１０５　発言者ブラウザ
１０６　ＢＢＳソフト
１０７　ログ情報データベース
１０８　ログ読み込みソフト
２０１　解析サーバ
２０２　投稿記事解析モジュール
２０３　単語抽出モジュール
２０４　リアクション解析モジュール
２０５　共感度測定モジュール
２０６　投稿記事情報データベース
２０７　リアクション情報データベース
２０８　閲覧者コンピュータ
２０９　閲覧者ブラウザ
２１０　測定ソフト

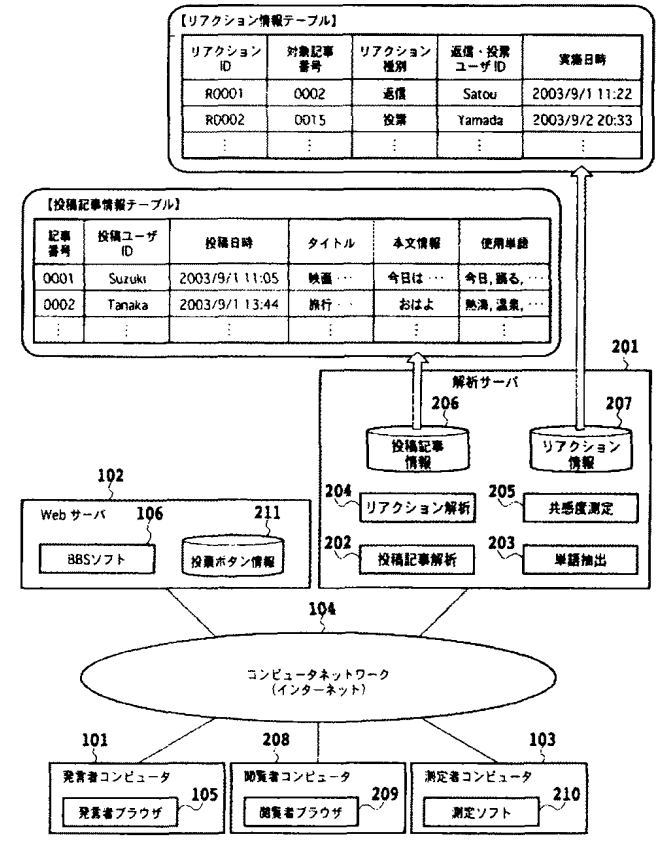
【図１】


102
Web サーバ
106
107
BBSソフト
ログ情報
104
コンピュータネットワーク
（インターネット）
101
発言者コンピュータ
105
発言者ブラウザ
103
測定者コンピュータ
108
ログ読み込みソフト

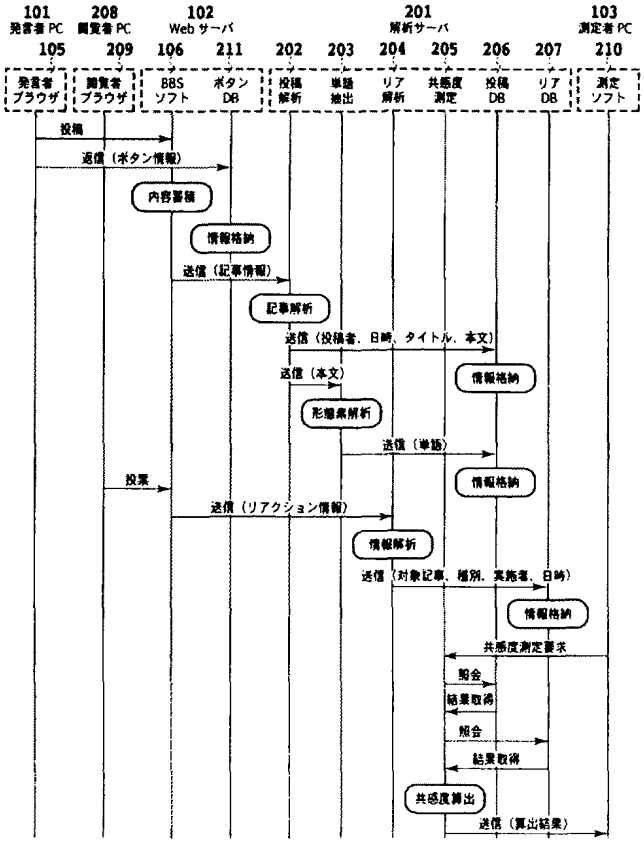
【図２】


101
発言者 PC
102
Web サーバ
103
測定者 PC
105
106
107
108
発言者ブラウザ
BBSソフト
ログ情報
ログ読み込みソフト
投稿
投稿内容を蓄積
記録
投稿履歴を蓄積
閲覧要求
送信
投稿履歴を閲覧

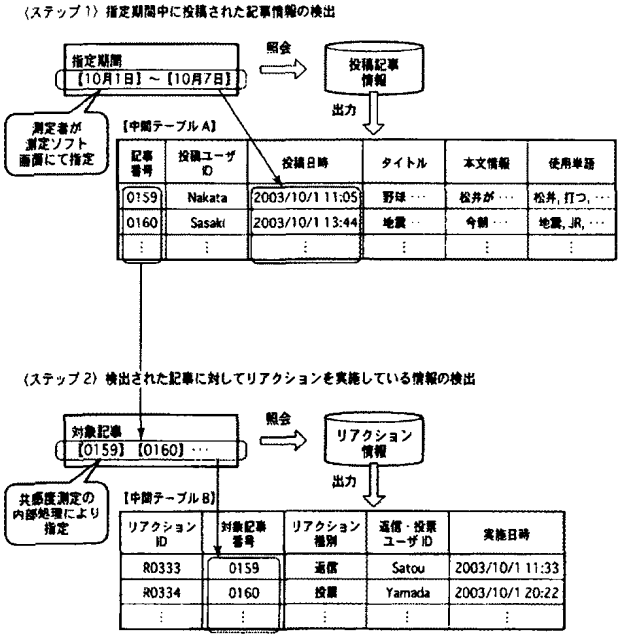
【図３】


【リアクション情報テーブル】
リアクション ID
対象記事番号
リアクション種別
返信・投票ユーザ ID
実施日時
R0001
0002
返信
Satou
2003/9/1 11:22
R0002
0015
投票
Yamada
2003/9/2 20:33
【投稿記事情報テーブル】
記事番号
投稿ユーザ ID
投稿日時
タイトル
本文情報
使用単語
0001
Suzuki
2003/9/1 11:05
映画・・・
今日は・・・
今日, 観る, ・・・
0002
Tanaka
2003/9/1 13:44
旅行・・・
おはよ
熱海, 温泉, ・・・
201
解析サーバ
206
投稿記事情報
207
リアクション情報
204
リアクション解析
205
共感度測定
202
投稿記事解析
203
単語抽出
102
Web サーバ
106
211
BBSソフト
投票ボタン情報
104
コンピュータネットワーク
（インターネット）
101
発言者コンピュータ
105
発言者ブラウザ
208
閲覧者コンピュータ
209
閲覧者ブラウザ
103
測定者コンピュータ
210
測定ソフト

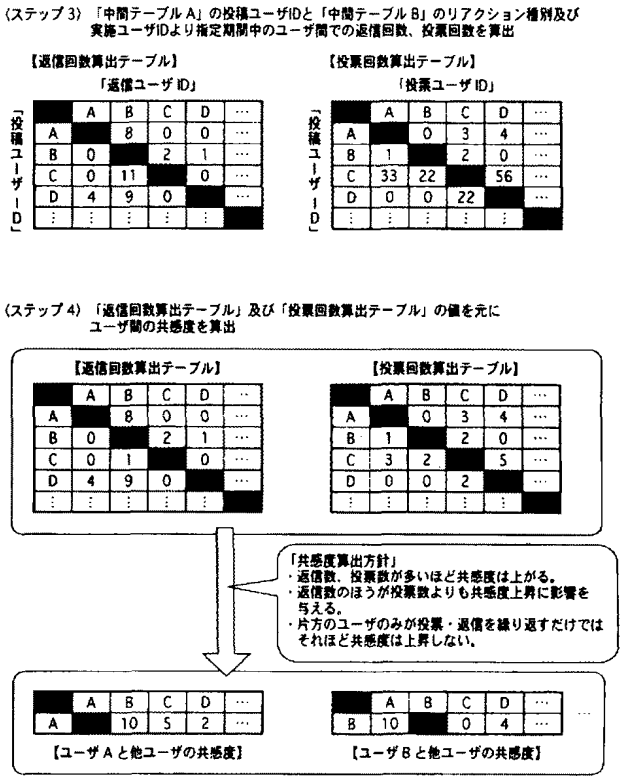
【図４】


101
発言者 PC
208
閲覧者 PC
102
Web サーバ
201
解析サーバ
103
測定者 PC
105
209
106
211
202
203
204
205
206
207
210
発言者ブラウザ
閲覧者ブラウザ
BBS ソフト
ボタン DB
投稿解析
単語抽出
リア解析
共感度測定
投稿 DB
リア DB
測定ソフト
投稿
返信（ボタン情報）
内容蓄積
情報格納
送信（記事情報）
記事解析
送信（投稿者, 日時, タイトル, 本文）
送信（本文）
情報格納
形態素解析
送信（単語）
情報格納
投票
送信（リアクション情報）
情報解析
送信（対象記事, 種別, 実施者, 日時）
情報格納
共感度測定要求
照会
結果取得
照会
結果取得
共感度算出
送信（算出結果）

【図５】


〈ステップ１〉指定期間中に投稿された記事情報の検出
指定期間
【10月1日】～【10月7日】
照会
投稿記事情報
出力
測定者が測定ソフト画面にて指定
【中間テーブルA】
記事番号
投稿ユーザID
投稿日時
タイトル
本文情報
使用単語
0159
Nakata
2003/10/1 11:05
野球…
松井が…
松井, 打つ, …
0160
Sasaki
2003/10/1 13:44
地震…
今朝…
地震, JR, …
〈ステップ２〉検出された記事に対してリアクションを実施している情報の検出
対象記事
【0159】【0160】…
照会
リアクション情報
出力
共感度測定の内部処理により指定
【中間テーブルB】
リアクションID
対象記事番号
リアクション種別
返信・投票ユーザID
実施日時
R0333
0159
返信
Satou
2003/10/1 11:33
R0334
0160
投票
Yamada
2003/10/1 20:22

【図６】


〈ステップ３〉「中間テーブルA」の投稿ユーザIDと「中間テーブルB」のリアクション種別及び実施ユーザIDより指定期間中のユーザ間での返信回数、投票回数を算出
【返信回数算出テーブル】
「返信ユーザID」
「投稿ユーザID」
【投票回数算出テーブル】
「投票ユーザID」
「投稿ユーザID」
〈ステップ４〉「返信回数算出テーブル」及び「投票回数算出テーブル」の値を元にユーザ間の共感度を算出
【返信回数算出テーブル】
【投票回数算出テーブル】
「共感度算出方針」
・返信数、投票数が多いほど共感度は上がる。
・返信数のほうが投票数よりも共感度上昇に影響を与える。
・片方のユーザのみが投票・返信を繰り返すだけではそれほど共感度は上昇しない。
【ユーザAと他ユーザの共感度】
【ユーザBと他ユーザの共感度】

フロントページの続き
(72)発明者 高田 慎也
東京都千代田区大手町二丁目３番１号 日本電信電話株式会社内
(72)発明者 中村 美穂
東京都千代田区大手町二丁目３番１号 日本電信電話株式会社内

(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **2005174149 A**

(43) Date of publication of application: **30.06.05**

(51) Int. Cl **G06F 17/60**
G06F 13/00

(21) Application number: **2003415766**

(22) Date of filing: **12.12.03**

(71) Applicant: **NIPPON TELEGR & TELEPH CORP <NTT>**

(72) Inventor: **ASAKURA TAKESHI**
SANO ERI
TAKADA SHINYA
NAKAMURA YOSHIO

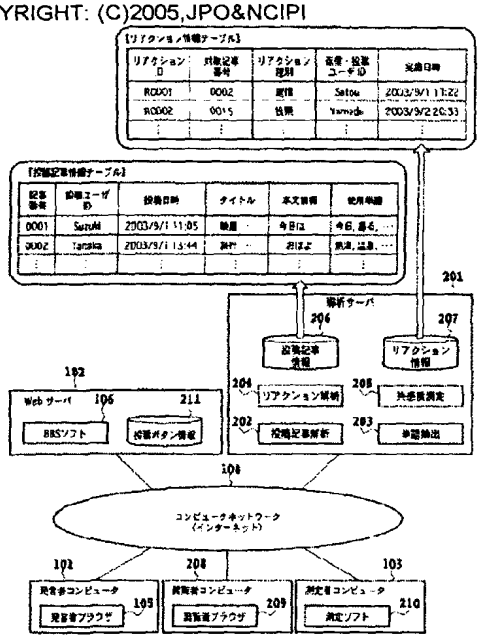
(54) **INFORMATION ANALYSIS SYSTEM OVER THE INTERNET, AND PUBLIC SERVER**

COPYRIGHT: (C)2005,JPO&NCIPI

(57) Abstract:

PROBLEM TO BE SOLVED: To measure a degree of sympathy among participants in a network community, including not only active user but also read-only users, in a short time.

SOLUTION: A browsing person computer 208 has a browsing person browser 209, a Web server 102 has a voting button information database 211 instead of a log information database 107, and a measurer computer 103 has measurement software 210 instead of log reading software 108. The set voting "number of buttons" and "contents of a button character" are stored in a voting button information database 211 inside the Web server 102. A speaker computer 101 contributes an article to BBS software 106, that is an Internet site opening prescribed information by use of a speaker browser 105, and simultaneously, sets the voting "number of buttons" and "contents of a button character". When a voting button is set, the voting button is displayed in the speaker browser 105 or the browsing person browser 209.



(19)日本国特許庁(JP)　(12)公開特許公報(A)　(11)特許出願公開番号
特開2006-309660
(P2006-309660A)
(43)公開日　平成18年11月9日(2006.11.9)

(51)Int.Cl.		F I			テーマコード（参考）
G06F 17/30	(2006.01)	G06F	17/30	340A	5B075
G06Q 30/00	(2006.01)	G06F	17/60	302E	
		G06F	17/60	326	
		G06F	17/60	330	

審査請求 未請求　請求項の数 7　OL　（全 17 頁）

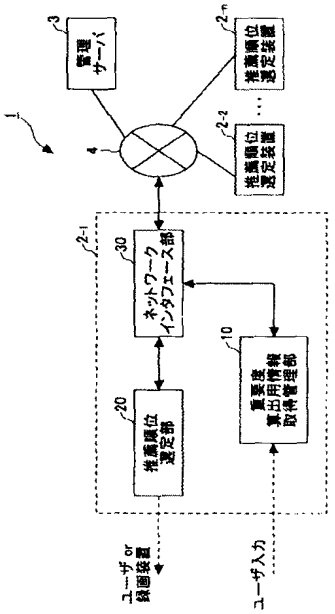
(21)出願番号　特願2005-134272 (P2005-134272)
(22)出願日　平成17年5月2日 (2005.5.2)

(71)出願人　000004352
日本放送協会
東京都渋谷区神南２丁目２番１号
(74)代理人　100070150
弁理士　伊東　忠彦
(72)発明者　上野　幹大
東京都世田谷区砧一丁目１０番１１号　日本放送協会放送技術研究所内
(72)発明者　木村　武史
東京都世田谷区砧一丁目１０番１１号　日本放送協会放送技術研究所内

Fターム(参考)　5B075 ND12　UU34

(54)【発明の名称】推薦順位選定装置及び推薦順位選定プログラム推薦順位選定装置及び推薦順位選定プログラム

(57)【要約】
【課題】高精度にコンテンツの推薦順位を選定する。
【解決手段】所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定装置において、前記所定の人物が前記コンテンツの重要度を算出するための重要度算出用情報を、ユーザの入力により取得し管理する重要度算出用情報取得管理部と、前記所定の人物から取得した重要度算出用情報と、予め設定される前記所定の人物に対する重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定部とを有することにより、上記課題を解決する。
【選択図】　図１



【特許請求の範囲】
【請求項１】
所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定装置において、
前記所定の人物が前記コンテンツの重要度を算出するための重要度算出用情報を、ユーザの入力により取得し管理する重要度算出用情報取得管理部と、
前記所定の人物から取得した重要度算出用情報と、予め設定される前記所定の人物に対する重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定部とを有することを特徴とする推薦順位選定装置。
【請求項２】
前記重要度算出用情報取得管理部は、
前記ユーザが前記コンテンツに対して評価した評価情報を取得する評価取得部と、
前記コンテンツに対する前記ユーザの操作内容を取得する操作内容取得部とを有することを特徴とする請求項１に記載の推薦順位選定装置。
【請求項３】
前記推薦順位選定部は、
前記ネットワークの構成情報を取得するネットワーク構成情報取得部と、
前記ネットワーク構成情報取得部により得られるネットワーク構成から利用する友人を選択する友人情報選択部と、
前記友人情報選択部により選択した友人毎における前記重要度算出用情報を取得する重要度算出用情報取得部と、
前記友人情報選択部により選択した友人毎に重み付け値を設定する重み付け処理部と、
前記友人毎の前記重要度算出用情報と、前記重み付け値とに基づいて推薦順位の算出を行う推薦順位算出部とを有することを特徴とする請求項１又は２に記載の推薦順位選定装置。
【請求項４】
前記重み付け処理部は、
前記ネットワーク構成上における前記友人と前記ユーザとの距離に基づいて、前記友人の重み付けを設定することを特徴とする請求項３に記載の推薦順位選定装置。
【請求項５】
前記推薦順位算出部は、
前記友人毎の重要度算出情報における前記操作内容及び／又は前記評価情報に基づいて前記友人毎の前記コンテンツに対する重要度を算出することを特徴とする請求項３又は４に記載の推薦順位選定装置。
【請求項６】
前記推薦順位算出部は、
前記重要度を前記コンテンツ毎に合計して得られた値に基づいて、前記コンテンツを順位付けし、予め設定した順位のコンテンツの情報を出力することを特徴とする請求項５に記載の推薦順位選定装置。
【請求項７】
所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定処理をコンピュータに実行させるための推薦順位選定プログラムにおいて、
前記所定の人物を選定する所定人物選定処理と、
前記所定人物選定処理により得られる所定の人物に対して重み付け値を設定する重み付け処理と、
前記所定の人物から、前記コンテンツに対する重要度算出用情報を取得する重要度情報取得処理と、
前記重要度算出用情報と、前記重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定処理とをコンピュータに実行させるための推薦順位選定プログラム

。

【発明の詳細な説明】
【技術分野】
【０００１】
本発明は、推薦順位選定装置及び推薦順位選定プログラムに係り、特にユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定するための推薦順位選定装置及び推薦順位選定プログラムに関する。
【背景技術】
【０００２】
従来、番組等の提供情報をユーザに推薦する技術として、ユーザが過去に録画予約した番組や視聴した番組の履歴情報を記録しておき、この録画予約操作における履歴情報や視聴履歴情報、ユーザが予めプリセットしておいたユーザ自身の属性やキーワードの情報に基づいて、ユーザが能動的に録画予約操作をしなくてもＥＰＧ（Ｅｌｅｃｔｒｉｃ Ｐｒｏｇｒａｍ Ｇｕｉｄｅ）等を参照してユーザが好みそうな番組を検索し自動的に録画して推薦情報として提示する技術がある。
【０００３】
また、インターネット上の販売店においては、客が一度に購入した複数の商品を記録しておき、その商品を紹介する画面上に、その商品を過去に購入した客の多くが同時に購入している別の商品も表示させて、客に商品を推薦する技術がある。
【０００４】
また、番組の編集システムにおいては、ユーザの嗜好や興味と、客観的な話題性との両方を考慮した情報を提供するために、ユーザ以外の対象に関する他対象情報に基づいて番組情報記憶手段の中から番組情報を検索し、検索手段で索出した番組情報に基づいてユーザへの提供番組を編集する番組編集手段を有する技術がある（例えば、特許文献１参照。）。
【特許文献１】特開２００３－１９９０８４号公報
【発明の開示】
【発明が解決しようとする課題】
【０００５】
ところで、従来技術においては、上述したようにユーザの録画予約操作における履歴情報等や、ユーザの属性、キーワードの情報に基づいて自動的に番組を録画する場合、ユーザの自身の趣味や嗜好にあった番組は自動的に録画される。しかしながら、ユーザ自身の趣味や嗜好にはあっていないものの、例えばユーザの友人等の多くが録画予約した番組や、ユーザの友人の多くが実際に視聴した番組等があった場合、このような番組は自動的には録画されることはない。したがって、例えば、後日友人が話題にした番組は、すでに放送されており結果として自分の友人の多くが視聴し話題にした番組を見ることができないという状態が発生してしまう。
【０００６】
一方、上述したインターネット上の販売店の例においては、ユーザと似た趣味や嗜好のユーザとは関連のない他人が購入した商品を知ることはできるが、その他人が友人であるかどうかは不明であるため、ユーザの友人の多くが購入した商品等を区別して知ることはできない。
【０００７】
また、特許文献１に記載された技術も、従来技術ではユーザ自身の親しい友人達の中で人気のある番組や楽曲、商品等のコンテンツを知ることはできず、これらの情報を知るためには実際に会話したり、電子メールやインターネット上の掲示板等でのやり取り等、直接的な情報伝達により相手から伝えてもらわなければならなかった。このため、自分の親しい友人達の多くが好んで視聴している番組や楽曲や自分の親しい友人達の多くが購入した商品を自分だけが知らずにいるような状況が発生してしまうという問題があった。

【０００８】
ここで、最近では、インターネット等に代表される通信ネットワーク上において友人関係・知人関係が構築されたソーシャルネットワークサービスが存在し、ソーシャルネットワークサービス内では、“友人”、“友人の友人”、“友人の友人の友人”、“友人の友人の友人の友人”等といったように、自分（ユーザ）と相手（友人）との人間関係の距離を明確に把握することができる。したがって、この距離情報に基づいて番組や楽曲、商品等のコンテンツを推薦することができれば、高精度な情報の提供を実現することが考えられる。しかしながら、従来では上述のネットワークは利用されていない。

【０００９】
本発明は、上記の問題点に鑑みてなされたものであって、ユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定するための推薦順位選定装置及び推薦順位選定プログラムを提供することを目的とする。

【課題を解決するための手段】

【００１０】
上記課題を解決するために、本件発明は、以下の特徴を有する課題を解決するための手段を採用している。

【００１１】
請求項１に記載された発明は、所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定装置において、前記所定の人物が前記コンテンツの重要度を算出するための重要度算出用情報を、ユーザの入力により取得し管理する重要度算出用情報取得管理部と、前記所定の人物から取得した重要度算出用情報と、予め設定される前記所定の人物に対する重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定部とを有することを特徴とする。

【００１２】
請求項１記載の発明によれば、ユーザと相手（所定の人物）との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。

【００１３】
請求項２に記載された発明は、前記重要度算出用情報取得管理部は、前記ユーザが前記コンテンツに対して評価した評価情報を取得する評価取得部と、前記コンテンツに対する前記ユーザの操作内容を取得する操作内容取得部とを有することを特徴とする。

【００１４】
請求項２記載の発明によれば、ユーザが設定したコンテンツに対する操作内容及び／又は評価情報を他の推薦順位選定装置に提供することができる。これにより、コンテンツにおける重要度の設定を高精度に行うことができる。

【００１５】
請求項３に記載された発明は、前記推薦順位選定部は、前記ネットワークの構成情報を取得するネットワーク構成情報取得部と、前記ネットワーク構成情報取得部により得られるネットワーク構成から利用する友人を選択する友人情報選択部と、前記友人情報選択部により選択した友人毎における前記重要度算出用情報を取得する重要度算出用情報取得部と、前記友人情報選択部により選択した友人毎に重み付け値を設定する重み付け処理部と、前記友人毎の前記重要度算出用情報と、前記重み付け値とに基づいて推薦順位の算出を行う推薦順位算出部とを有することを特徴とする。

【００１６】
請求項３記載の発明によれば、ネットワーク上に構築されている友人関係・知人関係の情報に基づいて高精度に推薦順位の算出を行うことができる。これにより、自分の友人の多くが視聴したコンテンツ等の情報を取得することができる。

【００１７】
請求項４に記載された発明は、前記重み付け処理部は、前記ネットワーク構成上における前記友人と前記ユーザとの距離に基づいて、前記友人の重み付けを設定することを特徴とする。

【００１８】
請求項４記載の発明によれば、友人との人間関係の距離に基づいて、ユーザが所望するコンテンツを取得することができる。
【００１９】
請求項５に記載された発明は、前記推薦順位算出部は、前記友人毎の重要度算出情報における前記操作内容及び／又は前記評価情報に基づいて前記友人毎の前記コンテンツに対する重要度を算出することを特徴とする。
【００２０】
請求項５記載の発明によれば、友人毎の前記コンテンツに対する重要度を取得することができる。これにより、より高精度にコンテンツの推薦順位を選定することができる。
【００２１】
請求項６に記載された発明は、前記推薦順位算出部は、前記重要度を前記コンテンツ毎に合計して得られた値に基づいて、前記コンテンツを順位付けし、予め設定した順位のコンテンツの情報を出力することを特徴とする。
【００２２】
請求項６記載の発明によれば、ユーザが必要とするコンテンツの情報のみを効率的にユーザに提示することができる。
【００２３】
請求項７に記載された発明は、所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定処理をコンピュータに実行させるための推薦順位選定プログラムにおいて、前記所定の人物を選定する所定人物選定処理と、前記所定人物選定処理により得られる所定の人物に対して重み付け値を設定する重み付け処理と、前記所定の人物から、前記コンテンツに対する重要度算出用情報を取得する重要度情報取得処理と、前記重要度算出用情報と、前記重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定処理とをコンピュータに実行させる。
【００２４】
請求項７記載の発明によれば、ユーザと相手（所定の人物）との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。また、プログラムをインストールすることにより、容易に推薦順位選定処理を実現することができる。
【発明の効果】
【００２５】
本発明によれば、ユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。
【発明を実施するための最良の形態】
【００２６】
以下に、上記のような特徴を有する本発明における推薦順位選定装置及び推薦順位選定プログラムを好適に実施した形態について、図面を用いて詳細に説明する。
【００２７】
＜実施例＞
図１は、推薦順位選択システムの一構成例を示す図である。図１に示す推薦順位選択システム１は、１以上の推薦順位選定装置２－１～２－ｎと、後述するソーシャルネットワークを管理する管理サーバ３とを有するよう構成されており、推薦順位選定装置２と、管理サーバ３とは、インターネット等に代表される通信ネットワーク４を介してデータの送受信が可能な状態で接続されている。
【００２８】
また、推薦順位選定装置２－１～２－ｎは、重要度算出用取得管理部１０と、推薦順位選定部２０と、ネットワークインタフェース部３０とを有するよう構成されている。
【００２９】
なお、上述するシステム構成においては、番組や楽曲等のコンテンツを推薦順位選定装

置２－１～２－ｎに提供するコンテンツサーバ等が設けられていてもよく、管理サーバ３がコンテンツの提供を行ってもよい。

【００３０】

ここで、推薦順位選定装置２において、重要度算出用取得管理部１０は、ソーシャルネットワーク上の他のユーザが使用する他の推薦順位選定装置２が、コンテンツの推薦順位を選定するために必要な情報を取得・管理し、他の推薦順位選定装置２からの情報取得リクエストに応じて情報を出力する。

【００３１】

また、推薦順位選定部２０は、コンテンツの推薦順位を選定し、ディスプレイ等を介してユーザに提示するか、録画装置等を用いて自動録画の指示等を出力する。なお、コンテンツの推薦順位の選定については、友人等の所定の人物とのソーシャルネットワークサービス内での距離、及び各友人における各コンテンツの重要度等により推薦順位を選定する。

【００３２】

また、ネットワークインタフェース部３０は、推薦順位選定部２０及び重要度算出用情報取得管理部２０の要求に応じて通信ネットワーク４を介して他の推薦順位選定装置２やソーシャルネットワークサービス全体を管理する管理サーバ３と通信を行い、情報のやり取りを行う。

【００３３】

ここで、管理サーバ３は、ネットワーク上のあるカテゴリーや分野等に分類された社会・コミュニティにおけるソーシャルネットワークサービスを管理するためのものである。あるユーザがあるコミュニティに参加する場合には、管理サーバ３に所定の手続きを行い、所定の条件を満たせば、参加が認められる。また、参加が認められると、すでにソーシャルネットワークに参加している友人の紹介等の情報を登録する。管理サーバ３は、その友人情報に基づいてソーシャルネットワークを構成する。

【００３４】

＜ソーシャルネットワークの構成＞

ここで、ソーシャルネットワークの構成について説明する。図２は、本実施例におけるソーシャルネットワークの一構成例を示す図である。図２に示すソーシャルネットワークは、一例として上述した推薦順位選定装置２を使用するユーザを中心としたソーシャルネットワークサービス内での人間関係（友人ネットワーク構成）の例を示したものである。

【００３５】

つまり、管理サーバ３に現在のネットワーク構成を要求することにより、そのソーシャルネットワークに接続可能な他人と、ユーザとの交友関係等とに基づいて設定された人間関係ネットワークを取得することになる。

【００３６】

具体的には、図２に示すように、ユーザにはＡ，Ｂ，Ｃの３人の直接の“友人”が存在し、友人Ａを介してＤ及びＥという２人の“友人の友人”が存在する、更にＤを介してＪ及びＫという２人の“友人の友人の友人”が存在し、Ｊを介してＸ１，Ｘ２，Ｘ３という３人の“友人の友人の友人の友人”が存在する。

【００３７】

このように、人間関係の「距離」だけに注目すれば、図２に示すように、ユーザには直接の「友人」がＡ～Ｃの３人存在し、「友人の友人」がＤ～Ｉの６人存在し、「友人の友人の友人」がＪ～Ｖの１３人存在し、「友人の友人の友人の友人」がＸ１～Ｘ３５の３５人存在していることになる。

【００３８】

つまり、自分（ユーザ）との関係を基準にしてソーシャルネットワークの関係における優先順位を設け、その基準によって各コンテンツの情報に重み付けを行い、推薦情報の順位を選定する。なお、図２に示すようなソーシャルネットワークは、一定時間毎、ある人物のソーシャルネットワークへの参加／不参加等の所定のタイミング等により常時更新さ

れており、ソーシャルネットワークを管理する管理サーバ３等において、一元管理されているものとする。

【００３９】

ユーザは、推薦順位選定装置２のネットワークインタフェース部３０により上述した管理サーバ３にアクセスすることで、ソーシャルネットワークの情報を取得することができる。

【００４０】

次に、本実施例における推薦順位選定装置２の機能構成において、具体的に図を用いて説明する。なお、以下の説明では、ユーザに推薦するコンテンツの一例として番組を扱う場合に限定して説明するが、本発明におけるコンテンツはこれに限定されず、番組以外にも楽曲、商品、ゲーム等の多種のコンテンツであってもよい。

【００４１】

＜重要度算出用取得管理部１０＞

まず、重要度算出用情報取得管理部１０の機能構成について図を用いて説明する。図３は、重要度算出情報取得管理部の機能構成の一例を示す図である。図３に示す重要度算出情報取得管理部１０は、ユーザインタフェース部１０１と、操作内容取得部１０２と、能動的評価取得部１０３と、重要度算出用情報管理部１０４とを有するよう構成されている。

【００４２】

ユーザインタフェース部１０１は、ユーザからの録画予約操作や視聴中における操作、これから視聴する（もしくは視聴した）番組に関する能動的な評価情報等を受信する。また、ユーザインタフェース部１０１は、ユーザから入力された情報を操作内容取得部１０２及び能動的評価取得部１０３に出力する。

【００４３】

操作内容取得部１０２は、ユーザインタフェース部１０１から得られる情報からユーザによる録画予約や視聴における操作内容の情報を取得し、重要度算出用情報管理部１０４に出力する。また、能動的評価取得部１０３は、ユーザインタフェース部１０１を介してユーザが番組に対して行った能動的な評価内容を取得し、重要度算出用情報管理部１０４に出力する。

【００４４】

ここで、能動的な評価とは、例えば番組の放送前（もしくは視聴前）であれば、「この出演者とこの演出家ならば絶対に面白いに違いないので個人的に推薦する。」というような情報であったり、放送後であれば、「視聴したが非常に面白かったので個人的に推薦する」というものや、「視聴したが最高に素晴らしい番組だったので個人的に大推薦する。」というもの、「視聴したが非常につまらない番組だったので低い評価を与える。」というもの等である。なお、ユーザによる番組に対する評価の入力は、必ずしも必要な操作ではなく、各ユーザが積極的に他の友人ユーザに推薦したい場合に行うことができる。なお、上述した評価内容は、直接入力してもよく、予め設定された上述の内容から何れかを選択させるような選択画面を表示してユーザに選択させるようにしてもよい。

【００４５】

重要度算出用情報管理部１０４は、操作内容取得部１０２から受け取った操作情報と、能動的評価取得部１０３から受け取った能動的評価付け操作情報とを管理する。ここで、重要度算出用情報管理部１０４にて管理される情報の一例について図を用いて説明する。図４は、重要度算出情報の一例を示す図である。

【００４６】

図４に示すように、例えば、番組Ａ，Ｂ，Ｃについて、操作内容取得部１０２から得られる情報として、積極的に録画予約をした場合や番組を視聴した場合等の情報を管理する。また、能動的評価取得部１０３から得られる情報として、番組放送前（もしくは視聴前）に個人的の推薦する場合や、視聴後に個人的に推薦する場合、視聴後に個人的に大推薦する場合、視聴後に個人的に低評価する場合等の情報を管理する。

【００４７】
なお、重要度算出用情報管理部１０４にて管理される情報はこれに限定されず、また管理される情報の形態も番組毎に管理しているが、本発明においてはこれに限定されない。例えば、番組の視聴中において、途中で番組がつまらないため、番組の視聴を中止した場合や、番組が録画であって繰り返し視聴した場合等は、それらの情報について管理してもよい。
【００４８】
また、図４に示すような情報は、他の推薦順位選定装置２における推薦順位選定部２０が、そのユーザに対する重要度算出用情報を取得したい場合に必要となる。つまり、他の推薦順位選定装置２から情報取得のリクエストがあった場合、重要度算出用情報管理部１０４は、ネットワークインタフェース部３０から通信ネットワーク４を介して情報を送信する。
【００４９】
＜推薦順位選定部２０＞
次に、推薦順位選定部２０の機能構成について図を用いて説明する。図５は、推薦順位選定部の機能構成の一例を示す図である。図５に示す推薦順位選定部２０は、友人ネットワーク構成情報取得部２０１と、利用友人選択部２０２と、設定状況管理部２０３と、重み付け処理部２０４と、重要度算出用情報取得部２０５と、推薦順位算出部２０６とを有するよう構成されている。
【００５０】
友人ネットワーク構成情報取得部２０１は、ネットワークインタフェース部３０から通信ネットワーク４を介してソーシャルネットワークサービス全体を管理している管理サーバ３等と通信し、ユーザのソーシャルネットワークサービス内の友人ネットワーク構成（ソーシャルネットワークサービス内の人間関係）情報を取得する。また、友人ネットワーク構成情報取得部２０１は、取得したネットワーク構成情報を利用友人選択部２０２に出力する。
【００５１】
利用友人選択部２０２は、推薦順位を算出するうえで、友人ネットワークの中のどの友人（所定の人物）の情報を利用するかを設定する。このとき、利用友人選択部２０２は、設定状況管理部２０３からユーザによって予め設定されている設定内容、及び友人ネットワーク構成情報取得部２０１から得られる友人ネットワーク構成情報の両方の内容に基づいて設定を行うことができる。
【００５２】
例えば、利用友人選択部２０２において、設定状況管理部２０３から受け取った設定内容が“友人の友人の友人”までであり、また、友人ネットワーク構成情報取得部２０１から受け取った友人ネットワーク構成情報が上述した図２に示すソーシャルネットワーク構成であるすると、図２に示す友人ネットワーク構成から推薦順位算出に必要な友人（“友人”と、“友人の友人”と、“友人の友人の友人”）だけを抜き出した友人ネットワーク構成は、図６のようになる。
【００５３】
図６に示す利用する友人ネットワーク構成の一例では、“ユーザの友人の友人の友人”としてＡ～Ｖの計２２人が選択されている。そのため、この友人から得られる情報により番組の推薦順位の選定が行われることになる。
【００５４】
なお、利用する友人の選択方法についてはこれに限定されず、例えば図６における友人Ａ、Ｄ、Ｋ，Ｊのみを選定してもよく、また、ネットワークにおいて、“友人の友人”以外のＡ，Ｋ，Ｊのみを選定してもよい。また、予め所定のネットワーク範囲において、グループを設定しておき、そのグループ単位で利用するか否かを設定してもよい。
【００５５】
利用友人選択部２０２は、選択された友人の情報を重要度算出用情報取得部２０５に出

力する。

【００５６】

重み付け処理部２０４は、設定状況管理部２０３から得られた推薦順位の算出に利用する各友人に対し、ユーザと各友人との友人ネットワーク上での距離等に応じて重み付け処理をするものである。ここで、重み付け処理部２０４における重み付けの例について図を用いて説明する。

【００５７】

図７は、重み付け値の設定の一例を示す図である。図７（ａ）～（ｄ）に示す例は、少なくとも本人（ユーザ）からのネットワーク距離と、ユーザにとの関係と、ユーザにとの関係に対する重み付け値が設定されている。

【００５８】

具体的に説明すると、図７（ａ）は、ユーザの直接の友人を重視して重み付けを設定した例を示すものである。つまり、直接の「友人」はユーザにとって重要な存在なので「友人」は重み付けを“５”とし、「友人の友人」は“２”とし、「友人の友人の友人」は“１”として、ユーザからの距離が遠くなるにしたがって重み付けを低く設定する。また、図７（ｂ）は、ユーザからのネットワーク上の距離に基づいて“５”→“３”→“１”と比例させて重み付け値を設定した例を示しものである。また、図７（ｃ）は、ユーザからの距離等に関係なく、一定した重み付け値の設定を行った例である。なお、図７（ｃ）に示すような設定を行うことで、世間一般で広く流行している番組を探すことができる。

【００５９】

更に、図７（ｄ）は、友人（Ａ，Ｂ，Ｃ）の中でも、“Ｂ”がユーザにとって一番の親友である場合や、“Ｂ”と近日中に会うような場合、又は他薦情報を取得する際にある分野においては“Ｂ”が友人の中で一番詳しい等の場合、友人の中でも友人Ｂを特に重み付けを大きく設定することができる。また同様に友人の友人（Ｄ，Ｅ，Ｆ，Ｇ，Ｈ，Ｉ）においても、例えば友人の友人（Ｄ，Ｇ，Ｈ）においては、友人の友人（Ｅ，Ｆ，Ｉ）よりも重み付けを大きくするような設定を行うことができる。

【００６０】

ユーザは、重み付け処理部２０４において、図７（ａ）～（ｄ）に示すような重み付けを行うことにより、様々な条件において、他薦情報を取得することができる。

【００６１】

なお、重み付け値の設定方法は、図７に示す内容に限定されない。どのようなポリシーで重み付けをするかは、設定状況管理部２０３からユーザによって予め設定された設定内容を受け取り、この設定内容に基づいて設定される。また、重み付け処理部２０４は、設定された重み付けの情報を推薦順位算出部２０６に出力する。

【００６２】

設定状況管理部２０３は、上述したように推薦順位算出に利用する友人の範囲や、どのようなポリシーで重み付けを行うか等のユーザによって予め設定されている設定内容を管理し、利用友人選択部２０２、重み付け処理部２０４、及び後述する推薦順位算出部２０６に必要な情報を出力する。

【００６３】

また、重要度算出用情報取得部２０５は、利用友人決定部２０２から推薦順位算出にどの友人を利用するかの情報を受け取り、この情報にしたがってネットワークインタフェース部３０から通信ネットワーク４を介して、必要な全て友人の推薦順位選定装置２と通信し、重要度算出用情報を取得する。なお、上述した管理サーバ３や他のサーバで、各推薦順位選定装置２－１～２－ｎの重要度算出用情報を一元管理しているような場合には、それらのサーバから重要度算出用情報を取得する。また、重要度算出用情報取得部２０５は、取得した重要度算出用情報を推薦順位算出部２０６に出力する。

【００６４】

ここで、重要度算出用情報取得部２０５が、ユーザの友人のシステムから受け取り推薦順位算出部２０６に出力する情報は、上述した図４に示す情報となる。つまり、ユーザの

友人が各番組に対して行った「録画予約」操作、「番組視聴」操作等の一般的な操作の情報、及び、ユーザの友人が各番組に対して行った能動的な評価付け操作の情報である。推薦順位算出部２０６は、利用友人選択部２０２において設定した友人毎に得られる各番組の重要度を重要度設定基準に基づいて決定する。

【００６５】

なお、どのような重要度決定基準で重要度を決定するかは、設定状況管理部２０３内の設定内容を参照し推薦順位算出部２０６が設定する。ここで、重要度設定基準の例について図を用いて説明する。

【００６６】

図８は、重要度設定基準の一例を示す図である。なお、図８に示す重要度設定基準の設定内容は、操作時期と、各ユーザの操作内容と、操作内容に対応する重要度とからなる。ここで、図８（ａ）は、各人の能動的評価を重視した重要度の設定例を示しており、図８（ｂ）は、各人の視聴動向を重視した重要度の設定例、つまり、各友人が番組を見たかどうかを重視した重要度の設定例を示している。なお、図８に示すように、各ユーザの操作に基づいて重要度の加算値及び減算値（加算及び減算を行わない場合は“０”）を設定する。

【００６７】

推薦情報順位算出部２０６は、重要度算出用情報取得部２０５から受け取ったユーザの友人による各番組に対する操作情報から上述にて説明したようにして設定した各友人にとっての各番組の重要度の値と、重み付け処理部２０４から受け取った各友人の重み付け値とから、推薦順位を算出する。ここで、推薦情報順位算出部２０６における推薦順位算出例について図を用いて説明する。

【００６８】

図９は、各友人における重み付け値と重要度との関係の一例を示す図である。なお、図９では、番組１から番組５までの５つの番組について推薦順位を選定する例を示すが、本実施例において、番組数やコンテンツの内容についてはこれに限定されない。

【００６９】

図９は、利用友人選択部２０２で設定される上述の図６に示すネットワーク構成に対応する各友人（ｐｅｒｓｏｎＡ～Ｖ）において、推薦順位算出部２０６が重み付け処理部２０４から受け取った各友人の重み付け値と、各友人の操作内容等から設定された番組の重要度を示している。

【００７０】

なお、図９に示す各友人の重み付け値は、図７（ａ）に示す重み付け値を採用した例を示している。また、図９に示す各番組の重要度は、番組１から番組５までの５つの番組に対して、各友人による各番組に対する操作情報から図８（ａ）に示したような重要度決定基準に基づき設定した友人毎の各番組の重要度の値を示している。

【００７１】

ここで、図８（ａ）の場合、例えばｐｅｒｓｏｎＡの番組１について、積極的に録画予約操作をして（＋１）、実際に番組を視聴した（＋１）が、能動的な評価付け操作は行わなかった（０）場合、重要度の値は“１＋１＋０＝２”と算出される。このようにして、各友人の各番組の重要度を設定する。

【００７２】

図９の例の場合、ｐｅｒｓｏｎＡはユーザにとって直接の友人であるので重み付け値は“５”であり、ｐｅｒｓｏｎＡにとっての番組１の重要度の値は“２”であり、番組２の重要度の値は“５”であり、番組３の重要度の値は“１”であり、番組４の重要度の値は“３”であり、番組５の重要度の値は“５”である。

【００７３】

次に、推薦順位算出部２０６は、上述した友人に対する相手との距離による重み付け値と、各番組の重要度との乗算を行い（重み付け値×各番組の重要度）、算出した値から各番組毎の合計を算出する。

【００７４】
ここで、図１０は、図９に基づくユーザ本人における重要度の算出結果の一例を示す図である。図１０において、結果として得られた合計値が大きいものは、ユーザの友人達の中で高い評価を得ている、あるいは、ユーザの友人達の多くに視聴されていると判断することができる。そのため、推薦順位算出部２０６は、この合計値に基づいて各番組をソートし、合計値が大きい順に推薦順位を選定する。図１０の例の場合、５つの番組の推薦順位は合計値の大きい順に、番組２（１７８）→番組５（１６９）→番組４（１２８）→番組１（９７）→番組３（８２）となる。
【００７５】
以上のようにして得られた推薦順位を利用し、例えば放送前（もしくは視聴前）であれば、推薦順位が高く録画予約されていない番組は、自動的に録画予約をするように録画装置等に制御情報を出力することができる。また、放送後であれば、録画済みではあるが未視聴の番組を推薦順位にしたがってユーザに提示することで推薦することができる。なお、推薦順位算出部２０６は、順位付けされた番組のうち、例えば、第１位～第３位までの番組、又は第５位の番組のみといったように、予め設定した順位のコンテンツの情報を出力してもよい。これにより、ユーザが必要とするコンテンツの情報のみを効率的にユーザに提示することができる。
【００７６】
上述したように、推薦順位選定装置２により、ユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。
【００７７】
＜推薦順位選定プログラム＞
ここで、本発明における推薦順位選定装置２は、上述した専用の装置構成等を用いて本発明における推薦順位選定処理を行うこともできるが、各構成における処理をコンピュータに実行させることができる実行プログラムを生成し、例えば、汎用のパーソナルコンピュータ、ワークステーション等にそのプログラムをインストールすることにより、上述した推薦順位選定処理を実現することができる。
【００７８】
＜ハードウェア構成＞
ここで、本発明における推薦順位選定処理が実行可能なコンピュータのハードウェア構成例について図を用いて説明する。図１１は、本発明における推薦順位選定処理が実現可能なハードウェア構成の一例を示す図である。
【００７９】
図１１におけるコンピュータ本体には、入力装置３０１と、出力装置３０１と、ドライブ装置３０３と、補助記憶装置３０４と、メモリ装置３０５と、各種制御を行うＣＰＵ（Ｃｅｎｔｒａｌ　Ｐｒｏｃｅｓｓｉｎｇ　Ｕｎｉｔ）３０６と、ネットワーク接続装置３０７とを有するよう構成され、これらはシステムバスＢで相互に接続されている。
【００８０】
入力装置３０１は、ユーザが操作するキーボード及びマウス等のポインティングデバイスを有しており、ユーザからのプログラムの実行等、各種操作信号を入力する。出力装置３０２は、本発明における処理を行うためのコンピュータ本体を操作するのに必要な各種ウィンドウやデータ等を表示するディスプレイ（モニタ）を有し、ＣＰＵ３０６が有する制御プログラムにより本発明における処理の実行経過や結果等を表示することができる。
【００８１】
ここで、本発明において、コンピュータ本体にインストールされる実行プログラムは、例えば、ＣＤ－ＲＯＭ等の記録媒体３０８等により提供される。プログラムを記録した記録媒体３０８は、ドライブ装置３０３にセット可能であり、記録媒体３０８に含まれる実行プログラムが、記録媒体３０８からドライブ装置３０３を介して補助記憶装置３０４にインストールされる。
【００８２】

また、ドライブ装置３０３は、本発明に係る推薦順位選定プログラムを記録媒体３０８に記録することができる。これにより、その記録媒体３０８を用いて、他の複数のコンピュータに容易にインストールすることができ、容易に推薦順位選定処理を実現することができる。

【００８３】

補助記憶装置３０４は、ハードディスク等のストレージ手段であり、本発明における実行プログラムや、コンピュータに設けられた制御プログラム等を蓄積し必要に応じて入出力を行うことができる。また、補助記憶装置３０４は、上述した重要度算出用情報管理部１０４や設定状況管理部２０３において管理される各種情報等を蓄積する蓄積手段として用いることもできる。

【００８４】

ＣＰＵ３０６は、ＯＳ（Ｏｐｅｒａｔｉｎｇ　Ｓｙｓｔｅｍ）等の制御プログラム、及びメモリ装置３０５により読み出され格納されている実行プログラムに基づいて、各種演算や各ハードウェア構成部とのデータの入出力等、コンピュータ全体の処理を制御して、推薦順位選定処理における各処理を実現することができる。また、プログラムの実行中に必要な各種情報等は、補助記憶装置３０４から取得することができ、また格納することもできる。

【００８５】

ネットワーク接続装置３０７は、電話回線やＬＡＮケーブル等の通信ネットワーク等と接続することにより、実行プログラムを通信ネットワークに接続されている他の端末等から取得したり、プログラムを実行することで得られた実行結果又は本発明における実行プログラムを他の端末等に提供することができる。

【００８６】

上述したようなハードウェア構成により、特別な装置構成を必要とせず、低コストで上述した推薦順位選定処理を実現することができる。また、プログラムをインストールすることにより、容易に推薦順位選定処理を実現することができる。

【００８７】

＜推薦順位選定処理手順＞

次に、実行プログラムにおける推薦順位選定処理手順についてフローチャートを用いて説明する。なお、後述する処理手順では、推薦するコンテンツの一例として番組を例に説明するが、本発明においてはこの限りではない。また、ユーザが番組の視聴に基づく操作内容と、ユーザが能動的に評価した評価内容とが重要度算出用情報として、すでに管理されているものとする。

【００８８】

図１２は、本発明における推薦順位選定処理手順を示すフローチャートである。なお、まず、現在のソーシャルネットワーク構成情報を取得する（Ｓ０１）。なお、ネットワーク構成情報の取得については、例えば、ネットワーク構成を管理する管理サーバ等に要求を行うことにより取得することができる。次に、Ｓ０１にて取得したネットワーク構成から、どの友人までを利用対象とするかを判断して利用する友人を選択する（Ｓ０２）。

【００８９】

次に、Ｓ０２にて選択された友人に対して、その相手（所定の人物、友人）との距離に基づく重み付け値を設定する（Ｓ０３）。また、Ｓ０２にて選択された友人に対して利用する各友人における各番組の重要度を算出するための重要度情報を取得する（Ｓ０４）。

【００９０】

次に、Ｓ０３にて設定された重み付け値と、Ｓ０４にて得られる各友人からの各番組の重要度とに基づいて、各友人の各番組に対する重要度を算出し、番組毎に合計を算出する（Ｓ０５）。また、算出された合計値に基づいて番組を降順にソート（並べ替え）し（Ｓ０６）、選定された番組の推薦順位について上位から予め設定された順位までの番組を推薦番組としてディスプレイ等に提示する（Ｓ０７）。

【００９１】

上述したように、推薦順位選定処理手順により、ユーザと相手（所定の人物）との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。また、プログラムをインストールすることにより、容易に推薦順位選定処理を実現することができる。

【００９２】

上述したように本発明によれば、ユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。具体的には、ソーシャルネットワークシステムにおける人間関係の距離に基づいて、高精度にコンテンツの推薦順位を選定することができる。ソーシャルネットワークサービス内での自分と友人との距離と、各友人にとってのコンテンツの重要度とから、ユーザ本人にとっての重要度を算出し、算出された重要度によりユーザにコンテンツを推薦することによって、自分の友人達の間で人気のあるコンテンツが自動的にユーザに対して推薦される。また、自分の友人達の間で人気のある番組を自動的に録画しておく等の処理を行うことができる。

【００９３】

以上本発明の好ましい実施例について詳述したが、本発明は係る特定の実施形態に限定されるものではなく、特許請求の範囲に記載された本発明の要旨の範囲内において、種々の変形、変更が可能である。

【図面の簡単な説明】

【００９４】

【図１】推薦順位選択システムの一構成例を示す図である。

【図２】本実施例におけるソーシャルネットワークの一構成例を示す図である。

【図３】重要度算出情報取得管理部の機能構成の一例を示す図である。

【図４】重要度算出情報の一例を示す図である。

【図５】推薦順位選定部の機能構成の一例を示す図である。

【図６】利用する友人ネットワーク構成の一例を示す図である。

【図７】重み付け値の設定の一例を示す図である。

【図８】重要度設定基準の一例を示す図である。

【図９】各友人における重み付け値と重要度との関係の一例を示す図である。

【図１０】図９に基づくユーザ本人における重要度の算出結果の一例を示す図である。

【図１１】本発明における推薦順位選定処理が実現可能なハードウェア構成の一例を示す図である。

【図１２】本発明における推薦順位選定処理手順を示すフローチャートである。

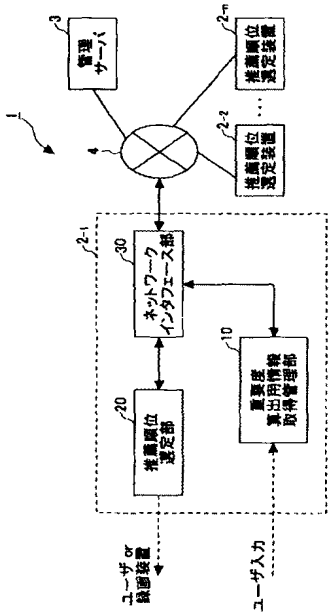
【符号の説明】

【００９５】

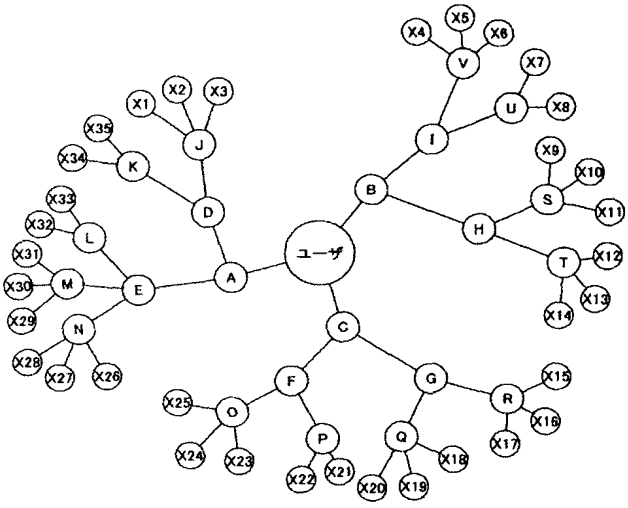
１　推薦順位選定システム
２　推薦順位選定装置
３　管理サーバ
４　通信ネットワーク
１０　重要度算出用情報取得管理部
２０　推薦順位選定部
３０　ネットワークインタフェース部
１０１　ユーザインタフェース部
１０２　操作内容取得部
１０３　能動的評価取得部
１０５　重要度算出用情報管理部
２０１　友人ネットワーク構成情報取得部
２０２　利用友人選択部
２０３　設定状況管理部
２０４　重み付け処理部
２０５　重要度算出用情報取得部
２０６　推薦順位算出部

３０１　入力装置
３０２　出力装置
３０３　ドライブ装置
３０４　補助記憶装置
３０５　メモリ装置
３０６　ＣＰＵ
３０７　ネットワーク接続装置
３０８　記録媒体

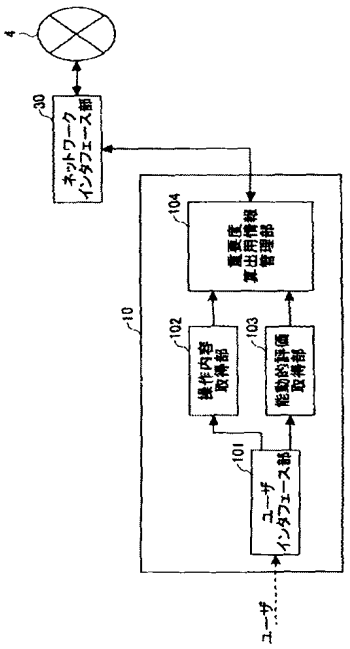
【図１】



【図２】



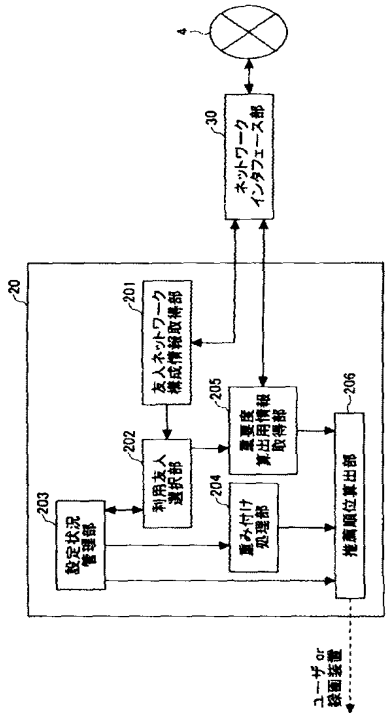
【図３】



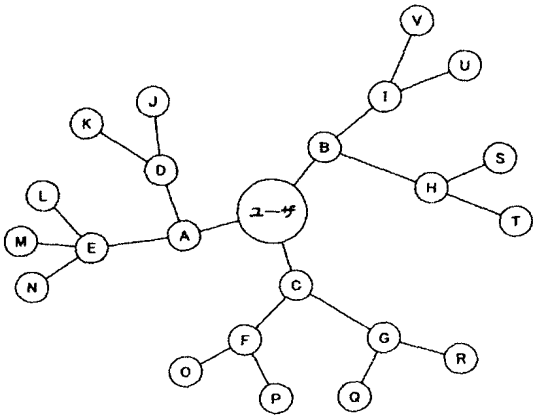
【図４】

番組名	積極的に録画予約をした	個人的に推薦（番組放送前）	番組を視聴した	個人的に推薦（番組視聴後）	個人的に大推薦（番組視聴後）	個人的に低評価（番組視聴後）	…
番組A	○	○	○	○			…
番組B	○		○				…
番組C			○			○	…
…	…	…	…	…	…	…	…

【図５】



【図６】



【図７】

(a)

距離	ユーザとの関係	重み付け値
1	友人	5
2	友人の友人	2
3	友人の友人の友人	1

(b)

距離	ユーザとの関係	重み付け値
1	友人	5
2	友人の友人	3
3	友人の友人の友人	1

(c)

距離	ユーザとの関係	重み付け値
1	友人	3
2	友人の友人	3
3	友人の友人の友人	3

(d)

距離	ユーザとの関係	重み付け値
1	友人(B)	8
	友人(A,C)	8
2	友人の友人(D,G,H)	5
	友人の友人(E,F,I)	2
3	友人の友人の友人	1

【図８】

(a)

操作時期	各ユーザの操作	重要度加算・減算
番組放送前	積極的に録画予約をした	+1
	個人的に推薦(能動的加算操作)	+2
番組放送後	番組を視聴した	+1
番組視聴後	個人的に推薦(能動的加算操作)	+3
	個人的に大推薦(能動的加算操作)	+5
	個人的に低評価(能動的減算操作)	-3
・・・	・・・	・・・

(b)

操作時期	各ユーザの操作	重要度加算・減算
番組放送前	積極的に録画予約をした	+1
	個人的に推薦(能動的加算操作)	+1
番組放送後	番組を視聴した	+3
番組視聴後	個人的に推薦(能動的加算操作)	+1
	個人的に大推薦(能動的加算操作)	+2
	個人的に低評価(能動的減算操作)	0
・・・	・・・	・・・

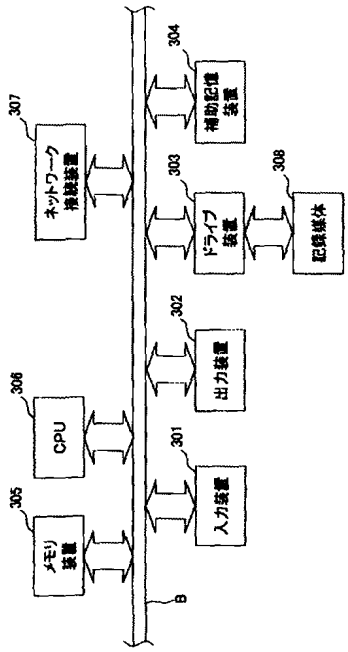
【図９】

Person	相手との距離による重み付け値	各番組の重要度				
		番組1	番組2	番組3	番組4	番組5
A	5	2	5	1	3	5
B	5	1	5	1	3	4
C	5	2	5	2	3	5
D	2	3	5	1	5	4
E	2	3	5	2	4	2
F	2	2	4	3	3	4
G	2	2	5	2	4	5
H	2	4	4	2	3	5
I	2	3	5	3	3	3
J	1	4	4	3	3	4
K	1	2	4	2	4	5
L	1	5	3	1	4	5
M	1	4	3	1	2	2
N	1	3	5	2	3	5
O	1	4	5	1	1	4
P	1	2	5	3	3	3
Q	1	1	4	3	1	5
R	1	1	1	5	4	5
S	1	3	3	4	3	3
T	1	4	3	4	5	4
U	1	2	2	3	2	5
V	1	3	5	4	4	4

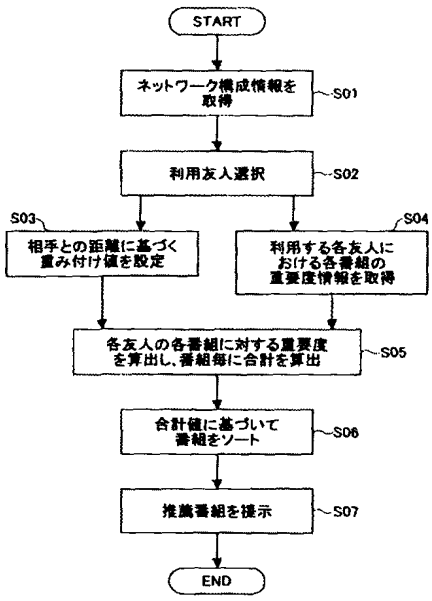
【図１０】

Person	(相手との距離による重み付け値)×(各番組の重要度)				
	番組1	番組2	番組3	番組4	番組5
A	10	25	5	15	25
B	5	25	5	15	20
C	10	25	10	15	25
D	6	10	2	10	8
E	6	10	4	8	4
F	4	8	6	6	8
G	4	10	4	8	10
H	8	8	4	6	10
I	6	10	6	6	6
J	4	4	3	3	4
K	2	4	2	4	5
L	5	3	1	4	5
M	4	3	1	2	2
N	3	5	2	3	4
O	4	5	1	1	4
P	2	5	3	3	3
Q	1	4	3	1	5
R	1	1	5	4	5
S	3	3	4	3	3
T	4	3	4	5	4
U	2	2	3	2	5
V	3	5	4	4	4
合計	97	178	82	128	169

【図１１】


304
補助記憶装置
307
ネットワーク接続装置
303
ドライブ装置
308
記録媒体
302
出力装置
306
CPU
301
入力装置
305
メモリ装置
B

【図１２】


START
ネットワーク構成情報を取得
S01
利用友人選択
S02
S03
相手との距離に基づく重み付け値を設定
S04
利用する各友人における各番組の重要度情報を取得
各友人の各番組に対する重要度を算出し、番組毎に合計を算出
S05
合計値に基づいて番組をソート
S06
推薦番組を提示
S07
END

(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **2006309660 A**

(43) Date of publication of application: **09.11.06**

(51) Int. Cl **G06F 17/30 20060101**
G06Q 30/00 20060101

(21) Application number: **2005134272**

(22) Date of filing: **02.05.05**

(71) Applicant: **NIPPON HOSO KYOKAI <NHK>**

(72) Inventor: **UENO MIKIHIRO**
KIMURA TAKESHI

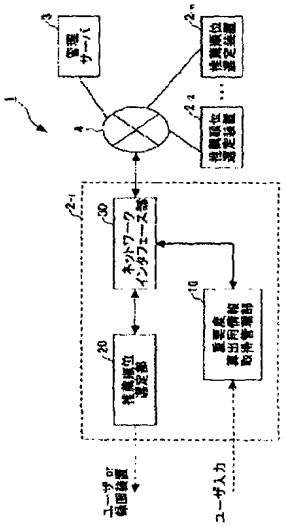
(54) RECOMMENDATION ORDER SELECTION DEVICE, RECOMMENDATION ORDER SELECTION PROGRAM RECOMMENDATION ORDER SELECTION DEVICE AND RECOMMENDATION ORDER SELECTION PROGRAM

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a recommendation order selection device and a recommendation order selection program, for selecting recommendation order of a content with high accuracy on the basis of relation between a user and an opposite party.

SOLUTION: This recommendation order selection device acquiring information from a prescribed person via a prescribed network and selecting the recommendation order of the content by the acquired information has: an importance level-calculating information acquisition management part allowing the prescribed person to acquire importance level-calculating information for calculating an importance level of the content by input of the user and to manage it; and a recommendation order selection part selecting the recommendation order of the content on the basis of the importance level-calculation information acquired from the prescribed person and a preset weighting value to the prescribed person.

COPYRIGHT: (C)2007,JPO&INPIT



(19)日本国特許庁(JP)　(12)公開特許公報(A)　(11)特許出願公開番号
特開2006-309660
(P2006-309660A)
(43)公開日　平成18年11月9日(2006.11.9)

(51)Int.Cl.		F I			テーマコード（参考）
G06F 17/30	(2006.01)	G06F	17/30	340A	5B075
G06Q 30/00	(2006.01)	G06F	17/60	302E	
		G06F	17/60	326	
		G06F	17/60	330	

審査請求 未請求　請求項の数 7　OL　（全 17 頁）

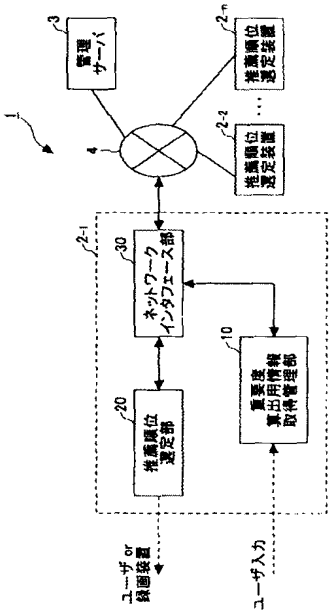
(21)出願番号　特願2005-134272 (P2005-134272)
(22)出願日　平成17年5月2日 (2005.5.2)

(71)出願人　000004352
日本放送協会
東京都渋谷区神南２丁目２番１号
(74)代理人　100070150
弁理士　伊東　忠彦
(72)発明者　上野　幹大
東京都世田谷区砧一丁目１０番１１号　日本放送協会放送技術研究所内
(72)発明者　木村　武史
東京都世田谷区砧一丁目１０番１１号　日本放送協会放送技術研究所内

Fターム(参考)　5B075 ND12　UU34

(54)【発明の名称】推薦順位選定装置及び推薦順位選定プログラム推薦順位選定装置及び推薦順位選定プログラム

(57)【要約】
【課題】高精度にコンテンツの推薦順位を選定する。
【解決手段】所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定装置において、前記所定の人物が前記コンテンツの重要度を算出するための重要度算出用情報を、ユーザの入力により取得し管理する重要度算出用情報取得管理部と、前記所定の人物から取得した重要度算出用情報と、予め設定される前記所定の人物に対する重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定部とを有することにより、上記課題を解決する。
【選択図】　図１



【特許請求の範囲】
【請求項１】
所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定装置において、
前記所定の人物が前記コンテンツの重要度を算出するための重要度算出用情報を、ユーザの入力により取得し管理する重要度算出用情報取得管理部と、
前記所定の人物から取得した重要度算出用情報と、予め設定される前記所定の人物に対する重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定部とを有することを特徴とする推薦順位選定装置。
【請求項２】
前記重要度算出用情報取得管理部は、
前記ユーザが前記コンテンツに対して評価した評価情報を取得する評価取得部と、
前記コンテンツに対する前記ユーザの操作内容を取得する操作内容取得部とを有することを特徴とする請求項１に記載の推薦順位選定装置。
【請求項３】
前記推薦順位選定部は、
前記ネットワークの構成情報を取得するネットワーク構成情報取得部と、
前記ネットワーク構成情報取得部により得られるネットワーク構成から利用する友人を選択する友人情報選択部と、
前記友人情報選択部により選択した友人毎における前記重要度算出用情報を取得する重要度算出用情報取得部と、
前記友人情報選択部により選択した友人毎に重み付け値を設定する重み付け処理部と、
前記友人毎の前記重要度算出用情報と、前記重み付け値とに基づいて推薦順位の算出を行う推薦順位算出部とを有することを特徴とする請求項１又は２に記載の推薦順位選定装置。
【請求項４】
前記重み付け処理部は、
前記ネットワーク構成上における前記友人と前記ユーザとの距離に基づいて、前記友人の重み付けを設定することを特徴とする請求項３に記載の推薦順位選定装置。
【請求項５】
前記推薦順位算出部は、
前記友人毎の重要度算出情報における前記操作内容及び／又は前記評価情報に基づいて前記友人毎の前記コンテンツに対する重要度を算出することを特徴とする請求項３又は４に記載の推薦順位選定装置。
【請求項６】
前記推薦順位算出部は、
前記重要度を前記コンテンツ毎に合計して得られた値に基づいて、前記コンテンツを順位付けし、予め設定した順位のコンテンツの情報を出力することを特徴とする請求項５に記載の推薦順位選定装置。
【請求項７】
所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定処理をコンピュータに実行させるための推薦順位選定プログラムにおいて、
前記所定の人物を選定する所定人物選定処理と、
前記所定人物選定処理により得られる所定の人物に対して重み付け値を設定する重み付け処理と、
前記所定の人物から、前記コンテンツに対する重要度算出用情報を取得する重要度情報取得処理と、
前記重要度算出用情報と、前記重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定処理とをコンピュータに実行させるための推薦順位選定プログラム

。

【発明の詳細な説明】
【技術分野】
【０００１】
本発明は、推薦順位選定装置及び推薦順位選定プログラムに係り、特にユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定するための推薦順位選定装置及び推薦順位選定プログラムに関する。
【背景技術】
【０００２】
従来、番組等の提供情報をユーザに推薦する技術として、ユーザが過去に録画予約した番組や視聴した番組の履歴情報を記録しておき、この録画予約操作における履歴情報や視聴履歴情報、ユーザが予めプリセットしておいたユーザ自身の属性やキーワードの情報に基づいて、ユーザが能動的に録画予約操作をしなくてもＥＰＧ（Ｅｌｅｃｔｒｉｃ Ｐｒｏｇｒａｍ Ｇｕｉｄｅ）等を参照してユーザが好みそうな番組を検索し自動的に録画して推薦情報として提示する技術がある。
【０００３】
また、インターネット上の販売店においては、客が一度に購入した複数の商品を記録しておき、その商品を紹介する画面上に、その商品を過去に購入した客の多くが同時に購入している別の商品も表示させて、客に商品を推薦する技術がある。
【０００４】
また、番組の編集システムにおいては、ユーザの嗜好や興味と、客観的な話題性との両方を考慮した情報を提供するために、ユーザ以外の対象に関する他対象情報に基づいて番組情報記憶手段の中から番組情報を検索し、検索手段で索出した番組情報に基づいてユーザへの提供番組を編集する番組編集手段を有する技術がある（例えば、特許文献１参照。）。
【特許文献１】特開２００３－１９９０８４号公報
【発明の開示】
【発明が解決しようとする課題】
【０００５】
ところで、従来技術においては、上述したようにユーザの録画予約操作における履歴情報等や、ユーザの属性、キーワードの情報に基づいて自動的に番組を録画する場合、ユーザの自身の趣味や嗜好にあった番組は自動的に録画される。しかしながら、ユーザ自身の趣味や嗜好にはあっていないものの、例えばユーザの友人等の多くが録画予約した番組や、ユーザの友人の多くが実際に視聴した番組等があった場合、このような番組は自動的には録画されることはない。したがって、例えば、後日友人が話題にした番組は、すでに放送されており結果として自分の友人の多くが視聴し話題にした番組を見ることができないという状態が発生してしまう。
【０００６】
一方、上述したインターネット上の販売店の例においては、ユーザと似た趣味や嗜好のユーザとは関連のない他人が購入した商品を知ることはできるが、その他人が友人であるかどうかは不明であるため、ユーザの友人の多くが購入した商品等を区別して知ることはできない。
【０００７】
また、特許文献１に記載された技術も、従来技術ではユーザ自身の親しい友人達の中で人気のある番組や楽曲、商品等のコンテンツを知ることはできず、これらの情報を知るためには実際に会話したり、電子メールやインターネット上の掲示板等でのやり取り等、直接的な情報伝達により相手から伝えてもらわなければならなかった。このため、自分の親しい友人達の多くが好んで視聴している番組や楽曲や自分の親しい友人達の多くが購入した商品を自分だけが知らずにいるような状況が発生してしまうという問題があった。

【０００８】
ここで、最近では、インターネット等に代表される通信ネットワーク上において友人関係・知人関係が構築されたソーシャルネットワークサービスが存在し、ソーシャルネットワークサービス内では、“友人”、“友人の友人”、“友人の友人の友人”、“友人の友人の友人の友人”等といったように、自分（ユーザ）と相手（友人）との人間関係の距離を明確に把握することができる。したがって、この距離情報に基づいて番組や楽曲、商品等のコンテンツを推薦することができれば、高精度な情報の提供を実現することが考えられる。しかしながら、従来では上述のネットワークは利用されていない。

【０００９】
本発明は、上記の問題点に鑑みてなされたものであって、ユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定するための推薦順位選定装置及び推薦順位選定プログラムを提供することを目的とする。

【課題を解決するための手段】

【００１０】
上記課題を解決するために、本件発明は、以下の特徴を有する課題を解決するための手段を採用している。

【００１１】
請求項１に記載された発明は、所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定装置において、前記所定の人物が前記コンテンツの重要度を算出するための重要度算出用情報を、ユーザの入力により取得し管理する重要度算出用情報取得管理部と、前記所定の人物から取得した重要度算出用情報と、予め設定される前記所定の人物に対する重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定部とを有することを特徴とする。

【００１２】
請求項１記載の発明によれば、ユーザと相手（所定の人物）との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。

【００１３】
請求項２に記載された発明は、前記重要度算出用情報取得管理部は、前記ユーザが前記コンテンツに対して評価した評価情報を取得する評価取得部と、前記コンテンツに対する前記ユーザの操作内容を取得する操作内容取得部とを有することを特徴とする。

【００１４】
請求項２記載の発明によれば、ユーザが設定したコンテンツに対する操作内容及び／又は評価情報を他の推薦順位選定装置に提供することができる。これにより、コンテンツにおける重要度の設定を高精度に行うことができる。

【００１５】
請求項３に記載された発明は、前記推薦順位選定部は、前記ネットワークの構成情報を取得するネットワーク構成情報取得部と、前記ネットワーク構成情報取得部により得られるネットワーク構成から利用する友人を選択する友人情報選択部と、前記友人情報選択部により選択した友人毎における前記重要度算出用情報を取得する重要度算出用情報取得部と、前記友人情報選択部により選択した友人毎に重み付け値を設定する重み付け処理部と、前記友人毎の前記重要度算出用情報と、前記重み付け値とに基づいて推薦順位の算出を行う推薦順位算出部とを有することを特徴とする。

【００１６】
請求項３記載の発明によれば、ネットワーク上に構築されている友人関係・知人関係の情報に基づいて高精度に推薦順位の算出を行うことができる。これにより、自分の友人の多くが視聴したコンテンツ等の情報を取得することができる。

【００１７】
請求項４に記載された発明は、前記重み付け処理部は、前記ネットワーク構成上における前記友人と前記ユーザとの距離に基づいて、前記友人の重み付けを設定することを特徴とする。

【００１８】
請求項４記載の発明によれば、友人との人間関係の距離に基づいて、ユーザが所望するコンテンツを取得することができる。
【００１９】
請求項５に記載された発明は、前記推薦順位算出部は、前記友人毎の重要度算出情報における前記操作内容及び／又は前記評価情報に基づいて前記友人毎の前記コンテンツに対する重要度を算出することを特徴とする。
【００２０】
請求項５記載の発明によれば、友人毎の前記コンテンツに対する重要度を取得することができる。これにより、より高精度にコンテンツの推薦順位を選定することができる。
【００２１】
請求項６に記載された発明は、前記推薦順位算出部は、前記重要度を前記コンテンツ毎に合計して得られた値に基づいて、前記コンテンツを順位付けし、予め設定した順位のコンテンツの情報を出力することを特徴とする。
【００２２】
請求項６記載の発明によれば、ユーザが必要とするコンテンツの情報のみを効率的にユーザに提示することができる。
【００２３】
請求項７に記載された発明は、所定のネットワークを介して所定の人物から情報を取得し、取得した情報によりコンテンツの推薦順位を選定する推薦順位選定処理をコンピュータに実行させるための推薦順位選定プログラムにおいて、前記所定の人物を選定する所定人物選定処理と、前記所定人物選定処理により得られる所定の人物に対して重み付け値を設定する重み付け処理と、前記所定の人物から、前記コンテンツに対する重要度算出用情報を取得する重要度情報取得処理と、前記重要度算出用情報と、前記重み付け値とに基づいて、前記コンテンツの推薦順位を選定する推薦順位選定処理とをコンピュータに実行させる。
【００２４】
請求項７記載の発明によれば、ユーザと相手（所定の人物）との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。また、プログラムをインストールすることにより、容易に推薦順位選定処理を実現することができる。
【発明の効果】
【００２５】
本発明によれば、ユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。
【発明を実施するための最良の形態】
【００２６】
以下に、上記のような特徴を有する本発明における推薦順位選定装置及び推薦順位選定プログラムを好適に実施した形態について、図面を用いて詳細に説明する。
【００２７】
＜実施例＞
図１は、推薦順位選択システムの一構成例を示す図である。図１に示す推薦順位選択システム１は、１以上の推薦順位選定装置２－１～２－ｎと、後述するソーシャルネットワークを管理する管理サーバ３とを有するよう構成されており、推薦順位選定装置２と、管理サーバ３とは、インターネット等に代表される通信ネットワーク４を介してデータの送受信が可能な状態で接続されている。
【００２８】
また、推薦順位選定装置２－１～２－ｎは、重要度算出用取得管理部１０と、推薦順位選定部２０と、ネットワークインタフェース部３０とを有するよう構成されている。
【００２９】
なお、上述するシステム構成においては、番組や楽曲等のコンテンツを推薦順位選定装

置２－１～２－ｎに提供するコンテンツサーバ等が設けられていてもよく、管理サーバ３がコンテンツの提供を行ってもよい。

【００３０】

ここで、推薦順位選定装置２において、重要度算出用取得管理部１０は、ソーシャルネットワーク上の他のユーザが使用する他の推薦順位選定装置２が、コンテンツの推薦順位を選定するために必要な情報を取得・管理し、他の推薦順位選定装置２からの情報取得リクエストに応じて情報を出力する。

【００３１】

また、推薦順位選定部２０は、コンテンツの推薦順位を選定し、ディスプレイ等を介してユーザに提示するか、録画装置等を用いて自動録画の指示等を出力する。なお、コンテンツの推薦順位の選定については、友人等の所定の人物とのソーシャルネットワークサービス内での距離、及び各友人における各コンテンツの重要度等により推薦順位を選定する。

【００３２】

また、ネットワークインタフェース部３０は、推薦順位選定部２０及び重要度算出用情報取得管理部２０の要求に応じて通信ネットワーク４を介して他の推薦順位選定装置２やソーシャルネットワークサービス全体を管理する管理サーバ３と通信を行い、情報のやり取りを行う。

【００３３】

ここで、管理サーバ３は、ネットワーク上のあるカテゴリーや分野等に分類された社会・コミュニティにおけるソーシャルネットワークサービスを管理するためのものである。あるユーザがあるコミュニティに参加する場合には、管理サーバ３に所定の手続きを行い、所定の条件を満たせば、参加が認められる。また、参加が認められると、すでにソーシャルネットワークに参加している友人の紹介等の情報を登録する。管理サーバ３は、その友人情報に基づいてソーシャルネットワークを構成する。

【００３４】

＜ソーシャルネットワークの構成＞

ここで、ソーシャルネットワークの構成について説明する。図２は、本実施例におけるソーシャルネットワークの一構成例を示す図である。図２に示すソーシャルネットワークは、一例として上述した推薦順位選定装置２を使用するユーザを中心としたソーシャルネットワークサービス内での人間関係（友人ネットワーク構成）の例を示したものである。

【００３５】

つまり、管理サーバ３に現在のネットワーク構成を要求することにより、そのソーシャルネットワークに接続可能な他人と、ユーザとの交友関係等とに基づいて設定された人間関係ネットワークを取得することになる。

【００３６】

具体的には、図２に示すように、ユーザにはＡ，Ｂ，Ｃの３人の直接の“友人”が存在し、友人Ａを介してＤ及びＥという２人の“友人の友人”が存在する、更にＤを介してＪ及びＫという２人の“友人の友人の友人”が存在し、Ｊを介してＸ１，Ｘ２，Ｘ３という３人の“友人の友人の友人の友人”が存在する。

【００３７】

このように、人間関係の「距離」だけに注目すれば、図２に示すように、ユーザには直接の「友人」がＡ～Ｃの３人存在し、「友人の友人」がＤ～Ｉの６人存在し、「友人の友人の友人」がＪ～Ｖの１３人存在し、「友人の友人の友人の友人」がＸ１～Ｘ３５の３５人存在していることになる。

【００３８】

つまり、自分（ユーザ）との関係を基準にしてソーシャルネットワークの関係における優先順位を設け、その基準によって各コンテンツの情報に重み付けを行い、推薦情報の順位を選定する。なお、図２に示すようなソーシャルネットワークは、一定時間毎、ある人物のソーシャルネットワークへの参加／不参加等の所定のタイミング等により常時更新さ

れており、ソーシャルネットワークを管理する管理サーバ３等において、一元管理されているものとする。

【００３９】

ユーザは、推薦順位選定装置２のネットワークインタフェース部３０により上述した管理サーバ３にアクセスすることで、ソーシャルネットワークの情報を取得することができる。

【００４０】

次に、本実施例における推薦順位選定装置２の機能構成において、具体的に図を用いて説明する。なお、以下の説明では、ユーザに推薦するコンテンツの一例として番組を扱う場合に限定して説明するが、本発明におけるコンテンツはこれに限定されず、番組以外にも楽曲、商品、ゲーム等の多種のコンテンツであってもよい。

【００４１】

＜重要度算出用取得管理部１０＞

まず、重要度算出用情報取得管理部１０の機能構成について図を用いて説明する。図３は、重要度算出情報取得管理部の機能構成の一例を示す図である。図３に示す重要度算出情報取得管理部１０は、ユーザインタフェース部１０１と、操作内容取得部１０２と、能動的評価取得部１０３と、重要度算出用情報管理部１０４とを有するよう構成されている。

【００４２】

ユーザインタフェース部１０１は、ユーザからの録画予約操作や視聴中における操作、これから視聴する（もしくは視聴した）番組に関する能動的な評価情報等を受信する。また、ユーザインタフェース部１０１は、ユーザから入力された情報を操作内容取得部１０２及び能動的評価取得部１０３に出力する。

【００４３】

操作内容取得部１０２は、ユーザインタフェース部１０１から得られる情報からユーザによる録画予約や視聴における操作内容の情報を取得し、重要度算出用情報管理部１０４に出力する。また、能動的評価取得部１０３は、ユーザインタフェース部１０１を介してユーザが番組に対して行った能動的な評価内容を取得し、重要度算出用情報管理部１０４に出力する。

【００４４】

ここで、能動的な評価とは、例えば番組の放送前（もしくは視聴前）であれば、「この出演者とこの演出家ならば絶対に面白いに違いないので個人的に推薦する。」というような情報であったり、放送後であれば、「視聴したが非常に面白かったので個人的に推薦する」というものや、「視聴したが最高に素晴らしい番組だったので個人的に大推薦する。」というもの、「視聴したが非常につまらない番組だったので低い評価を与える。」というもの等である。なお、ユーザによる番組に対する評価の入力は、必ずしも必要な操作ではなく、各ユーザが積極的に他の友人ユーザに推薦したい場合に行うことができる。なお、上述した評価内容は、直接入力してもよく、予め設定された上述の内容から何れかを選択させるような選択画面を表示してユーザに選択させるようにしてもよい。

【００４５】

重要度算出用情報管理部１０４は、操作内容取得部１０２から受け取った操作情報と、能動的評価取得部１０３から受け取った能動的評価付け操作情報とを管理する。ここで、重要度算出用情報管理部１０４にて管理される情報の一例について図を用いて説明する。図４は、重要度算出情報の一例を示す図である。

【００４６】

図４に示すように、例えば、番組Ａ，Ｂ，Ｃについて、操作内容取得部１０２から得られる情報として、積極的に録画予約をした場合や番組を視聴した場合等の情報を管理する。また、能動的評価取得部１０３から得られる情報として、番組放送前（もしくは視聴前）に個人的の推薦する場合や、視聴後に個人的に推薦する場合、視聴後に個人的に大推薦する場合、視聴後に個人的に低評価する場合等の情報を管理する。

【００４７】
なお、重要度算出用情報管理部１０４にて管理される情報はこれに限定されず、また管理される情報の形態も番組毎に管理しているが、本発明においてはこれに限定されない。例えば、番組の視聴中において、途中で番組がつまらないため、番組の視聴を中止した場合や、番組が録画であって繰り返し視聴した場合等は、それらの情報について管理してもよい。
【００４８】
また、図４に示すような情報は、他の推薦順位選定装置２における推薦順位選定部２０が、そのユーザに対する重要度算出用情報を取得したい場合に必要となる。つまり、他の推薦順位選定装置２から情報取得のリクエストがあった場合、重要度算出用情報管理部１０４は、ネットワークインタフェース部３０から通信ネットワーク４を介して情報を送信する。
【００４９】
＜推薦順位選定部２０＞
次に、推薦順位選定部２０の機能構成について図を用いて説明する。図５は、推薦順位選定部の機能構成の一例を示す図である。図５に示す推薦順位選定部２０は、友人ネットワーク構成情報取得部２０１と、利用友人選択部２０２と、設定状況管理部２０３と、重み付け処理部２０４と、重要度算出用情報取得部２０５と、推薦順位算出部２０６とを有するよう構成されている。
【００５０】
友人ネットワーク構成情報取得部２０１は、ネットワークインタフェース部３０から通信ネットワーク４を介してソーシャルネットワークサービス全体を管理している管理サーバ３等と通信し、ユーザのソーシャルネットワークサービス内の友人ネットワーク構成（ソーシャルネットワークサービス内の人間関係）情報を取得する。また、友人ネットワーク構成情報取得部２０１は、取得したネットワーク構成情報を利用友人選択部２０２に出力する。
【００５１】
利用友人選択部２０２は、推薦順位を算出するうえで、友人ネットワークの中のどの友人（所定の人物）の情報を利用するかを設定する。このとき、利用友人選択部２０２は、設定状況管理部２０３からユーザによって予め設定されている設定内容、及び友人ネットワーク構成情報取得部２０１から得られる友人ネットワーク構成情報の両方の内容に基づいて設定を行うことができる。
【００５２】
例えば、利用友人選択部２０２において、設定状況管理部２０３から受け取った設定内容が“友人の友人の友人”までであり、また、友人ネットワーク構成情報取得部２０１から受け取った友人ネットワーク構成情報が上述した図２に示すソーシャルネットワーク構成であるすると、図２に示す友人ネットワーク構成から推薦順位算出に必要な友人（“友人”と、“友人の友人”と、“友人の友人の友人”）だけを抜き出した友人ネットワーク構成は、図６のようになる。
【００５３】
図６に示す利用する友人ネットワーク構成の一例では、“ユーザの友人の友人の友人”としてＡ～Ｖの計２２人が選択されている。そのため、この友人から得られる情報により番組の推薦順位の選定が行われることになる。
【００５４】
なお、利用する友人の選択方法についてはこれに限定されず、例えば図６における友人Ａ、Ｄ、Ｋ，Ｊのみを選定してもよく、また、ネットワークにおいて、“友人の友人”以外のＡ，Ｋ，Ｊのみを選定してもよい。また、予め所定のネットワーク範囲において、グループを設定しておき、そのグループ単位で利用するか否かを設定してもよい。
【００５５】
利用友人選択部２０２は、選択された友人の情報を重要度算出用情報取得部２０５に出

力する。

【００５６】

重み付け処理部２０４は、設定状況管理部２０３から得られた推薦順位の算出に利用する各友人に対し、ユーザと各友人との友人ネットワーク上での距離等に応じて重み付け処理をするものである。ここで、重み付け処理部２０４における重み付けの例について図を用いて説明する。

【００５７】

図７は、重み付け値の設定の一例を示す図である。図７（ａ）～（ｄ）に示す例は、少なくとも本人（ユーザ）からのネットワーク距離と、ユーザにとの関係と、ユーザにとの関係に対する重み付け値が設定されている。

【００５８】

具体的に説明すると、図７（ａ）は、ユーザの直接の友人を重視して重み付けを設定した例を示すものである。つまり、直接の「友人」はユーザにとって重要な存在なので「友人」は重み付けを“５”とし、「友人の友人」は“２”とし、「友人の友人の友人」は“１”として、ユーザからの距離が遠くなるにしたがって重み付けを低く設定する。また、図７（ｂ）は、ユーザからのネットワーク上の距離に基づいて“５”→“３”→“１”と比例させて重み付け値を設定した例を示しものである。また、図７（ｃ）は、ユーザからの距離等に関係なく、一定した重み付け値の設定を行った例である。なお、図７（ｃ）に示すような設定を行うことで、世間一般で広く流行している番組を探すことができる。

【００５９】

更に、図７（ｄ）は、友人（Ａ，Ｂ，Ｃ）の中でも、“Ｂ”がユーザにとって一番の親友である場合や、“Ｂ”と近日中に会うような場合、又は他薦情報を取得する際にある分野においては“Ｂ”が友人の中で一番詳しい等の場合、友人の中でも友人Ｂを特に重み付けを大きく設定することができる。また同様に友人の友人（Ｄ，Ｅ，Ｆ，Ｇ，Ｈ，Ｉ）においても、例えば友人の友人（Ｄ，Ｇ，Ｈ）においては、友人の友人（Ｅ，Ｆ，Ｉ）よりも重み付けを大きくするような設定を行うことができる。

【００６０】

ユーザは、重み付け処理部２０４において、図７（ａ）～（ｄ）に示すような重み付けを行うことにより、様々な条件において、他薦情報を取得することができる。

【００６１】

なお、重み付け値の設定方法は、図７に示す内容に限定されない。どのようなポリシーで重み付けをするかは、設定状況管理部２０３からユーザによって予め設定された設定内容を受け取り、この設定内容に基づいて設定される。また、重み付け処理部２０４は、設定された重み付けの情報を推薦順位算出部２０６に出力する。

【００６２】

設定状況管理部２０３は、上述したように推薦順位算出に利用する友人の範囲や、どのようなポリシーで重み付けを行うか等のユーザによって予め設定されている設定内容を管理し、利用友人選択部２０２、重み付け処理部２０４、及び後述する推薦順位算出部２０６に必要な情報を出力する。

【００６３】

また、重要度算出用情報取得部２０５は、利用友人決定部２０２から推薦順位算出にどの友人を利用するかの情報を受け取り、この情報にしたがってネットワークインタフェース部３０から通信ネットワーク４を介して、必要な全て友人の推薦順位選定装置２と通信し、重要度算出用情報を取得する。なお、上述した管理サーバ３や他のサーバで、各推薦順位選定装置２－１～２－ｎの重要度算出用情報を一元管理しているような場合には、それらのサーバから重要度算出用情報を取得する。また、重要度算出用情報取得部２０５は、取得した重要度算出用情報を推薦順位算出部２０６に出力する。

【００６４】

ここで、重要度算出用情報取得部２０５が、ユーザの友人のシステムから受け取り推薦順位算出部２０６に出力する情報は、上述した図４に示す情報となる。つまり、ユーザの

友人が各番組に対して行った「録画予約」操作、「番組視聴」操作等の一般的な操作の情報、及び、ユーザの友人が各番組に対して行った能動的な評価付け操作の情報である。推薦順位算出部２０６は、利用友人選択部２０２において設定した友人毎に得られる各番組の重要度を重要度設定基準に基づいて決定する。

【００６５】

なお、どのような重要度決定基準で重要度を決定するかは、設定状況管理部２０３内の設定内容を参照し推薦順位算出部２０６が設定する。ここで、重要度設定基準の例について図を用いて説明する。

【００６６】

図８は、重要度設定基準の一例を示す図である。なお、図８に示す重要度設定基準の設定内容は、操作時期と、各ユーザの操作内容と、操作内容に対応する重要度とからなる。ここで、図８（ａ）は、各人の能動的評価を重視した重要度の設定例を示しており、図８（ｂ）は、各人の視聴動向を重視した重要度の設定例、つまり、各友人が番組を見たかどうかを重視した重要度の設定例を示している。なお、図８に示すように、各ユーザの操作に基づいて重要度の加算値及び減算値（加算及び減算を行わない場合は“０”）を設定する。

【００６７】

推薦情報順位算出部２０６は、重要度算出用情報取得部２０５から受け取ったユーザの友人による各番組に対する操作情報から上述にて説明したようにして設定した各友人にとっての各番組の重要度の値と、重み付け処理部２０４から受け取った各友人の重み付け値とから、推薦順位を算出する。ここで、推薦情報順位算出部２０６における推薦順位算出例について図を用いて説明する。

【００６８】

図９は、各友人における重み付け値と重要度との関係の一例を示す図である。なお、図９では、番組１から番組５までの５つの番組について推薦順位を選定する例を示すが、本実施例において、番組数やコンテンツの内容についてはこれに限定されない。

【００６９】

図９は、利用友人選択部２０２で設定される上述の図６に示すネットワーク構成に対応する各友人（ｐｅｒｓｏｎＡ～Ｖ）において、推薦順位算出部２０６が重み付け処理部２０４から受け取った各友人の重み付け値と、各友人の操作内容等から設定された番組の重要度を示している。

【００７０】

なお、図９に示す各友人の重み付け値は、図７（ａ）に示す重み付け値を採用した例を示している。また、図９に示す各番組の重要度は、番組１から番組５までの５つの番組に対して、各友人による各番組に対する操作情報から図８（ａ）に示したような重要度決定基準に基づき設定した友人毎の各番組の重要度の値を示している。

【００７１】

ここで、図８（ａ）の場合、例えばｐｅｒｓｏｎＡの番組１について、積極的に録画予約操作をして（＋１）、実際に番組を視聴した（＋１）が、能動的な評価付け操作は行わなかった（０）場合、重要度の値は“１＋１＋０＝２”と算出される。このようにして、各友人の各番組の重要度を設定する。

【００７２】

図９の例の場合、ｐｅｒｓｏｎＡはユーザにとって直接の友人であるので重み付け値は“５”であり、ｐｅｒｓｏｎＡにとっての番組１の重要度の値は“２”であり、番組２の重要度の値は“５”であり、番組３の重要度の値は“１”であり、番組４の重要度の値は“３”であり、番組５の重要度の値は“５”である。

【００７３】

次に、推薦順位算出部２０６は、上述した友人に対する相手との距離による重み付け値と、各番組の重要度との乗算を行い（重み付け値×各番組の重要度）、算出した値から各番組毎の合計を算出する。

【００７４】
ここで、図１０は、図９に基づくユーザ本人における重要度の算出結果の一例を示す図である。図１０において、結果として得られた合計値が大きいものは、ユーザの友人達の中で高い評価を得ている、あるいは、ユーザの友人達の多くに視聴されていると判断することができる。そのため、推薦順位算出部２０６は、この合計値に基づいて各番組をソートし、合計値が大きい順に推薦順位を選定する。図１０の例の場合、５つの番組の推薦順位は合計値の大きい順に、番組２（１７８）→番組５（１６９）→番組４（１２８）→番組１（９７）→番組３（８２）となる。
【００７５】
以上のようにして得られた推薦順位を利用し、例えば放送前（もしくは視聴前）であれば、推薦順位が高く録画予約されていない番組は、自動的に録画予約をするように録画装置等に制御情報を出力することができる。また、放送後であれば、録画済みではあるが未視聴の番組を推薦順位にしたがってユーザに提示することで推薦することができる。なお、推薦順位算出部２０６は、順位付けされた番組のうち、例えば、第１位～第３位までの番組、又は第５位の番組のみといったように、予め設定した順位のコンテンツの情報を出力してもよい。これにより、ユーザが必要とするコンテンツの情報のみを効率的にユーザに提示することができる。
【００７６】
上述したように、推薦順位選定装置２により、ユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。
【００７７】
＜推薦順位選定プログラム＞
ここで、本発明における推薦順位選定装置２は、上述した専用の装置構成等を用いて本発明における推薦順位選定処理を行うこともできるが、各構成における処理をコンピュータに実行させることができる実行プログラムを生成し、例えば、汎用のパーソナルコンピュータ、ワークステーション等にそのプログラムをインストールすることにより、上述した推薦順位選定処理を実現することができる。
【００７８】
＜ハードウェア構成＞
ここで、本発明における推薦順位選定処理が実行可能なコンピュータのハードウェア構成例について図を用いて説明する。図１１は、本発明における推薦順位選定処理が実現可能なハードウェア構成の一例を示す図である。
【００７９】
図１１におけるコンピュータ本体には、入力装置３０１と、出力装置３０１と、ドライブ装置３０３と、補助記憶装置３０４と、メモリ装置３０５と、各種制御を行うＣＰＵ（Ｃｅｎｔｒａｌ　Ｐｒｏｃｅｓｓｉｎｇ　Ｕｎｉｔ）３０６と、ネットワーク接続装置３０７とを有するよう構成され、これらはシステムバスＢで相互に接続されている。
【００８０】
入力装置３０１は、ユーザが操作するキーボード及びマウス等のポインティングデバイスを有しており、ユーザからのプログラムの実行等、各種操作信号を入力する。出力装置３０２は、本発明における処理を行うためのコンピュータ本体を操作するのに必要な各種ウィンドウやデータ等を表示するディスプレイ（モニタ）を有し、ＣＰＵ３０６が有する制御プログラムにより本発明における処理の実行経過や結果等を表示することができる。
【００８１】
ここで、本発明において、コンピュータ本体にインストールされる実行プログラムは、例えば、ＣＤ－ＲＯＭ等の記録媒体３０８等により提供される。プログラムを記録した記録媒体３０８は、ドライブ装置３０３にセット可能であり、記録媒体３０８に含まれる実行プログラムが、記録媒体３０８からドライブ装置３０３を介して補助記憶装置３０４にインストールされる。
【００８２】

また、ドライブ装置３０３は、本発明に係る推薦順位選定プログラムを記録媒体３０８に記録することができる。これにより、その記録媒体３０８を用いて、他の複数のコンピュータに容易にインストールすることができ、容易に推薦順位選定処理を実現することができる。

【００８３】

補助記憶装置３０４は、ハードディスク等のストレージ手段であり、本発明における実行プログラムや、コンピュータに設けられた制御プログラム等を蓄積し必要に応じて入出力を行うことができる。また、補助記憶装置３０４は、上述した重要度算出用情報管理部１０４や設定状況管理部２０３において管理される各種情報等を蓄積する蓄積手段として用いることもできる。

【００８４】

ＣＰＵ３０６は、ＯＳ（Ｏｐｅｒａｔｉｎｇ　Ｓｙｓｔｅｍ）等の制御プログラム、及びメモリ装置３０５により読み出され格納されている実行プログラムに基づいて、各種演算や各ハードウェア構成部とのデータの入出力等、コンピュータ全体の処理を制御して、推薦順位選定処理における各処理を実現することができる。また、プログラムの実行中に必要な各種情報等は、補助記憶装置３０４から取得することができ、また格納することもできる。

【００８５】

ネットワーク接続装置３０７は、電話回線やＬＡＮケーブル等の通信ネットワーク等と接続することにより、実行プログラムを通信ネットワークに接続されている他の端末等から取得したり、プログラムを実行することで得られた実行結果又は本発明における実行プログラムを他の端末等に提供することができる。

【００８６】

上述したようなハードウェア構成により、特別な装置構成を必要とせず、低コストで上述した推薦順位選定処理を実現することができる。また、プログラムをインストールすることにより、容易に推薦順位選定処理を実現することができる。

【００８７】

＜推薦順位選定処理手順＞

次に、実行プログラムにおける推薦順位選定処理手順についてフローチャートを用いて説明する。なお、後述する処理手順では、推薦するコンテンツの一例として番組を例に説明するが、本発明においてはこの限りではない。また、ユーザが番組の視聴に基づく操作内容と、ユーザが能動的に評価した評価内容とが重要度算出用情報として、すでに管理されているものとする。

【００８８】

図１２は、本発明における推薦順位選定処理手順を示すフローチャートである。なお、まず、現在のソーシャルネットワーク構成情報を取得する（Ｓ０１）。なお、ネットワーク構成情報の取得については、例えば、ネットワーク構成を管理する管理サーバ等に要求を行うことにより取得することができる。次に、Ｓ０１にて取得したネットワーク構成から、どの友人までを利用対象とするかを判断して利用する友人を選択する（Ｓ０２）。

【００８９】

次に、Ｓ０２にて選択された友人に対して、その相手（所定の人物、友人）との距離に基づく重み付け値を設定する（Ｓ０３）。また、Ｓ０２にて選択された友人に対して利用する各友人における各番組の重要度を算出するための重要度情報を取得する（Ｓ０４）。

【００９０】

次に、Ｓ０３にて設定された重み付け値と、Ｓ０４にて得られる各友人からの各番組の重要度とに基づいて、各友人の各番組に対する重要度を算出し、番組毎に合計を算出する（Ｓ０５）。また、算出された合計値に基づいて番組を降順にソート（並べ替え）し（Ｓ０６）、選定された番組の推薦順位について上位から予め設定された順位までの番組を推薦番組としてディスプレイ等に提示する（Ｓ０７）。

【００９１】

上述したように、推薦順位選定処理手順により、ユーザと相手（所定の人物）との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。また、プログラムをインストールすることにより、容易に推薦順位選定処理を実現することができる。

【００９２】

上述したように本発明によれば、ユーザと相手との関係に基づいて、高精度にコンテンツの推薦順位を選定することができる。具体的には、ソーシャルネットワークシステムにおける人間関係の距離に基づいて、高精度にコンテンツの推薦順位を選定することができる。ソーシャルネットワークサービス内での自分と友人との距離と、各友人にとってのコンテンツの重要度とから、ユーザ本人にとっての重要度を算出し、算出された重要度によりユーザにコンテンツを推薦することによって、自分の友人達の間で人気のあるコンテンツが自動的にユーザに対して推薦される。また、自分の友人達の間で人気のある番組を自動的に録画しておく等の処理を行うことができる。

【００９３】

以上本発明の好ましい実施例について詳述したが、本発明は係る特定の実施形態に限定されるものではなく、特許請求の範囲に記載された本発明の要旨の範囲内において、種々の変形、変更が可能である。

【図面の簡単な説明】

【００９４】

【図１】推薦順位選択システムの一構成例を示す図である。

【図２】本実施例におけるソーシャルネットワークの一構成例を示す図である。

【図３】重要度算出情報取得管理部の機能構成の一例を示す図である。

【図４】重要度算出情報の一例を示す図である。

【図５】推薦順位選定部の機能構成の一例を示す図である。

【図６】利用する友人ネットワーク構成の一例を示す図である。

【図７】重み付け値の設定の一例を示す図である。

【図８】重要度設定基準の一例を示す図である。

【図９】各友人における重み付け値と重要度との関係の一例を示す図である。

【図１０】図９に基づくユーザ本人における重要度の算出結果の一例を示す図である。

【図１１】本発明における推薦順位選定処理が実現可能なハードウェア構成の一例を示す図である。

【図１２】本発明における推薦順位選定処理手順を示すフローチャートである。

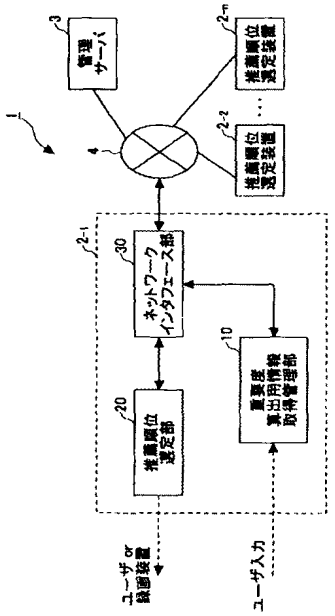
【符号の説明】

【００９５】

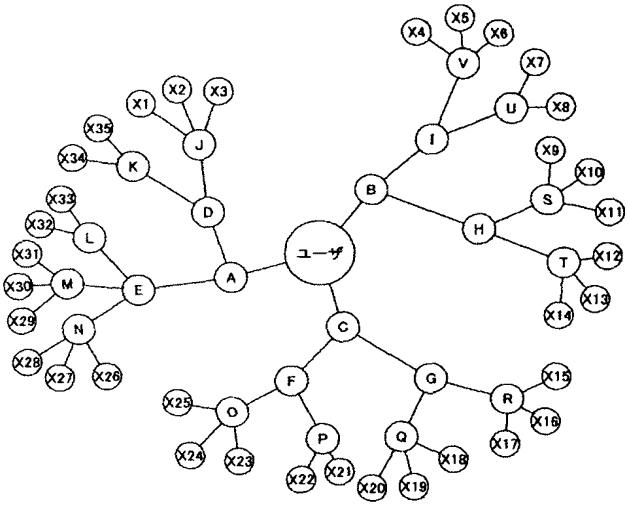
１　推薦順位選定システム
２　推薦順位選定装置
３　管理サーバ
４　通信ネットワーク
１０　重要度算出用情報取得管理部
２０　推薦順位選定部
３０　ネットワークインタフェース部
１０１　ユーザインタフェース部
１０２　操作内容取得部
１０３　能動的評価取得部
１０５　重要度算出用情報管理部
２０１　友人ネットワーク構成情報取得部
２０２　利用友人選択部
２０３　設定状況管理部
２０４　重み付け処理部
２０５　重要度算出用情報取得部
２０６　推薦順位算出部

３０１　入力装置
３０２　出力装置
３０３　ドライブ装置
３０４　補助記憶装置
３０５　メモリ装置
３０６　ＣＰＵ
３０７　ネットワーク接続装置
３０８　記録媒体

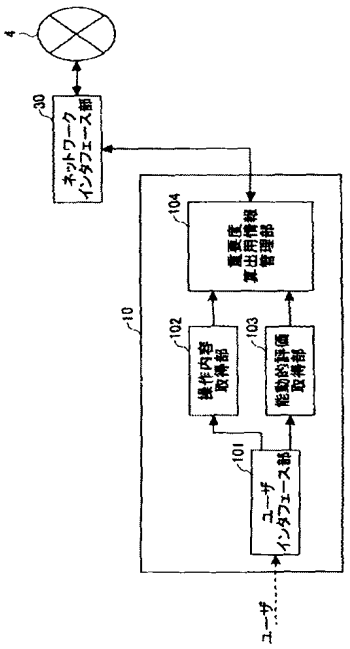
【図１】



【図２】



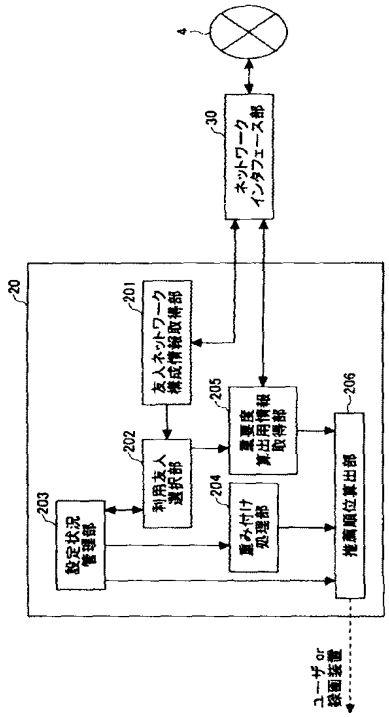
【図３】



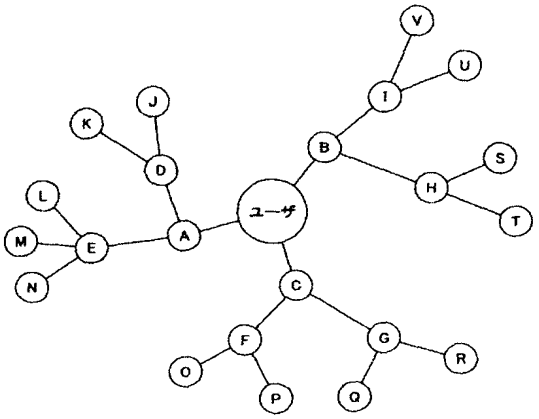
【図４】

番組名	積極的に録画予約をした	個人的に推薦（番組放送前）	番組を視聴した	個人的に推薦（番組視聴後）	個人的に大推薦（番組視聴後）	個人的に低評価（番組視聴後）	…
番組A	○	○	○	○			…
番組B	○		○				…
番組C			○			○	…
…	…	…	…	…	…	…	…

【図５】



【図６】



【図７】

(a)

距離	ユーザとの関係	重み付け値
1	友人	5
2	友人の友人	2
3	友人の友人の友人	1

(b)

距離	ユーザとの関係	重み付け値
1	友人	5
2	友人の友人	3
3	友人の友人の友人	1

(c)

距離	ユーザとの関係	重み付け値
1	友人	3
2	友人の友人	3
3	友人の友人の友人	3

(d)

距離	ユーザとの関係	重み付け値
1	友人(B)	8
	友人(A,C)	8
2	友人の友人(D,G,H)	5
	友人の友人(E,F,I)	2
3	友人の友人の友人	1

【図８】

(a)

操作時期	各ユーザの操作	重要度加算・減算
番組放送前	積極的に録画予約をした	+1
	個人的に推薦(能動的加算操作)	+2
番組放送後	番組を視聴した	+1
番組視聴後	個人的に推薦(能動的加算操作)	+3
	個人的に大推薦(能動的加算操作)	+5
	個人的に低評価(能動的減算操作)	-3
・・・	・・・	・・・

(b)

操作時期	各ユーザの操作	重要度加算・減算
番組放送前	積極的に録画予約をした	+1
	個人的に推薦(能動的加算操作)	+1
番組放送後	番組を視聴した	+3
番組視聴後	個人的に推薦(能動的加算操作)	+1
	個人的に大推薦(能動的加算操作)	+2
	個人的に低評価(能動的減算操作)	0
・・・	・・・	・・・

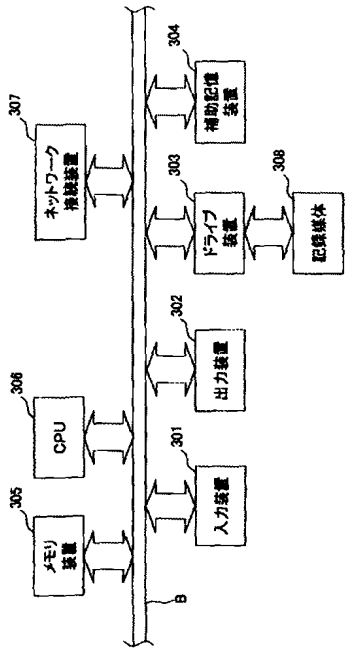
【図９】

Person	相手との距離による重み付け値	各番組の重要度				
		番組1	番組2	番組3	番組4	番組5
A	5	2	5	1	3	5
B	5	1	5	1	3	4
C	5	2	5	2	3	5
D	2	3	5	1	5	4
E	2	3	5	2	4	2
F	2	2	4	3	3	4
G	2	2	5	2	4	5
H	2	4	4	2	3	5
I	2	3	5	3	3	3
J	1	4	4	3	3	4
K	1	2	4	2	4	5
L	1	5	3	1	4	5
M	1	4	3	1	2	2
N	1	3	5	2	3	5
O	1	4	5	1	1	4
P	1	2	5	3	3	3
Q	1	1	4	3	1	5
R	1	1	1	5	4	5
S	1	3	3	4	3	3
T	1	4	3	4	5	4
U	1	2	2	3	2	5
V	1	3	5	4	4	4

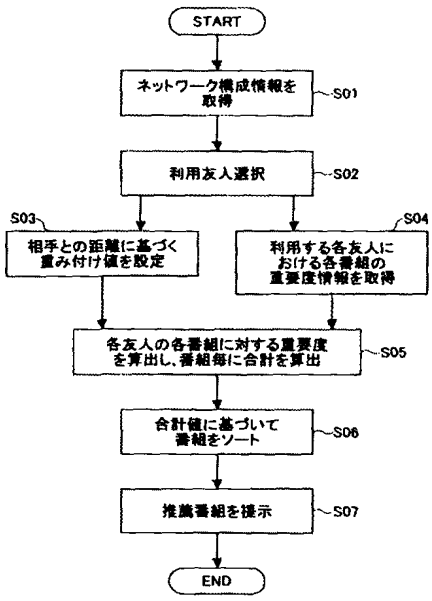
【図１０】

Person	(相手との距離による重み付け値)×(各番組の重要度)				
	番組1	番組2	番組3	番組4	番組5
A	10	25	5	15	25
B	5	25	5	15	20
C	10	25	10	15	25
D	6	10	2	10	8
E	6	10	4	8	4
F	4	8	6	6	8
G	4	10	4	8	10
H	8	8	4	6	10
I	6	10	6	6	6
J	4	4	3	3	4
K	2	4	2	4	5
L	5	3	1	4	5
M	4	3	1	2	2
N	3	5	2	3	4
O	4	5	1	1	4
P	2	5	3	3	3
Q	1	4	3	1	5
R	1	1	5	4	5
S	3	3	4	3	3
T	4	3	4	5	4
U	2	2	3	2	5
V	3	5	4	4	4
合計	97	178	82	128	169

【図１１】


304
補助記憶装置
307
ネットワーク接続装置
303
ドライブ装置
308
記録媒体
302
出力装置
306
CPU
301
入力装置
305
メモリ装置
B

【図１２】


START
ネットワーク構成情報を取得
S01
利用友人選択
S02
S03
相手との距離に基づく重み付け値を設定
S04
利用する各友人における各番組の重要度情報を取得
各友人の各番組に対する重要度を算出し、番組毎に合計を算出
S05
合計値に基づいて番組をソート
S06
推薦番組を提示
S07
END

(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **2006309660 A**

(43) Date of publication of application: **09.11.06**

(51) Int. Cl **G06F 17/30 20060101**
G06Q 30/00 20060101

(21) Application number: **2005134272**

(22) Date of filing: **02.05.05**

(71) Applicant: **NIPPON HOSO KYOKAI <NHK>**

(72) Inventor: **UENO MIKIHIRO**
KIMURA TAKESHI

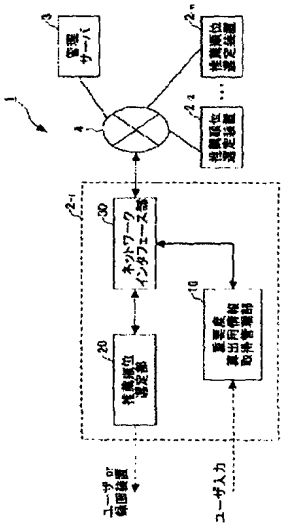
(54) RECOMMENDATION ORDER SELECTION DEVICE, RECOMMENDATION ORDER SELECTION PROGRAM RECOMMENDATION ORDER SELECTION DEVICE AND RECOMMENDATION ORDER SELECTION PROGRAM

(57) Abstract:

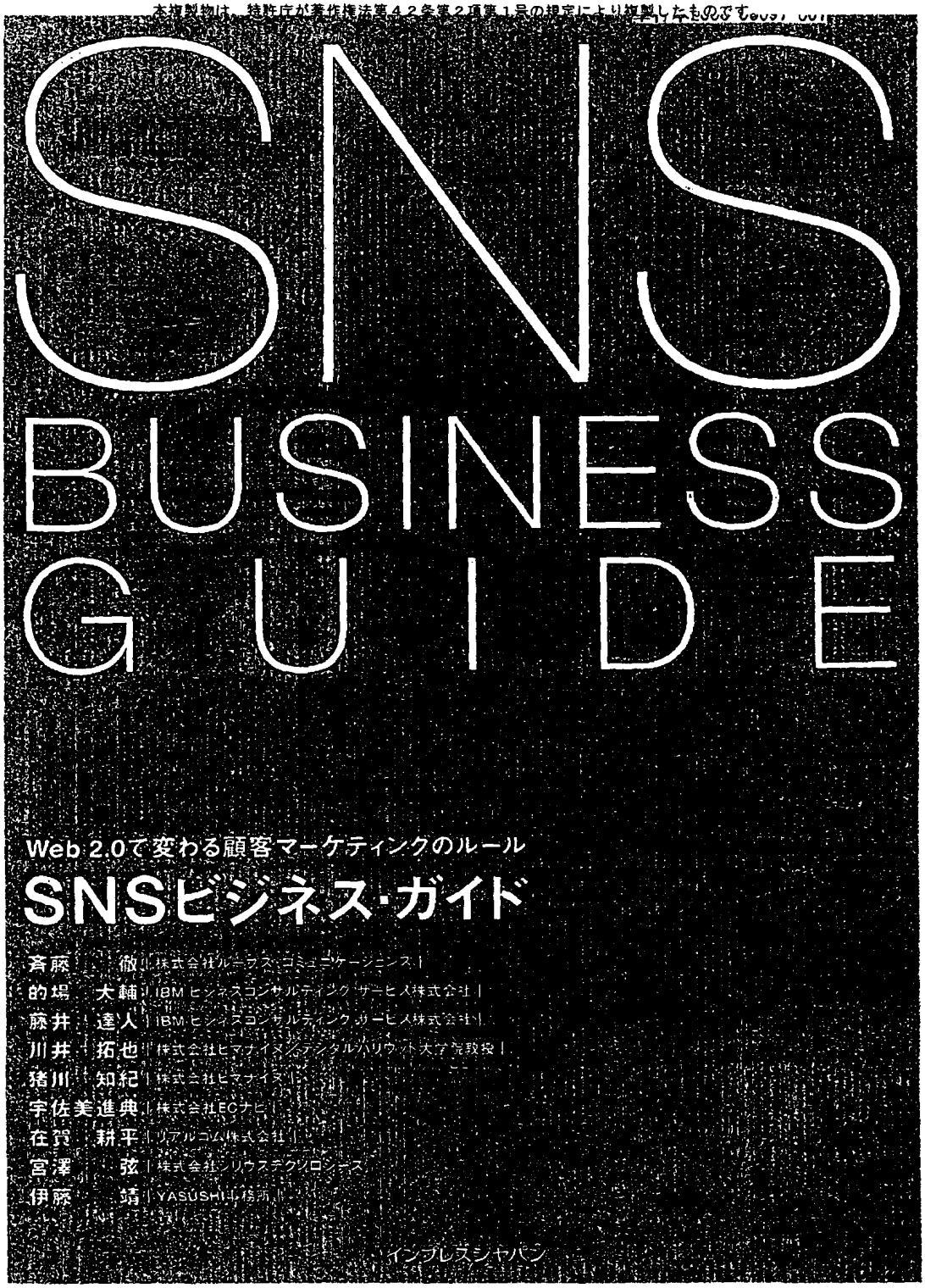
PROBLEM TO BE SOLVED: To provide a recommendation order selection device and a recommendation order selection program, for selecting recommendation order of a content with high accuracy on the basis of relation between a user and an opposite party.

SOLUTION: This recommendation order selection device acquiring information from a prescribed person via a prescribed network and selecting the recommendation order of the content by the acquired information has: an importance level-calculating information acquisition management part allowing the prescribed person to acquire importance level-calculating information for calculating an importance level of the content by input of the user and to manage it; and a recommendation order selection part selecting the recommendation order of the content on the basis of the importance level-calculation information acquired from the prescribed person and a preset weighting value to the prescribed person.

COPYRIGHT: (C)2007,JPO&INPIT



本複製物は、特許庁が著作権法第４２条第２項第１号の規定により複製したものです。



本複製物は、特許庁が著作権法第４２条第２項第１号の規定により複製したものです。
取扱にあたっては、著作権侵害とならないよう十分にご注意ください。

特化型SNSを使った企業マーケティング

chapter 4-2

特化型SNSを導入することで、どのようなマーケティング活動が可能となるのか。また、その結果どのような事柄を達成することができるのか。この項では、SNSをホストとして開設する立場から、特化型SNSのマーケティング利用法を論じる。

特化型SNSはメールマーケティングを超える

EC市場の拡大にともない、インターネットの世界には数多くのマーケティング手法が出現した。

メールを利用して顧客や潜在顧客にプロモーション活動を効果的に行ういわゆるメールマーケティングや、検索エンジンを活用して顧客に商品やサービス購入の誘発を働きかける「SEM (Search Engine Marketing)」、検索エンジンの上位に自分のウェブページが表示されるように対策を施す「SEO (Search Engine Optimization)」など、枚挙に暇がないほどである。

【SEM】Search Engine Marketing。検索エンジンから自社ウェブサイトへの訪問者を増やすマーケティング手法。
【SEO】Search Engine Optimization。検索エンジンの上位に自社ウェブサイトが表示されるように工夫すること。また、そのための技術。

かつてECサイトを運営する企業にとって、最も簡単かつ低コストで始められるマーケティング手法は、メールマーケティングだった。

メールマーケティングを行う上でまず重要な課題となるのは、メールマガジン読者を獲得することである。なぜならメールマガジンの読者を獲得して累積的に潜在顧客を増やし、そこに継続的なアプローチをかけることで売り上げに結びつけることができたからだ。

読者を獲得するために懸賞サイトなどに広告を出稿して、懸賞応募者に自動的にメールが配信されるように仕向けたりした。メールマガジンの発行がすなわち固定客の囲い込みや、顧客とのリレーション強化の大

本複製物は、特許庁が著作権法第４２条第２項第１号の規定により複製したものです。
取扱にあたっては、著作権侵害とならないよう十分にご注意ください。

きな役割を担っていたのである。

しかし、2003年以降、その効果が目に見えて落ち始めている。

【スパム】SPAM。インターネット上に公開されたメールアドレスなどを取得し、無差別に大量のダイレクトメールを送る行為。またはそのメール。

【ISP】インターネットサービスプロバイダー。

要因としては、悪質な業者によるスパムメールの氾濫やメールを媒介としたコンピューターウイルスの蔓延により、メールマガジンそのものに目を通すユーザーの割合が減少したこと、あるいはスパムへの対策としてISPがフィルタリングを始めたため、ユーザーに到着するはずのメールが途中で削除されるなどして、メールマガジンの開封率が低下したことがあげられる。

【RSS】ウェブサイトの見出しや要約などのメタデータを構造化して記述するフォーマット。サイトの更新情報の伝達などに用いられている。

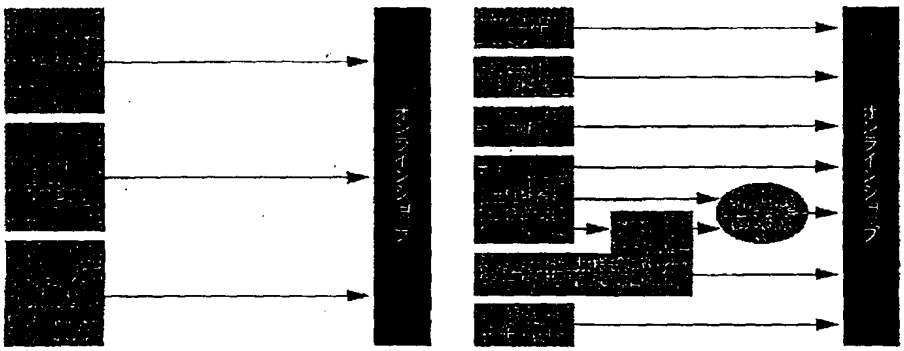
さらには、Googleのような精度の高い検索エンジンが広く使われるようになったことや、RSSなどの新しい導線が生まれたことなども、少なからず影響しているだろう。

メールマーケティングのような一方通行のツールは、もはや訴求力があるとはいいがたい状況にあるようだ。

SNSをマーケティングにどのように活用するか

ではSNSは、実際にはどのようにマーケティングに活用されているのだろうか。

代表的な活用法は、大きく分けて２つある。



〈Web 1.0時代の誘導＝直接誘導型〉　〈Web 2.0時代の誘導＝多段階誘導型〉

Web1.0とWeb 2.0でのEコマースサイトへの誘導

本複製物は、特許庁が著作権法第４２条第２項第１号の規定により複製したものです。
取扱にあたっては、著作権侵害とならないよう十分にご注意ください。

ひとつは、短期的なキャンペーンやプロモーションに利用して、「クチコミマーケティングによる新規顧客の獲得」を主要な目的とする場合であり、もうひとつは、長期的なリレーションを顧客との間に結ぶ「既存顧客の囲い込み」を主要な目的とする場合である。

①SNSを短期的なキャンペーンなどに利用する場合

SNSを短期的なキャンペーンやプロモーションに利用する場合には、多くのユーザーを抱えている既存SNSを活用する。成功例として、SNS内に架空のキャラクターや実在する有名な人物を登録させた２つの事例を参考にしたい。

まずひとつは、Friendsterを活用した映画「アンカーマン」のプロモーションである。

米国のDreamWorks SKGが制作したコメディ映画「アンカーマン（邦題：俺たちニュースキャスター）」では、Will Ferrell演じる主人公などの登場人物のプロフィールをFriendster内に作り、ユーザーがリンクを貼ることでユーザーの映画に対する熱意を友人たちと分かち合えるようにした。

＊DreamWorks SKG
http://www.dreamworks.com/

もうひとつは、MySpaceを活用したP&Gのキャンペーンである。

＊P&G
http://www.pg.com/

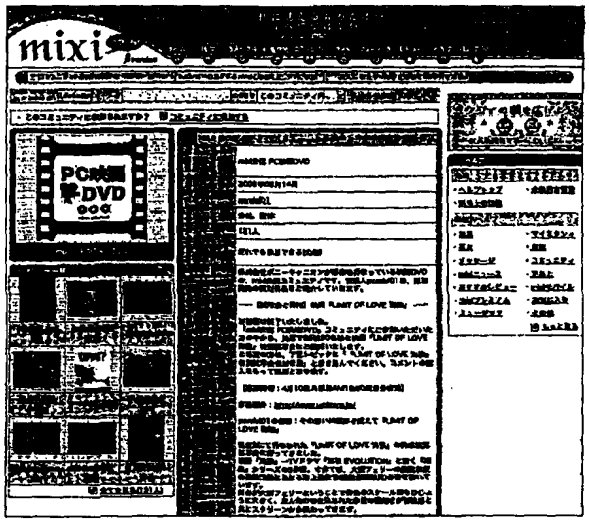
P&Gのデオドラント商品「Secret Sparkle」のプロモーションでは、人気歌手のHilary Duffを使い、彼女のプロフィールに「Secret Sparkle」のロゴがついた写真を掲載し、それを発見したユーザーが抽選でiPodが当たる懸賞に応募できるようにした。この遊び心がユーザーの興味を引いたようだ。

これらのマーケティング手法は、テレビのような既存のマスメディアを活用した広告に比べれば目立たないものである。しかし、映画のキャラクターであれ、実在の有名人であれ、彼らのプロフィールとリンクを貼ることで、通常の広告よりも強烈なイメージを消費者に持たせることができる。

ただ、サイトを利用するユーザーの混乱を招く可能性

本複製物は、特許庁が著作権法第４２条第２項第１号の規定により複製したものです。
取扱にあたっては、著作権侵害とならないよう十分にご注意ください。

mixi公認のボニーキャニオンのコミュニティ。



もある。虚偽のプロフィールとの区別がつきにくいからである。

それゆえ、このようなプロモーションを行う際には、ユーザーに対してそれが企業のプロモーションであることがわかるように配慮する必要がある。

また、SNS内に専用のコミュニティを作成してそこでキャンペーンを行う方法もある。

例えば、ボニーキャニオンでは、mixiの中に公認のボニーキャニオンのコミュニティを立ち上げ、コミュニティに参加したユーザーに抽選でグッズをプレゼントしたり、映画「LIMIT OF LOVE 海猿」の試写会に招待したりしている。

この例のようにSNS内に自社のコミュニティを作れば、ユーザーを囲い込み、継続的にコミュニケーションをとることができるようになる。

ただし、自社で独自のSNSを構築するより、早く効率的に運営することができる反面、柔軟性に欠けるところがあり、コミュニティに対しての継続的な情報発信や管理体制も必要になる。

整理番号:　　発送番号:462979　発送日:平成24年 7月10日　　7/E

本複製物は、特許庁が著作権法第４２条第２項第１号の規定により複製したものです。
取扱にあたっては、著作権侵害とならないよう十分にご注意ください。

SNSビジネス・ガイド

Web 2.0で変わる顧客マーケティングのルール

2006年7月11日　初版発行

著　者　斉藤 徹、的場大輔、藤井達人、川井拓也、猪川知紀、
宇佐美進典、在賀耕平、宮澤 弦、伊藤 靖

発行人　土田米一

発　行　株式会社インプレスジャパン　An Impress Group Company
〒102-0075 東京都千代田区三番町20

発　売　株式会社インプレスコミュニケーションズ　An Impress Group Company
〒102-0075 東京都千代田区三番町20

印刷所　凸版印刷株式会社

本書の内容はすべて、著作権上の保護を受けております。本書の一部あるいは全部について、株式会社インプレスジャパンから文書の許諾を得ずに、いかなる方法においても無断で複写、複製することは禁じられています。

ISBN4-8443-2275-3 C3055

Copyright ©2006 Toru Saito, Daisuke Matoba, Tatsuto Fujii, Takuya Kawai, Tomonori Inokawa, Shinsuke Usami, Gen Miyazawa and Yasushi Ito.
All rights reserved.
Printed in Japan

造本には万全を期しておりますが、万一、落丁・乱丁がございましたら、送料小社負担にてお取り替え致します。お手数ですが、インプレスカスタマーセンターまでご返送ください。

■商品の購入に関するお問い合わせ先
インプレス カスタマーセンター
〒102-0075 東京都千代田区三番町20
TEL 03-5213-9295／FAX 03-5275-2443
info@impress.co.jp

■書店・取次様のお問い合わせ先
出版営業部
〒102-0075 東京都千代田区三番町20
TEL 03-5275-2442／FAX 03-5275-2444

株式会社インプレスは2006年4月より
株式会社インプレスジャパンに社名変更いたしました。

受入
平成
19.8.02
(財)ソフトウエア
情報センター

読者会員制度と出版関連サービスのご案内
CLUB IMPRESS
今すぐアクセス! ▶ club.impress.co.jp

Electronic Patent Application Fee Transmittal

Application Number:	11618506
Filing Date:	29-Dec-2006
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Filer:	Drew Schoentrup/Michelle Melendez
Attorney Docket Number:	16113-0206001

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 2 months with $0 paid	1252	1	560	560

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**560**

Electronic Acknowledgement Receipt

EFS ID:	13674334
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	Drew Schoentrup/Michelle Melendez
Filer Authorized By:	Drew Schoentrup
Attorney Docket Number:	16113-0206001
Receipt Date:	06-SEP-2012
Filing Date:	29-DEC-2006
Time Stamp:	15:11:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$560
RAM confirmation Number	1856
Deposit Account	061050
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		1_Response.pdf	110805 89eca3921bca7cd88b49842bbac9195d814fa969	yes	13
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Amendment/Req. Reconsideration-After Non-Final Reject		1	1	
	Claims		2	9	
	Applicant Arguments/Remarks Made in an Amendment		10	13	
Warnings:					
Information:					
2	Transmittal Letter	2_IDS_Transmittal.pdf	61777 597238a92dba2ff43099d4f4e6aa364770c85ff5	no	1
Warnings:					
Information:					
3	Information Disclosure Statement (IDS) Form (SB08)	3_IDS_1449.pdf	94085 5e99af7e0a41a2dacff8c3df73b9438af02e4823	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
4	Foreign Reference	4_FR_8_EP1209599.pdf	926560 d55bfaecdc68318e55249737c444f625b47ff2d8	no	69
Warnings:					
Information:					
5	Foreign Reference	5_FR_9_JP2005244647.pdf	1157361 7cb8cb9a14921e0f916eb16e3078d3649c7c1900	no	19
Warnings:					
Information:					
6	Foreign Reference	6_FR_10_JP2005174149.pdf	677654 b5e87a126a6b5e54bd7e2435b2c93e3ec41f3c6e	no	12
Warnings:					
Information:					

7	Foreign Reference	7_FR_11_JP2006309660.pdf	1082895 c0c074044884c91b403aafcb13a0aec16a2688bd	no	18
Warnings:					
Information:					
8	Non Patent Literature	8_NPL_12_Corporate_Marketing.pdf	1412535 af400872d47c73ca65b00c35460cd4295ddcc447	no	24
Warnings:					
Information:					
9	Non Patent Literature	9_NPL_13_JP_OA.pdf	470638 59632d85c97640a617d8f7d44e4c98981b12c780	no	10
Warnings:					
Information:					
10	Non Patent Literature	10_NPL_14_Oomukai.pdf	792011 3056ca7d8d4a048cc48eeef6e0a4c986251115ce	no	10
Warnings:					
Information:					
11	Non Patent Literature	11_NPL_15_Takami.pdf	403333 1fa85659e8715bde6e931110ddb9548e17819f3a	no	7
Warnings:					
Information:					
12	Fee Worksheet (SB06)	fee-info.pdf	30300 222e0a0744d6f07e0a26ab485a896e126e438309	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	7219954	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 11/618,506	Filing Date 12/29/2006	☐ To be Mailed

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	09/06/2012	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 34	Minus	** 36	= 0	X $ =		OR	X $60=	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $ =		OR	X $250=	0
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/LAVINIA JOHNSON/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 11/618,506	Filing Date 12/29/2006	☐ To be Mailed

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	09/06/2012	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 34	Minus	** 36	= 0	X $ =		OR	X $60=	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $ =		OR	X $250=	0
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/LAVINIA JOHNSON/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/618,506	12/29/2006	Terrence Rohan	16113-0206001	5917

26192 7590 04/12/2012

FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
BROWN, LUIS A	

ART UNIT	PAPER NUMBER
3622	

NOTIFICATION DATE	DELIVERY MODE
04/12/2012	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	11/618,506	ROHAN ET AL.	
	Examiner	Art Unit	
	LUIS BROWN	3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-4,6,8-12,25-28,30 and 33-52* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-4,6,8-12,25-28,30 and 33-52* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/30/2012*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. **Applicant's submission for Application #11/618,506 filed on 12/09/2010 has been entered.** The following is a NON-FINAL OFFICE ACTION in response to the request for continued examination.
2. Claims 1-4, 6, 8-12, 25-28, 30, and 33-52 are now pending and have been examined.
3. Claims 5 and 29 have been cancelled by the applicant.

Claim Rejections - 35 USC § 103(a)

4. The following is a quotation of **35 U.S.C. 103(a)** which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 1-3, 6, 9-12, 25-27, 30, 33-37, 39, 42, 45, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Ebanks, Pre-Grant Publication No. 2007/0198510 A1.**

Regarding Claims 1 and 25 Atazky teaches:

A method (computer-readable medium) for displaying advertisements to members of a network, the method comprising:

- *identifying… a community within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the at least two indirectly linked members are each linked to a common member of the plurality of members* (see [0089]-[0098], [0152]-[0159], [0191], [0198], and Figure 12 and [0214] in which a community within a social network comprising of a plurality of members is identified, including "intertrust levels" for directly linked members and indirectly linked members, who share a common directly linked member to the "community influencer; the Examiner notes that in [0214] it is described how the "intertrust level" weighting is given to the influencer not just by measuring direct trust "links" but also indirect, as shown by the thickness of the arrows also pointing from two indirect users to a direct user other than the main "influencer")
- *identifying… a plurality of influencers in the community, wherein the plurality of influencers are members of the community with highest ranks* (see Figure 12, Figure 17, [0089], [0213], and [0242]-[0243] in which opinion leaders, which constitute influencers, are identified within the community)

- *associating… advertisements with the profiles of the plurality of influencers, wherein advertisements associated with an influencer's profile depends upon a rank of the influencer in the community* (see Figure 17 and [0242]-[0243] in which ads are placed on a profile page such as a MySpace page; see also Figures 11-12, [0089], [0109], [0182]-[0186], [0213], and [0216] in which the advertisements, types of incentives, amounts of incentives, etc. are all decided based on the influencer rank in the community)

Atazky, however, does not appear to specify:

- *ranking…each of the plurality of members included in the community, wherein a rank of a member is based on a quantity of members with whom the member is directly linked and a number of members with whom the member is indirectly linked*

Ebanks teaches *ranking…each of the plurality of members included in a community, wherein a rank of a member is based on a number of members with whom the member is directly linked and a number of members with whom the member is indirectly linked* (see [0014], [0025]-[0026], and [0043]-[0044] in which each member is ranked based on direct and indirect links, such as "friends of friends"). It would be obvious to one of ordinary skill in the art to combine **Ebanks** with **Atazky** because **Atazky** already aims to identify popular users for advertising purposes, and uses weights of influence based on their links within the social network, and ranking all individuals based on their direct and indirect links would be a broader and more useful gage of which users, or "nodes," would be effective for targeted viral-type advertising.

Atazky and Ebanks, however, does not appear to specify:

- *wherein **a quantity** of advertisements associated with an influencer's profile depends upon a rank of the influencer in the community*

Atazky does, however, teach:

- *associating… advertisements with the profiles of the plurality of influencers, wherein advertisements associated with an influencer's profile depends upon a rank of the influencer in the community* (see Figure 17 and [0242]-[0243] in which ads are placed on a profile page such as a MySpace page; see also Figures 11-12, [0089], [0109], [0182]-[0186], [0213], and [0216] in which the advertisements, types of incentives, amounts of incentives, etc. are all decided based on the influencer rank in the community)

Therefore, it would be obvious to one of ordinary skill in the art to combine *wherein **a quantity** of advertisements associated with an influencer's profile depends upon a rank of the influencer* with **Atazky and Ebanks** because **Atazky** already aims to identify popular users for advertising purposes, and uses weights of influence based on their links within the social network, and decides various advertisement targeting principles such as type and amount of incentive, type of advertisement, etc., based on these principles, and using the same principle of user rank to also target NUMBER of advertisements would allow another way to mitigate the risk of advertisement spending by allocating more to more popular members.

Regarding Claims 2 and 26, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and the computer-readable medium of claim 25*
- *receiving information pertaining to a plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of*

members and information describing one or more members with whom each of the plurality of members is linked (see [0098] in which profile and social ties are determined, [0152]-[0160] in which data is received for all users within the identified network, including behavioral, interest, and other data, and [0188]-[0201] in which profile information and link information up to a certain specified degree is received for users)

Regarding Claims 3 and 27, the combination of Atazky and Ebanks teaches:

- *the method of claim 2 and the computer-readable medium of claim 26*

Atazky further teaches:

- *wherein identifying the community comprises grouping members who are directly and indirectly linked to each other* (see [0193], [0201], [0242]-[0243], and Figure 12 in which a grouping of members with established links in a social network, up to a certain degree, is identified as the target community)

Regarding Claims 6 and 30, the combination of Atazky and Ebanks teaches:

- *the method of claim 2 and the computer-readable medium of claim 26*

Ebanks further teaches:

- *identifying one or more common interests of the plurality of members of the community based on the content of the profiles of the plurality of members* (see [0152]-[0160], [0192]-[0198], [0201], and [0210]-[0211] in which common interests of a plurality of members is identified from their profiles, including analyzing the text on the actual profile page as well as bookmarks and links)

Regarding Claims 9 and 33, the combination of Atazky and Ebanks teaches:

- *the method of claim 2 and the computer-readable medium of claim 26*

Atazky further teaches:

- *wherein the network comprises an online social network* (see [0092] and [0097]-[0099] in which the network comprises an online social network)

Regarding Claims 10 and 34, the combination of Atazky and Ebanks teaches:

- *the method of claim 9 and the computer-readable medium of claim 33*

Atazky further teaches:

- *wherein the profile comprises one or more web pages stored on a server hosting the online social network* (see Figures 2 and 17 and [0193]-[0198] in which a user profile includes a profile web page stored on a social network server that contextual information can be derived from and ads are placed on)

Regarding Claims 11 and 35, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and the compute-readable medium of claim 25*

Atazky further teaches:

- *wherein a member of the network belongs to more than one community* (see [0094], [0098], [0242]-[0243], and [0270]-[0271] in which a member of the network belongs to several communities and or/social networks)

Regarding Claims 12 and 36, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and the computer-readable medium of claim 25*

Atazky further teaches:

- *wherein the one or more advertisements are placed solely on the profiles of the one or more influencers* (see Figure 17, [0092], [0175], [0175]-[0187], [0210], and [0213] in which advertisers target lower or higher ranked opinion leaders, and the ads are placed on their profile pages, not on all pages in the network community)

Regarding Claims 37 and 39, the combination of Atazky and Ebanks teaches:

- *the method of claim 1*

Atazky further teaches:

- *wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members* (see Figure 12)
- *wherein the common member is directly linked to another member of the plurality of members* (see Figure 12); the Examiner notes that while it seems the applicant may be trying to relate the specifics of the user links to the weighting of the links, these claims are dependent on claim 1, and therefore the Examiner has to examine the claims relative only to the invention laid out in claim 1 which only claims the identification of the community, the ranking of the users, and the identification of the influencer, and therefore, the claims are simply describing various link configurations in the community as claimed.

Regarding Claim 42, the combination of Atazky and Ebanks teaches:

- *the medium of claim 25*

Atazky further teaches:

- *wherein the common member is directly linked to another member of the plurality of members* (see Figure 12); the Examiner notes that while it seems the applicant may be trying to relate the specifics of the user links to the weighting of the links, these claims are dependent on claim 25, and therefore the Examiner has to examine the claims relative only to the invention laid out in claim 1 which only claims the identification of the community, the ranking of the users, and the identification of the influencer, and therefore, the claims are simply describing various link configurations in the community as claimed.

Regarding Claims 45 and 50, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and medium of claim 25*

Atazky further teaches:

- *wherein associating advertisements with the profiles of each of the plurality of influencers comprises placing the advertisements on the profiles of each of the plurality of influencers* (see Figure 17 and [0242]-[0243] in which ads are placed on a profile page such as a MySpace page)

6. **Claims 4 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Ebanks, Pre-Grant Publication No. 2007/0198510 A1 and in further view of McCuller, Pre-Grant Publication No. 2007/0260725 A1.**

Regarding Claims 4 and 28 the combination of Atazky and Ebanks teaches:

- *the method of claim 3 and the computer-readable medium of claim 27*

Atazky further teaches:

- *wherein two members are directly connected to each other through a link* (see [0193], [0201] and Figure 12 in which the links connect a first "opinion leader" with one or more other members of the identified social network community)

Atazky, however, does not appear to specify:

- *wherein two members are directly connected to each other through a link <u>that has a weight, associating one or more advertisements with a profile of each of the two members, wherein a quantity of advertisements associated with the profile is based on the weight of the link</u>*

McCuller teaches:

- *wherein two members are directly connected to each other through a link that has a weight, associating one or more advertisements with a profile of each of the two members, wherein a quantity of advertisements associated with the profile is based on the weight of the link* (see at least Figures 1-6, and [0024]-[0030] in which links between nodes--participants which can be identified as influencers based on their links for ad targeting--are shown with link weights; the Examiner notes that it has already been shown in the rejection of prior claims that **Atazky and Ebanks** teach a "quantity of advertisements is associated with the profile based on..., and therefore **McCuller** is being used to show the idea of using link weights to identify nodes/social network participants for advertisement targeting)

Therefore, it would be obvious to one of ordinary skill in the art to combine **McCuller_** with **Atazky and Ebanks** because **Atazky** already aims to identify popular users for advertising purposes, and uses “weights” of influence based on their links within the social network, and decides various advertisement targeting principles such as type and amount of incentive, type of advertisement, etc., based on these principles, and using actual “link weights” for the same purposes would allow for a more measurable principle in identifying targeting nodes/influencers.

7. **Claims 38, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Ebanks, Pre-Grant Publication No. 2007/0198510 A1 and in further view of Zhuang, et al., Pre-Grant Publication No. 2008/0070209 A1.**

Regarding Claims 38 and 41, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and the medium of claim 25*

Atazky and Ebanks, however, does not appear to specify:

- *wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members*

Zhang teaches *wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members* (see Figure 3 and [0032]-[0035] in which directly and indirectly linked users relative to the main node are directly and indirectly linked to each other, and in which the links have weights that are used to identify influencers among all the users).

Therefore, it would be obvious to one of ordinary skill in the art to combine **Zhang_** with **Atazky and Ebanks** because **Atazky** already aims to identify popular users for advertising purposes, and uses "weights" of influence based on their links within the social network, and such a structure could easily include the situational claim as written, since the influencers could potentially be linked to anyone in a social network.

Regarding Claim 40, the combination of Atazky and Ebanks teaches:

- *the medium of claim 25*

Atazky further teaches:

- *wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members* (see Figure 12); the Examiner notes that while it seems the applicant may be trying to relate the specifics of the user links to the weighting of the links, these claims are dependent on claim 25, and therefore the Examiner has to examine the claims relative only to the invention laid out in claim 1 which only claims the identification

of the community, the ranking of the users, and the identification of the influencer, and therefore, the claims are simply describing various link configurations in the community as claimed.

Atazky and Ebanks, however, does not appear to specify:

- *wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members*

Zhang teaches *wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members* (see Figure 3 and [0032]-[0035] in which directly and indirectly linked users relative to the main node are directly and indirectly linked to each other, and in which the links have weights that are used to identify influencers among all the users).

Therefore, it would be obvious to one of ordinary skill in the art to combine **Zhang** with **Atazky and Ebanks** because **Atazky** already aims to identify popular users for advertising purposes, and uses "weights" of influence based on their links within the social network, and such a structure could easily include the situational claim as written, since the influencers could potentially be linked to anyone in a social network.

8. **Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Ebanks, Pre-Grant Publication No. 2007/0198510 A1 and in further view of Meng Muntz, et al., Pre-Grant Publication No. 2006/0271564 A1.**

Regarding Claims 43 and 49, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and medium of claim 48*

Atazky and Ebanks, however, does not appear to specify:

- *determining a weight of the community by identifying a first quantity of links between the plurality of members in the community*
- *identifying a second quantity of links between members outside the community*
- *determining the weight of the community*

Meng Muntz teaches:

- *determining a weight of the community by identifying a first quantity of links between the plurality of members in the community* (see Figures 7-9 and [0018], [0034]-[0036], and [0092]-[0096] in which links and weights are used to identify one community/sub-community as well as other communities/sub-communities)
- *identifying a second quantity of links between members outside the community* (see Figures 7-9 and [0018], [0034]-[0036], and [0092]-[0096] in which links and weights are used to identify one community/sub-community as well as other communities/sub-communities)
- *determining the weight of the community* (see Figures 7-9 and [0018], [0034]-[0036], and [0092]-[0096] in which links and weights are used to identify one community/sub-community as well as other communities/sub-communities and the overall weighting characteristics of each community and sub-community)

It would be obvious to one of ordinary skill in the art to combine **Meng Muntz** with **Atazky and Ebanks** because **Atazky and Ebanks** already identify links to users in social communities, and identifying link quantities, such as weightings in order to further define a community would give the community more definition and known characteristics, allowing more applications to the community.

Atazky, Ebanks, and Meng Muntz however, does not appear to specify:

- *as a ratio of the first quantity to the second quantity*

Meng Muntz does, however, teach:

- *determining the weight of the community* (see Figures 7-9 and [0018], [0034]-[0036], and [0092]-[0096] in which links and weights are used to identify one community/sub-community as well as other communities/sub-communities and the overall weighting characteristics of each community and sub-community)

Therefore, it would be obvious to one of ordinary skill in the art to combine **Meng Muntz** with **Atazky and Ebanks** because **Atazky and Ebanks** already identify links to users in social communities, and identifying link quantities, such as weightings in order to further define a community would give the community more definition and known characteristics, allowing more applications to the community, and using a ratio would use a known mathematical calculation to apply a particular variable to the community for targeting.

The Examiner notes that as written the claim includes *identifying a second quantity of links between members outside the community,* which as written would include all 'members' in existence outside the community in any way, shape, or form, which is extremely broad and is given little patentable weight given the large nature of most popular social networks today

Regarding Claims 44 and 48, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and medium of claim 25*

Atazky and Ebanks, however, does not appear to specify:

- *for each member of the community, determining a respective score of influence by determining a change between the weight of the community when a member*

is included in the community and the weight of the community when the member is excluded from the community

Meng Muntz teaches:

- *for each member of the community, determining a respective score of influence by determining a change between the weight of the community when a member is included in the community and the weight of the community when the member is excluded from the community* (see Figures 7-9 and [0018], [0034]-[0036], and [0092]-[0096] in which links and weights are used to identify one community/sub-community as well as other communities/sub-communities, in which a weight acts as a score, and in which individuals are identified and their influences in various communities are identified)

It would be obvious to one of ordinary skill in the art to combine **Meng Muntz** with **Atazky and Ebanks** because **Atazky and Ebanks** already identify links to users in social communities, and identifying link quantities, such as weightings in order to further define a community, as well as defining score and links for individuals and their relative influence on various identified sub-graphs/sub-communities would allow for better use of the weightings for various purposes such as targeting of advertisements.

9. **Claims 46 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Ebanks, Pre-Grant Publication No. 2007/0198510 A1 and in further view of Meek, et al., Pre-Grant Publication No. 2008/0005072 A1.**

Regarding Claims 46 and 51, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and medium of claim 25*

Atazky and Ebanks, however, does not appear to specify:

- *determining that an influencer of the community is an influencer of another community within the network*
- *associating advertisements relevant to the other community together with the advertisements with the profile of the influencer of the community and of the other community*

Meek teaches:

- *determining that an influencer of the community is an influencer of another community within the network* (see [0030]-[0048], and [0062]-[0067] in which various groups of contacts/friends in a community/network are identified and the interests of those groups are used to target the particular user)
- *associating advertisements relevant to the other community together with the advertisements with the profile of the influencer of the community and of the other community* (see [0030]-[0048], and [0062]-[0067] in which various groups of contacts/friends in a community/network are identified and the interests of those groups are used to target the particular user)

Therefore, it would be obvious to one of ordinary skill in the art to combine **Meek** with **Atazky and Ebanks** because **Atazky** already identifies influencers in various social network communities and targets advertisements related to the users and community, and identifying more than one community relative to the user for targeting would further enhance the targeting value of the user.

10. **Claims 47 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Ebanks, Pre-Grant Publication No. 2007/0198510 A1 and in further view of Official Notice.**

Regarding Claims 47 and 52, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and medium of claim 25*

Atazky and Ebanks, however, does not appear to specify:

- *iteratively optimizing the community to account for addition and removal of members from the plurality of members*

The Examiner, however, takes Official Notice that it is old and well known in the advertising arts to update a membership group or other group of users by adding or removing based on various factors. Targeting systems for cell phone companies, advertising companies such as Yahoo and Microsoft, and others segment and cluster populations iteratively. Therefore, it would be obvious to one of ordinary skill in the art to combine *iteratively optimizing the community to account for addition and removal of members from the plurality of members* with **Atazky and Ebanks** because **Atazky and Ebanks** already identify influencers based on their links and communities as well as identify communities, and updating the information on the users and communities would ensure accurate targeting abilities.

Response to Arguments

11. ***Regarding the rejections under 35 USC § 103***

The arguments have been considered, but are MOOT in light of the new rejection based on applicant's amendments to the claims.

Conclusion

12. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Luis A. Brown** whose telephone number is **571.270.1394.** The Examiner can normally be reached on M 12-5pm EST, T-F 9:30-4:30pm EST. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **ERIC STAMBER** can be reached at **571.272.6724**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair . Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to **571-273-8300**.

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**:

Randolph Building

401 Dulany Street

Alexandria, VA 22314.

/L. B./
Examiner, Art Unit 3622

/Michael Bekerman/
Primary Examiner, Art Unit 3622

Notice of References Cited	Application/Control No. 11/618,506	Applicant(s)/Patent Under Reexamination ROHAN ET AL.	
	Examiner LUIS BROWN	Art Unit 3622	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2008/0005072	01-2008	Meek et al.	707/3
*	B	US-2007/0260725	11-2007	McCuller, Patrick	709/224
*	C	US-2006/0271564	11-2006	Meng Muntz et al.	707/100
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	11618506
Filing Date	2006-12-29
First Named Inventor	Rohan
Art Unit	3622
Examiner Name	Luis A. Brown
Attorney Docket Number	16113-0206001

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button. Add

U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	11618506
	Filing Date	2006-12-29
	First Named Inventor	Rohan
	Art Unit	3622
	Examiner Name	Luis A. Brown
	Attorney Docket Number	16113-0206001

/L.B./	1	BASSANINI, Anna, Examiner, European Patent Office, EP Application No. 07865827.5, in European Search Report, mailed October 24, 2011, 7 pages.	☐
/L.B./	2	EP, "Notice from the European Patent Office dated 1 October 2007 concerning business methods," 1 November 2007 Official Journal of the European Patent Office, vol. 30, no. 11, pages 592-593, 2 pages.	☐
/L.B./	3	YUK, Seong Won, Authorized Officer, Korean Intellectual Property Office, PCT International Application No. PCT/ US2007/087984, filed December 18, 2007, in International Search Report mailed May 19, 2008, 10 pages.	☐
/L.B./	4	The State Intellectual Property Office of the People's Republic of China, Chinese Patent Application No. 200780051784.9, in Office Action mailed February 22, 2011, 5 pages.	☐

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature	/Luis Brown/	Date Considered	02/01/2012

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	11618506
Filing Date	2006-12-29
First Named Inventor	Rohan
Art Unit	3622
Examiner Name	Luis A. Brown
Attorney Docket Number	16113-0206001

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Drew W. Schoentrup/	Date (YYYY-MM-DD)	2012-01-20
Name/Print	Drew W. Schoentrup	Registration Number	62543

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 5917

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/618,506	12/29/2006	370	3622	16113-0206001

APPLICANTS

Terrence Rohan, Atherton, CA;
Tomasz J. Tunguz-Zawislak, San Francisco, CA;
Scott G. Sheffer, Palo Alto, CA;
Jeremiah Harmsen, Mountain View, CA;

**** CONTINUING DATA ***************************

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
01/30/2007

Foreign Priority claimed ❑ Yes ❑ No 35 USC 119(a-d) conditions met ❑ Yes ❑ No Verified and Acknowledged _____ Examiner's Signature	❑ Met after Allowance _____ Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		CA	7	36	3

ADDRESS

FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022
UNITED STATES

TITLE

NETWORK NODE AD TARGETING

FILING FEE RECEIVED		
1930	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	❑ All Fees ❑ 1.16 Fees (Filing) ❑ 1.17 Fees (Processing Ext. of time) ❑ 1.18 Fees (Issue) ❑ Other _____ ❑ Credit

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	11618506
Filing Date	2006-12-29
First Named Inventor	Rohan
Art Unit	3622
Examiner Name	Luis A. Brown
Attorney Docket Number	16113-0206001

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button. Add

U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	11618506
	Filing Date	2006-12-29
	First Named Inventor	Rohan
	Art Unit	3622
	Examiner Name	Luis A. Brown
	Attorney Docket Number	16113-0206001

/L.B./	1	The State Intellectual Property Office of the People's Republic of China, Chinese Patent Application No. 200780051784.9, in Office Action mailed February 28, 2012, 6 pages.	☐

If you wish to add additional non-patent literature document citation information please click the Add button **Add**

EXAMINER SIGNATURE

Examiner Signature	/Luis Brown/	Date Considered	04/06/2012

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	11618506
Filing Date	2006-12-29
First Named Inventor	Rohan
Art Unit	3622
Examiner Name	Luis A. Brown
Attorney Docket Number	16113-0206001

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Drew W. Schoentrup/	Date (YYYY-MM-DD)	2012-03-29
Name/Print	Drew W. Schoentrup	Registration Number	62543

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	11618506
Filing Date	2006-12-29
First Named Inventor	Rohan
Art Unit	3622
Examiner Name	Luis A. Brown
Attorney Docket Number	16113-0206001

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button. Add

U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	11618506
	Filing Date	2006-12-29
	First Named Inventor	Rohan
	Art Unit	3622
	Examiner Name	Luis A. Brown
	Attorney Docket Number	16113-0206001

	1	The State Intellectual Property Office of the People's Republic of China, Chinese Patent Application No. 200780051784.9, in Office Action mailed February 28, 2012, 6 pages.	☐

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	11618506
Filing Date	2006-12-29
First Named Inventor	Rohan
Art Unit	3622
Examiner Name	Luis A. Brown
Attorney Docket Number	16113-0206001

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Drew W. Schoentrup/	Date (YYYY-MM-DD)	2012-03-29
Name/Print	Drew W. Schoentrup	Registration Number	62543

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	12435291
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	Drew Schoentrup/line gauthier
Filer Authorized By:	Drew Schoentrup
Attorney Docket Number:	16113-0206001
Receipt Date:	30-MAR-2012
Filing Date:	29-DEC-2006
Time Stamp:	14:31:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	16113-0206001_IDS.pdf	612203 af1c3516576a51a0955a712c2712b5cad18e4722	no	4

Warnings:	
Information:	

A U.S. Patent Number Citation or a U.S. Publication Number Citation is required in the Information Disclosure Statement (IDS) form for autoloading of data into USPTO systems. You may remove the form to add the required data in order to correct the Informational Message if you are citing U.S. References. If you chose not to include U.S. References, the image of the form will be processed and be made available within the Image File Wrapper (IFW) system. However, no data will be extracted from this form. Any additional data such as Foreign Patent Documents or Non Patent Literature will be manually reviewed and keyed into USPTO systems.

2	Non Patent Literature	16113-0206CN1_OfficeAction.pdf	182793 cb315db23ceb7eb3050ba773ff45c2eb61d5e518	no	6

Warnings:

Information:

Total Files Size (in bytes):	794996

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	11618506
Filing Date	2006-12-29
First Named Inventor	Rohan
Art Unit	3622
Examiner Name	Luis A. Brown
Attorney Docket Number	16113-0206001

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button. Add

U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	11618506
	Filing Date	2006-12-29
	First Named Inventor	Rohan
	Art Unit	3622
	Examiner Name	Luis A. Brown
	Attorney Docket Number	16113-0206001

	1	BASSANINI, Anna, Examiner, European Patent Office, EP Application No. 07865827.5, in European Search Report, mailed October 24, 2011, 7 pages.	☐
	2	EP, "Notice from the European Patent Office dated 1 October 2007 concerning business methods," 1 November 2007 Official Journal of the European Patent Office, vol. 30, no. 11, pages 592-593, 2 pages.	☐
	3	YUK, Seong Won, Authorized Officer, Korean Intellectual Property Office, PCT International Application No. PCT/ US2007/087984, filed December 18, 2007, in International Search Report mailed May 19, 2008, 10 pages.	☐
	4	The State Intellectual Property Office of the People's Republic of China, Chinese Patent Application No. 200780051784.9, in Office Action mailed February 22, 2011, 5 pages.	☐

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	11618506
Filing Date	2006-12-29
First Named Inventor	Rohan
Art Unit	3622
Examiner Name	Luis A. Brown
Attorney Docket Number	16113-0206001

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Drew W. Schoentrup/	Date (YYYY-MM-DD)	2012-01-20
Name/Print	Drew W. Schoentrup	Registration Number	62543

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:

SHRINIVASAN, Sushil

P.O. Box 1022 FISH & RICHARDSON P.C. MINNEAPOLIS
Minnesota 55440-1022 USA

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY,OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 19 MAY 2008 (19.05.2008)
Applicant's or agent's file reference 161130206WO1	**FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. **PCT/US2007/087984**	International filing date *(day/month/year)* **18 DECEMBER 2007 (18.12.2007)**
Applicant **GOOGLE INC. et al**	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.
Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):
When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.
Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70
For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**
Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months**(or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/KR Korean Intellectual Property Office Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea	Authorized officer COMMISSIONER
Facsimile No. 82-42-472-7140	Telephone No. 82-42-481-5207

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under Article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule" and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the International Searching Authority, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where,e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see PCT Applicant's Guide, Volume I/A, Annexes B1 and B2).

The attention of the applicant is drawn to the fact that ammendments to the claims under Article 19 are not allowed where the International Searching Authority has declared, under Article 17(2), that no international search report would be established (see PCT Applicant's Guide, Volume I/A, paragraph 296).

What parts of the international application may be amended ?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Preliminary Examination Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When ? Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments ?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How ? Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are numbered, they must be renumbered consecutively (Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments ?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below,under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

(i) the claim is unchanged;
(ii) the claim is cancelled;
(iii) the claim is new;
(iv) the claim replaces one or more claims as filed;
(v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
   "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same manners; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
   "Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in canceling some claims and in adding new claims]:
   "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
   "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
   "Claims 1 - 10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under Article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceed 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be indentified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the proceduer before that Authority (see Rule 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

If a demand for international preliminary examination is made, the written opinion of the International Searching Authority will, except in certain cases where the International Preliminary Examining Authority did not act as International Searching Authority and where it has notified the International Bureau under Rule 66.1bis(b), be considered to be a written opinion of the International Preliminary Examining Authority. If a demand is made, the applicant may submit to the International Preliminary Examining Authority a reply to the written opinion together, where appropriate, with amendments before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later (Rule 43bis.1(c)).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to , the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the PCT Applicant's Guide, Volume II.

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
SHRINIVASAN, Sushil

P.O. Box 1022 FISH & RICHARDSON P.C. MINNEAPOLIS
Minnesota 55440-1022 USA

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing *(day/month/year)*	**19 MAY 2008 (19.05.2008)**
Applicant's or agent's file reference 161130206WO1	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2007/087984	**18 DECEMBER 2007 (18.12.2007)**	29 DECEMBER 2006 (29.12.2006)

International Patent Classification (IPC) or both national classification and IPC

G06Q 30/00(2006.01)i

Applicant

GOOGLE INC. et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.
For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/KR	Date of completion of this opinion	Authorized officer
Korean Intellectual Property Office Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302 -701, Republic of Korea Facsimile No. 82-42-472-7140	19 MAY 2008 (19.05.2008)	YUK, SEONG WON Telephone No.82-42-481-821

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2007/087984

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of :

   ☒ the international application in the language in which it was filed

   ☐ a translation of the international application into _____ , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of:

   a. type of material
      ☐ a sequence listing
      ☐ table(s) related to the sequence listing

   b. format of material
      ☐ on paper
      ☐ in electronic form

   c. time of filing/furnishing
      ☐ contained in the international application as filed.
      ☐ filed together with the international application in electronic form.
      ☐ furnished subsequently to this Authority for the purposes of search.

4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additioanl copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2007/087984

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-36	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-36	NO
Industrial applicability (IA)	Claims	1-36	YES
	Claims	None	NO

2. Citations and explanations :

Reference is made to the following documents:

D1: KR 10-2003-0076545 A (FREECHAL INC.) 26 September 2003
D2: KR 10-2001-0035449 A (YOON, YOUNG HYUN) 7 May 2001

D1 relates to a method and a system for advertising a community keyword on an Internet community service.
D2 relates to an advertisement method using a profile photograph.

I. Novelty

D1, which is considered to represent the most relevant state of the art, discloses a method for advertising a community keyword on an Internet community service for displaying an advertisement related to a community on a community web page providing the community service (D1, English abstract; claim 1; figure 2) .

The subject matter of present claim 1, 13 and 25 differs from D1 in identifying influencers and placing advertisements at the profiles of members.

Claims 2-12 are dependent claims of claim 1, claims 14-24 are dependent claims of claim 13, and claims 26-36 are dependent claims of claim 25.

Thus, the novelty of the subject matter of claims 1-36 can be acknowledged PCT Article 33(2)..

II. Inventive step

D2 discloses an advertisement method using a profile photograph, wherein the advertisement is inserted into the photograph of the individual (D2, English abstract; claim 1; figure 1-4) .
So, the skilled person would regard it a normal design procedure to combine all the features set out in claims 1, 13 and 25.

Claims 2-12 discloses additional feature for identifying communities and members and placing advertisement in addition to claim 1, claims 14-24 discloses additional feature for identifying communities and members and placing advertisement in addition to claim 13, and claims 26-36 discloses additional feature for identifying communities and members and placing advertisement in addition to claim 25.
However, the additional feature of claims 2-12, 14-24 and 26-36 is merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed.
So, the skilled person would regard it a normal design procedure to combine all the features set out

Continued on Supplemental Box

International application No.
PCT/US2007/087984

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**
Continuation of :

Box V

in claims 2-12, 14-24 and 26-36.

Thus, a skilled person can easily make the invention of claims 1-36 by simply combining D1 and D2, and the subject matter of claims 1-36 can not be regarded as involving an inventive step under PCT Article 33(3).

III. Industrial Applicability

The subject matter of claims 1-36 is considered to be industrially applicable under PCT Article 33(4).

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
161130206WO1		
International application No.	International filing date *(day/month/year)*	(Earliest) Priority Date *(day/month/year)*
PCT/US2007/087984	**18 DECEMBER 2007 (18.12.2007)**	29 DECEMBER 2006 (29.12.2006)

Applicant

GOOGLE INC. et al

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of **3** sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**
   a. With regard to the **language**, the international search was carried out on the basis of :
      ☒ the international application in the language in which it was filed
      ☐ a translation of the international application into _____ , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))
   b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).
   c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.
2. ☐ **Certain claims were found unsearchable** (See Box No. II)
3. ☐ **Unity of invention is lacking** (See Box No. III)
4. With regard to the **title,**
   ☒ the text is approved as submitted by the applicant.
   ☐ the text has been established by this Authority to read as follows:
5. With regard to the **abstract,**
   ☒ the text is approved as submitted by the applicant.
   ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. With regard to the drawings,
   a. the figure of the **drawings** to be published with the abstract is Figure No. **4**
      ☐ as suggested by the applicant.
      ☒ because the applicant failed to suggest a figure.
      ☐ because this figure better characterizes the invention.
   b. ☐ none of the figure is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/087984

A. CLASSIFICATION OF SUBJECT MATTER

G06Q 30/00(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 8 G06Q 30/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applictions for utility models since 1975.
Japanese utility models and application for utility models since 1975.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS(KIPO internal) & keyword: ADVERTISEMENT, COMMUNITY and PROFILE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 10-2003-0076545 A (FREECHAL INC.) 26 September 2003 See English abstract; claim 1; figure 2	1-36
Y	KR 10-2001-0035449 A (YOON, YOUNG HYUN) 7 May 2001 See English abstract; claim 1; figure 1-4	1-36
A	KR 10-2000-0064105 A (MOON, JEE HWAN) 6 November 2000 See English abstract	1-36
A	KR 10-2002-0068682 A (LEE, MIN KYU) 28 August 2002 See English abstract	1-36

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents,such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
19 MAY 2008 (19.05.2008)	**19 MAY 2008 (19.05.2008)**

Name and mailing address of the ISA/KR
Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea
Facsimile No. 82-42-472-7140

Authorized officer
YUK, SEONG WON
Telephone No. 82-42-481-8213

Document 2 of 2

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/US2007/087984

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR1020030076545A	26.09.2003	None	
KR1020010035449A	07.05.2001	None	
KR1020000064105A	06.11.2000	None	
KR1020020068682A	28.08.2002	None	

Electronic Patent Application Fee Transmittal

Application Number:	11618506
Filing Date:	29-Dec-2006
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Filer:	Drew Schoentrup/line gauthier
Attorney Docket Number:	16113-0206001

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
		Total in USD ($)		**180**

Electronic Acknowledgement Receipt

EFS ID:	11951120
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	Drew Schoentrup/line gauthier
Filer Authorized By:	Drew Schoentrup
Attorney Docket Number:	16113-0206001
Receipt Date:	30-JAN-2012
Filing Date:	29-DEC-2006
Time Stamp:	14:38:32
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$180
RAM confirmation Number	907
Deposit Account	061050
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	16113-0206001_IDS.pdf	612528 239e8424cf4315fa7995c1e7f7084d38a5829ad6	no	4
Warnings:					
Information:					
A U.S. Patent Number Citation or a U.S. Publication Number Citation is required in the Information Disclosure Statement (IDS) form for autoloading of data into USPTO systems. You may remove the form to add the required data in order to correct the Informational Message if you are citing U.S. References. If you chose not to include U.S. References, the image of the form will be processed and be made available within the Image File Wrapper (IFW) system. However, no data will be extracted from this form. Any additional data such as Foreign Patent Documents or Non Patent Literature will be manually reviewed and keyed into USPTO systems.					
2	Non Patent Literature	16113-0206EP1_SR.pdf	373423 0bbe21044e047a539be9a0314e944faea5608ba6	no	7
Warnings:					
Information:					
3	Non Patent Literature	16113-0206EP1_EP_Notice.pdf	175003 843f3dbb6a7c82a412aef2fc05985674b2670ef1	no	2
Warnings:					
Information:					
4	Non Patent Literature	16113-0206CN1_Office_Action.pdf	270176 2e977bf0d87419e5a0d39fa68da20692b94486c0	no	5
Warnings:					
Information:					
5	Non Patent Literature	16113-0206WO1_ISR.pdf	569039 e2be95628e14aedaed13667d9798ce9fa72f8ecd	no	10
Warnings:					
Information:					
6	Fee Worksheet (SB06)	fee-info.pdf	30124 a71f88680856ab460bb0df57435cf20fe62d371a	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	2030293		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Request For Continued Examination (RCE) Transmittal

Address to:
Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	11/618,506
Filing Date	December 29, 2006
First Named Inventor	Terrence Rohan, et al.
Group Art Unit	2419
Conf No.	5917
Examiner Name	Jayanti K. Patel
Attorney Docket Number	16113-0206001

This is a Request for Continued Examination (RCE) under 37 C.F.R. §1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. Submission required under 37 C.F.R. §1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s)

   a. ☐ Previously submitted. If a final Office action is outstanding, any amendment filed after the final Office action may be considered as a submission even if this box is not checked.

      i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

      ii. ☐ Other _____

   b. ☒ Enclosed

      i. ☒ Amendment/Reply

      ii. ☐ Affidavit(s)/Declaration(s)

      iii. ☐ Information Disclosure Statement (IDS)

      iv. ☒ Other Petition for Extension of Time

2. Miscellaneous

   a. ☐ Suspension of action on the above-identified application is requested under 37 C.F.R. §1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 C.F.R. §1.17(i) required)

   b. ☐ Other _____

3. Fee The RCE fee under 37 C.F.R. §1.17(e) is required by 37 C.F.R. §1.114 when the RCE is filed.

   a. ☒ The Director is hereby authorized to charge the following fees, or credit any overpayments, to Deposit Account No. 06-1050

      i. ☒ RCE fee required under 37 CFR 1.17(e)

      ii. ☒ Extension of time fee (37 CFR 1.136 and 1.17)

      iii. ☒ Other Any deficiencies

   b. ☐ Check in the amount of $_____ enclosed

   c. ☐ Payment by credit card (Form PTO-2038 enclosed)

SIGNATURE OF APPLICANT, ATTORNEY OR AGENT REQUIRED

Name (Print/Type)	Sushil Shrinivasan	*Registration No. (Attorney/Agent)*	L0368
Signature	/ Sushil Shrinivasan L0368 /	*Date*	December 9, 2010

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 2419
Serial No.	: 11/618,506	Examiner	: Jayanti K. Patel
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY TO OFFICE ACTION OF JUNE 10, 2010

This paper is filed in response to the Office Action mailed on June 10, 2010. Please consider the following:

Amendments to the Claims beginning on page 2 of this paper; and

Remarks beginning on page 9 of this paper.

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for displaying advertisements to members of a network, the method comprising:

identifying, by a computer, ~~one or more communities~~ a community within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the at least two indirectly linked members are each linked to a common member of the plurality of members;

~~for each community,~~ ranking, by the computer, each of the plurality of members included in **[[**a**]]** the community, wherein a rank of a member is based on a ~~number~~ quantity of members with whom the member is directly linked and a ~~number~~ quantity of members with whom the member is indirectly linked;

identifying, by the computer, ~~one or more~~ a plurality of influencers in the community ~~one or more communities,~~ wherein the ~~one or more~~ plurality of influencers are members of the community ~~one or more communities~~ with highest ranks; and

associating ~~placing~~, by the computer, ~~one or more~~ advertisements with **[[**at**]]** the profiles of the ~~one or more~~ plurality of influencers, wherein a quantity of advertisements associated with an influencer's profile depends upon a rank of the influencer in the community ~~in the one or more communities~~.

2. (Previously Presented) The method of claim 1, further comprising receiving information pertaining to a plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and information describing one or more members with whom each of the plurality of members is linked.

3. (Currently Amended) The method of claim 2, wherein identifying the ~~one or more communities~~ community comprises grouping members who are directly and indirectly linked to each other.

4. (Currently Amended) The method of claim 3, wherein two members are ~~directly~~ connected to each other through a link that has a weight, the method further comprising associating one or more advertisements with a profile of each of the two members, wherein a quantity of advertisements associated with the profile is based on the weight of the link.

5. (Cancelled)

6. (Currently Amended) The method of claim 2, further comprising identifying one or more common interests of the plurality of members of [[a]] the community based on the content of the profiles of the plurality of members.

7. (Cancelled)

8. (Cancelled)

9. (Original) The method of claim 2, wherein the network comprises an online social network.

10. (Original) The method of claim 9, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

11. (Previously Presented) The method of claim 1, wherein a member of the network belongs to more than one community.

12. (Original) The method of claim 1, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

13. – 24. (Cancelled)

25. (Currently Amended) A computer-readable medium storing instructions executable by one or more processing devices to perform operations for displaying advertisements to members of a network, the operations comprising:

identifying ~~one or more communities~~ a community within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the two members who are linked to each other indirectly are each directly linked to a same member of the plurality of members;

~~for each community,~~ ranking, by the computer, each of the plurality of members included in **[[**a**]]** the community, wherein a rank of a member is based on a ~~number~~ quantity of members with whom the member is directly linked and a ~~number~~ quantity of members with whom the member is indirectly linked;

identifying ~~one or more~~ a plurality of influencers in the community ~~one or more communities,~~ wherein the ~~one or more~~ plurality of influencers are members of the community ~~one or more communities~~ with highest ranks; and

associating ~~placing~~ ~~one or more~~ advertisements with **[[**at**]]** the profiles of the ~~one or more~~ plurality of influencers, wherein a quantity of advertisements associated with an influencer's profile depends upon a rank of the influencer in the community ~~in the one or more communities~~.

26. (Previously Presented) The medium of claim 25, the operations further comprising receiving information pertaining to the plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and information describing one or more members with whom each of the plurality of members is linked.

27. (Currently Amended) The medium of claim 26, wherein the operations for identifying ~~one or more communities~~ the community further comprises grouping members who are directly and indirectly linked to each other.

28. (Currently Amended) The medium of claim 27, wherein two members are directly connected to each other through a link that has a weight, the method further comprising associating one or more advertisements with a profile of each of the two members, wherein a quantity of advertisements associated with the profile is based on the weight of the link.

29. (Cancelled)

30. (Currently Amended) The medium of claim 26, the **[[**the**]]** operations further comprising identifying one or more common interests of the plurality of members of **[[**a**]]** the community based on the content of the profiles of the plurality of members.

31. (Cancelled)

32. (Cancelled)

33. (Previously Presented) The medium of claim 26, wherein the network comprises an online social network.

34. (Previously Presented) The medium of claim 33, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

35. (Previously Presented) The medium of claim 25, wherein a member of the network belongs to more than one community.

36. (Previously Presented) The medium of claim 25, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

37. (Previously Presented) The method of claim 1, wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members.

38. (Previously Presented) The method of claim 1, wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members.

39. (Previously Presented) The method of claim 1, wherein the common member is directly linked to another member of the plurality of members.

40. (Previously Presented) The medium of claim 25, wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members.

41. (Previously Presented) The medium of claim 25, wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members.

42. (Previously Presented) The medium of claim 25, wherein the common member is directly linked to another member of the plurality of members.

43. (New) The method of claim 1, further comprising determining a weight of the community by:

identifying a first quantity of links between the plurality of members in the community;

identifying a second quantity of links between members outside the community; and

determining the weight of the community as a ratio of the first quantity to the second quantity.

44. (New) The method of claim 1, further comprising, for each member of the community, determining a respective score of influence by determining a change between the weight of the community when a member is included in the community and the weight of the community when the member is excluded from the community.

45. (New) The method of claim 1, wherein associating advertisements with the profiles of each of the plurality of influencers comprises placing the advertisements on the profiles of each of the plurality of influencers.

46. (New) The method of claim 1, further comprising:

determining that an influencer of the community is an influencer of another community within the network; and

associating advertisements relevant to the other community together with the advertisements with the profile of the influencer of the community and of the other community.

47. (New) The method of claim 1, further comprising iteratively optimizing the community to account for addition and removal of members from the plurality of members.

48. (New) The medium of claim 25, the operations further comprising, for each member of the community, determining a respective score of influence by determining a change between a weight of the community when a member is included in the community and the weight of the community when the member is excluded from the community.

49. (New) The medium of claim 48, the operations further comprising determining the weight of the community by:

identifying a first quantity of links between the plurality of members in the community;

identifying a second quantity of links between members outside the community; and

determining the weight of the community as a ratio of the first quantity to the second quantity.

50. (New) The medium of claim 25, wherein associating advertisements with the profiles of each of the plurality of influencers comprises placing the advertisements on the profiles of each of the plurality of influencers.

51. (New) The medium of claim 25, the operations further comprising:

determining that an influencer of the community is an influencer of another community within the network; and

associating advertisements relevant to the other community together with the advertisements with the profile of the influencer of the community and of the other community.

52. (New) The medium of claim 25, the operations further comprising iteratively optimizing the community to account for addition and removal of members from the plurality of members.

REMARKS

Claims 1-4, 6, 9-12, 25-28, 30, and 33-52 are pending with claims 1 and 25 being independent. Claims 5, 7, 8, 13-24, 29, 31, and 32 have been cancelled without prejudice or disclaimer. Claims 1, 3, 4, 6, 25, 27, 28, and 30 have been amended. Claims 43-52 are new claims. Support for the amendments and the new claims is found throughout the specification, for example, in paragraphs [0032], [0033], [0045], [0050], [0054], [0057]. No new matter has been introduced.

35 U.S.C. § 103(a)

Claims 1-4, 6, 9-12, 25-28, 30-37, 39-40, and 42 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Atazky (U.S. Publication No. 2007/0121843) and Ebanks (U.S. Publication No. 2007/0198510 Ebanks).

Claims 5 and 29 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Atazky, Ebanks, and Morgernstern (U.S. Publication No. 2005/0149397).

Claims 38 and 41 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Atazky, Ebanks, and Zhuang (U.S. Publication No. 2008/0070209). Applicants respectfully traverse the rejections, and request reconsideration and withdrawal in light of the amendments to the claims presented above and for the following reasons.

Amended claim 1 recites, in part, "identifying, by a computer, a community within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the at least two indirectly linked members are each linked to a common member of the plurality of members; ranking, by the computer, each of the plurality of members included in the community, wherein a rank of a member is based on a quantity of members with whom the member is directly linked and a quantity of members with whom the member is indirectly linked; identifying, by the computer, a plurality of influencers in the community, wherein the plurality of influencers are members of the community with highest ranks; and associating, by the computer,

advertisements with the profiles of the plurality of influencers, wherein a quantity of advertisements associated with an influencer's profile depends upon a rank of the influencer in the community." (Emphasis added).

As recited in claim 1, advertisements are associated with profiles of influencers of a community. The influencers are members of the community with highest ranks. A quantity of advertisements associated with a profile of each influencer depends upon a rank of the influencer in the community. Neither Atazky nor Ebanks describes or suggests these features of claim 1.

The Office Action notes that Atazky does not disclose ranking each member included in a community. *See Office Action, page 4, 1st paragraph*. The Office relies on Ebanks to disclose this feature. *See Office Action, page 4, 2nd paragraph*. In paragraph [0025], Ebanks discloses determining a customer influence ranking score (i.e., a score assigned to Internet users of a networking site) for an online user as a function of two components: (i) the social networking breadth of the user and (ii) the reach (relevance) of online publishing generated by the user. *See Ebanks, [0025]*. However, Ebanks does not describe or suggest associating advertisements with the profiles of the users. Rather, Ebanks discloses determining an identity of users having the highest customer influence ranking scores and providing sellers with information regarding the users with the highest scores. *See Ebanks, paragraph [0047], FIG. 2*.

The Office Action asserts that Atazky discloses placing advertisements on a profile page. *See Office Action, page 3, last paragraph*. Atazky discloses ascertaining opinion leaders, i.e., users in a social network that are more central than others, and encouraging opinion leaders to advertise and market products or services. *See Atazky, paragraphs [0024], [0028]*. With reference to FIG. 17, Atazky discloses that one method to disseminate coupons is to display the coupon on a profile of an opinion leader. *See Atazky, paragraph [0086], [0242]*. However, neither the cited portion nor any other portion of Atazky describes or suggests that a quantity of advertisements associated with the opinion leader depends upon a rank of the opinion leader in the community.

Even if Atazky and Ebanks could, for the sake of argument, be combined, as suggested by the Office, such a combination will still not describe or suggest "associating, by the computer, advertisements with the profiles of the plurality of influencers, wherein a quantity of advertisements associated with an influencer's profile depends upon a rank of the influencer in

the community," as recited in claim 1. For these reasons, neither Atazky, Ebanks, nor any hypothetical combination of the two describes or suggests all the features recited in claim 1. Neither Morgernstern nor Zhuan remedy the deficiencies of Atazky or Ebanks. Accordingly, applicants submit that the rejection of claim 1 and its dependent claims should be withdrawn.

New claims 43-47 are also allowable at least because of their dependence from claim 1 and for the additional recitations that they contain. With reference to new claim 46, none of the references describes or suggests "determining that an influencer of the community is an influencer of another community within the network; and associating advertisements relevant to the other community together with the advertisements with the profile of the influencer of the community and of the other community." Accordingly, claim 46 is also allowable.

Applicants submit that the rejection of claim 25 and its dependent claims should also be withdrawn at least for reasons similar to those described above with reference to claim 1. New claims 48-52 are also allowable at least because of their dependence from claim 25 and for the additional recitations that they contain.

Applicants submit that all claims are in condition for allowance.

CONCLUSION

By responding in the foregoing remarks only to particular positions taken by the examiner, the applicant does not acquiesce with other positions that have not been explicitly addressed. In addition, the applicant's selecting some particular arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist. Finally, the applicant's decision to amend or cancel any claim should not be understood as implying that the applicant agrees with any positions taken by the examiner with respect to that claim or other claims.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Please apply a 3-month Petition for Extension of Time fee and charges or credits, if any, to Deposit Account 06-1050.

Respectfully submitted,

Date: December 9, 2010

/ Sushil Shrinivasan L0368 /
Sushil Shrinivasan
Reg. No. L0368

Customer Number 26192
Fish & Richardson P.C.
Telephone: (202) 783-5070
Facsimile: (877) 769-7945

40654979.doc

Electronic Patent Application Fee Transmittal

Application Number:	11618506
Filing Date:	29-Dec-2006
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Filer:	Sushil Shrinivasan/Edward Faeth
Attorney Docket Number:	16113-0206001

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 3 months with $0 paid	1253	1	1110	1110

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for continued examination	1801	1	810	810
		Total in USD ($)		**1920**

Electronic Acknowledgement Receipt

EFS ID:	8998381
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	Sushil Shrinivasan/Edward Faeth
Filer Authorized By:	Sushil Shrinivasan
Attorney Docket Number:	16113-0206001
Receipt Date:	09-DEC-2010
Filing Date:	29-DEC-2006
Time Stamp:	11:17:20
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1920
RAM confirmation Number	10054
Deposit Account	061050
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Extension of Time	161130206001EOT.pdf	47300 310602bf040ab6365ae3d7769e3fba01f2b48766	no	1
Warnings:					
Information:					
2	Request for Continued Examination (RCE)	161130206001RCE.pdf	91061 375609e24fb9f973783d58b05b218f7f50379009	no	1
Warnings:					
This is not a USPTO supplied RCE SB30 form.					
Information:					
3		161130206001AMD.pdf	127753 410f6a7b9e89c16adb640e504f399f9e8eb81174	yes	12

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment Submitted/Entered with Filing of CPA/RCE	1	1
	Claims	2	8
	Applicant Arguments/Remarks Made in an Amendment	9	12

Warnings:					
Information:					
4	Fee Worksheet (PTO-875)	fee-info.pdf	32017 02dd73cf411f52aee94877bbf3ad2de185b1fc4f	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	298131	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 2419
Serial No.	: 11/618,506	Examiner	: Jayanti K. Patel
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION FOR THREE-MONTH EXTENSION OF TIME UNDER 37 C.F.R. §1.136

Please extend the period for response to the final Office Action dated June 10, 2010, for three months, up to and including December 10, 2010.

The $1110 required fee is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. No other fees are believed due. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: December 9, 2010

/ Sushil Shrinivasan L0368 /
Sushil Shrinivasan
Reg. No. L0368

Customer Number 26192
Fish & Richardson P.C.
Telephone: (202) 783-5070
Facsimile: (877) 769-7945

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 11/618,506	Filing Date 12/29/2006	☐ To be Mailed

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	12/09/2010	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 34	Minus	** 36	= 0	X $ =		OR	X $52=	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $ =		OR	X $220=	0
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/MARY EVANS/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/618,506	12/29/2006	Terrence Rohan	16113-0206001	5917

26192 7590 06/10/2010

FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
BROWN, LUIS A	

ART UNIT	PAPER NUMBER
3622	

NOTIFICATION DATE	DELIVERY MODE
06/10/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	11/618,506	ROHAN ET AL.	
	Examiner	Art Unit	
	LUIS BROWN	3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-12,25-30 and 33-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-12,25-30 and 33-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. The following is a FINAL OFFICE ACTION in response to **Applicant Amendment to Application #11/618,506 filed on 03/29/2010.**
2. Claims 1-6, 8-12, 25-30, and 33-42 are now pending and have been examined.
3. Claims 7-8, 13-24, and 31-32 have been cancelled by the applicant.

Claim Rejections - 35 USC § 103(a)

The following is a quotation of **35 U.S.C. 103(a)** which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 1-4, 6, 9-12, 25-28, 30-37, 39-40, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Ebanks, Pre-Grant Publication No. 2007/0198510 A1.**

Regarding Claims 1 and 25 Atazky teaches:

A method (computer-readable medium) for displaying advertisements to members of a network, the method comprising:

- *identifying… one or more communities within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the at least two indirectly linked members are each linked to a common member of the plurality of members* (see [0089]-[0098], [0152]-[0159], [0191], [0198], and Figure 12 and [0214] in which a community within a social network comprising of a plurality of members is identified, including “intertrust levels” for directly linked members and indirectly linked members, who share a common directly linked member to the "community influencer; the Examiner notes that in [0214] it is described how the "intertrust level" weighting is given to the influencer not just by measuring direct trust "links" but also indirect, as shown by the thickness of the arrows also pointing from two indirect users to a direct user other than the main "influencer")
- *identifying… one or more influencers in the one or more communities, wherein the one or more influencers are members of the one or more communities with highest ranks* (see Figure 12, Figure 17, [0089], [0213], and [0242]-[0243] in which opinion leaders, which constitute influencers, are identified within the community)
- *placing… one or more advertisements at the profiles of the one or more influencers in the one or more communities* (see Figure 17 and [0242]-[0243] in which ads are placed on a profile page such as a MySpace page)

Atazky, however, does not appear to specify:

- *for each community, ranking…each of the plurality of members included in a community, wherein a rank of a member is based on a number of members with whom the member is directly linked and a number of members with whom the member is indirectly linked*

Ebanks teaches *for each community, ranking…each of the plurality of members included in a community, wherein a rank of a member is based on a number of members with whom the member is directly linked and a number of members with whom the member is indirectly linked* (see [0014], [0025]-[0026], and [0043]-[0044] in which each member is ranked based on direct and indirect links, such as "friends of friends"). It would be obvious to one of ordinary skill in the art to combine **Ebanks** with **Atazky** because **Atazky** already aims to identify popular users for advertising purposes, and uses weights of influence based on their links within the social network, and ranking all individuals based on their direct and indirect links would be a broader and more useful gage of which users, or “nodes,” would be effective for targeted viral-type advertising.

Regarding Claims 2 and 26, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and the computer-readable medium of claim 25*
- *receiving information pertaining to a plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and information describing one or more members with whom each of the plurality of members is linked* (see [0098] in which profile and social ties are determined, [0152]-[0160] in which data is received for all users within the identified network, including behavioral, interest, and other data, and [0188]-

[0201] in which profile information and link information up to a certain specified degree is received for users)

Regarding Claims 3 and 27, the combination of Atazky and Ebanks teaches:

- *the method of claim 2 and the computer-readable medium of claim 26*

Atazky further teaches:

- *wherein identifying the one or more communities comprises grouping members who are directly and indirectly linked to each other* (see [0193], [0201], [0242]-[0243], and Figure 12 in which a grouping of members with established links in a social network, up to a certain degree, is identified as the target community)

Regarding Claims 4 and 28 the combination of Atazky and Ebanks teaches:

- *the method of claim 3 and the computer-readable medium of claim 27*

Atazky further teaches:

- *wherein two members are directly connected to each other through a link* (see [0193], [0201] and Figure 12 in which the links connect a first "opinion leader" with one or more other members of the identified social network community)

Regarding Claims 6 and 30, the combination of Atazky and Ebanks teaches:

- *the method of claim 2 and the computer-readable medium of claim 26*

Ebanks further teaches:

- *identifying one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members* (see [0152]-[0160], [0192]-[0198], [0201], and [0210]-[0211] in which common interests of a plurality of members is identified from their profiles, including analyzing the text on the actual profile page as well as bookmarks and links)

Regarding Claims 9 and 33, the combination of Atazky and Ebanks teaches:

- *the method of claim 2 and the computer-readable medium of claim 26*

Atazky further teaches:

- *wherein the network comprises an online social network* (see [0092] and [0097]-[0099] in which the network comprises an online social network)

Regarding Claims 10 and 34, the combination of Atazky and Ebanks teaches:

- *the method of claim 9 and the computer-readable medium of claim 33*

Atazky further teaches:

- *wherein the profile comprises one or more web pages stored on a server hosting the online social network* (see Figures 2 and 17 and [0193]-[0198] in which a user profile includes a profile web page stored on a social network server that contextual information can be derived from and ads are placed on)

Regarding Claims 11 and 35, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and the compute-readable medium of claim 25*

Atazky further teaches:

- *wherein a member of the network belongs to more than one community* (see [0094], [0098], [0242]-[0243], and [0270]-[0271] in which a member of the network belongs to several communities and or/social networks)

Regarding Claims 12 and 36, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and the computer-readable medium of claim 25*

Atazky further teaches:

- *wherein the one or more advertisements are placed solely on the profiles of the one or more influencers* (see Figure 17, [0092], [0175], [0175]-[0187], [0210], and [0213] in which advertisers target lower or higher ranked opinion leaders, and the ads are placed on their profile pages, not on all pages in the network community)

Regarding Claim 31, the combination of Atazky and Ebanks teaches:

- *the computer-readable medium of claim 26*

Ebanks further teaches:

- *ranking the plurality of members belonging to each of the one or more communities based on the links between the members of each community* (see [0014], [0025]-[0026], and [0043]-[0044] in which each member is ranked based on direct and indirect links, such as "friends of friends") (see [0182], and [0210]-[0220] in which opinion leaders that meet the criteria are ranked according to their links). It would be obvious to one of ordinary skill in the art to combine **Ebanks** with **Atazky** because both aim to identify influencers based on their leadership and linked community within a social network, and use them for ad distribution, and ranking all members rather than only those meeting a certain criteria would allow the system to identify influencers who may have a larger network than those who fit the other criteria that otherwise would not be considered.

Regarding Claim 32, the combination of Atazky and Ebanks teaches:

- *the computer-readable medium of claim 31*

Atazky further teaches:

- *wherein the influencer is the member with the highest rank* (see Figure 12, [0213], and [0242]-[0243] in which the highest ranked members of a network are identified as opinion leaders). The Examiner notes that while in this reference one or more influencers, or opinion leaders may be selected within a social network community for the placement of ads, they are still identified by highest rank, and therefore the reference still reads on this claim.

Regarding Claims 37 and 39, the combination of Atazky and Ebanks teaches:

- *the method of claim 1*

Atazky further teaches:

- *wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members* (see Figure 12)
- *wherein the common member is directly linked to another member of the plurality of members* (see Figure 12); the Examiner notes that while it seems the applicant may be trying to relate the specifics of the user links to the weighting of the links, these claims are dependent on claim 1, and therefore the Examiner has to examine the claims relative only to the invention laid out in claim 1 which only claims the identification of the community, the ranking of the users, and the identification of the influencer, and therefore, the claims are simply describing various link configurations in the community as claimed.

Regarding Claims 40 and 42, the combination of Atazky and Ebanks teaches:

- *the medium of claim 25*

Atazky further teaches:

- *wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members* (see Figure 12)
- *wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members*
- *wherein the common member is directly linked to another member of the plurality of members* (see Figure 12); the Examiner notes that while it seems the applicant may be trying to relate the specifics of the user links to the weighting of the links, these claims are dependent on claim 25, and therefore the Examiner has to

examine the claims relative only to the invention laid out in claim 1 which only claims the identification of the community, the ranking of the users, and the identification of the influencer, and therefore, the claims are simply describing various link configurations in the community as claimed.

5. **Claims 5 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Ebanks, Pre-Grant Publication No. 2007/0198510 A1 and in further view of Morgenstern, et al., Pre-Grant Publication No. 2005/0149397 A1.**

Regarding Claims 5 and 29 the combination of Atazky and Ebanks teaches:

- *the method of claim 3 and the computer-readable medium of claim 27*

Atazky and Ebanks, however, does not appear to specify:

- *wherein the link has a weight*

Morgenstern teaches *wherein each link has a weight* (see [0125]-[0132] in which each relationship link is given a credibility value, which constitutes a weight, which is used to measure influence of the primary user as well as give a value to each link). It would be obvious to one of ordinary skill in the art to combine **Morgenstern** with **Atazky and Ebanks** because both references use an influential user profile in a social network to promote advertisement of goods or services and measure user influence by links in the network. Giving each link a weight would be another analysis tool by which an influencer could be measured, and would give the system of **Atazky** greater evaluation of influencers and thus more effective use of ad space from the influencers.

6. **Claims 38 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Ebanks, Pre-Grant Publication No. 2007/0198510 A1 and in further view of Zhuang, et al., Pre-Grant Publication No. 2008/0070209 A1.**

Regarding Claims 38 and 41, the combination of Atazky and Ebanks teaches:

- *the method of claim 1 and the medium of claim 25*

Atazky and Ebanks, however, does not appear to specify:

- *wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members*

Zhang teaches *wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members* (see Figure 3 and [0032]-[0035] in which directly and indirectly linked users relative to the main node are directly and indirectly linked to each other, and in which the links have weights that are used to identify influencers among all the users).

Response to Arguments

7. ***Regarding the rejections under 35 USC § 112:***

Regarding Claims 13-24, the applicant has cancelled the claims and therefore the rejection of claims 13-24 has been withdrawn.

Regarding Claims 25-36, the arguments have been considered in light of the applicant amendments, and ARE PERSUASIVE. The applicant's amendments have overcome the rejection and the rejection of claims 25-36 has been withdrawn.

8. ***Regarding the rejections under 35 USC § 101:***

Regarding Claims 1-12, the arguments have been considered in light of the applicant amendments, and ARE PERSUASIVE. The applicant's amendments have overcome the rejection and the rejection of claims 1-12 has been withdrawn.

Regarding Claims 13-24, the applicant has cancelled the claims and therefore the rejection of claims 13-24 has been withdrawn.

Regarding Claims 25-36, the arguments have been considered in light of the applicant amendments, and ARE PERSUASIVE. The applicant's amendments have overcome the rejection and the rejection of claims 25-36 has been withdrawn.

9. ***Regarding the rejections under 35 USC § 102***

The arguments have been considered but MOOT in light of the new grounds of rejection necessitated by applicant's amendments.

10. ***Regarding the rejections under 35 USC § 103***

The arguments have been considered, but are MOOT in light of the new rejection based on applicant's amendments to the claims.

Conclusion

11. Applicant amendment(s) necessitated the new grounds of rejection set forth in this Office Action. Therefore, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **LUIS A. BROWN** whose telephone number is (**571) 270-1394.** The Examiner can normally be reached on M 12-5pm EST, T-F 9:30-4:30pm EST. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **ERIC STAMBER** can be reached at (**571) 272-6724**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair . Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to **571-273-8300**.

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**:

Randolph Building

401 Dulany Street

Alexandria, VA 22314.

/L. B./
Examiner, Art Unit 3622

/Michael Bekerman/
Primary Examiner, Art Unit 3622

Notice of References Cited	Application/Control No. 11/618,506	Applicant(s)/Patent Under Reexamination ROHAN ET AL.	
	Examiner LUIS BROWN	Art Unit 3622	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2007/0198510	08-2007	Ebanks, Gordon A.	707/5
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 3622
Serial No.	: 11/618,506	Examiner	: Luis Brown
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY TO OFFICE ACTION OF NOVEMBER 27, 2009

This paper is filed in response to the Office Action mailed on November 27, 2009.

Please consider the following:

Amendments to the Specification beginning on page 2 of this paper;

Amendments to the Claims beginning on page 3 of this paper; and

Remarks beginning on page 9 of this paper.

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0059] of the specification with the following amended paragraph:

[0001] A number of implementations have been described. Nevertheless, it will be understood that various modifications are possible. For example, the aforementioned methods can be implemented as a computer-readable medium that stores instructions executable by one or more processing devices. **[[**the**]]** The advertisement server 108 can include a micropayment system. In one implementation, the micropayment system can track a number of times a member selects a URL in an advertisement on a member's profile. Instead of charging the advertiser each time the URL is selected, the micropayment system can charge the advertiser after a charges associated with the clicks have crossed a predefined threshold, such as ten dollars. Alternatively, the micropayment system can accept a payment from an advertiser and create an account that the fees are debited against. Accordingly, other implementations are within the scope of the following claims.

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (Currently Amended) A ~~computer-implemented~~ method for displaying advertisements to members of a network, the method comprising:

identifying, by a computer, one or more communities within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the at least two indirectly linked members are each linked to a common member of the plurality of members;

for each community, ranking, by the computer, each of the plurality of members included in a community, wherein a rank of a member is based on a number of members with whom the member is directly linked and a number of members with whom the member is indirectly linked;

identifying, by the computer, one or more influencers in the one or more communities, wherein the one or more influencers are members of the one or more communities with highest ranks; and

placing, by the computer, one or more advertisements at the profiles of the one or more influencers ~~members~~ in the one or more communities.

2. (Currently Amended) The method of claim 1, further comprising receiving information pertaining to a plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and ~~links between the plurality of~~ information describing one or more members with whom each of the plurality of members is linked.

3. (Currently Amended) The method of claim 2, wherein identifying the one or more communities comprises grouping members who are directly and indirectly linked to each other ~~based on the links established between the members of the network~~.

4. (Currently Amended) The method of claim 3, wherein two members are directly connected to each other through a **[[**the**]]** link ~~connects a first member with one or more members of the network~~.

5. (Currently Amended) The method of claim **[[**3**]]**, wherein **[[**each**]]** the link has a weight.

6. (Original) The method of claim 2, further comprising identifying one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members.

7. (Cancelled)

8. (Cancelled)

9. (Original) The method of claim 2, wherein the network comprises an online social network.

10. (Original) The method of claim 9, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

11. (Currently Amended) The method of claim 1, wherein a member of the network belongs to ~~one or~~ more than one community ~~of the plurality of communities~~.

12. (Original) The method of claim 1, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

13. – 24. (Cancelled)

25. (Currently Amended) ~~An advertisement server~~ A computer-readable medium storing instructions executable by one or more processing devices to perform operations for displaying advertisements to members of a network, the operations ~~advertisement server~~ comprising:

~~a means for~~ identifying one or more communities within a network, wherein the community comprises a plurality of members of the network, wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the two members who are linked to each other indirectly are each directly linked to a same member of the plurality of members;**[[**, and**]]**

for each community, ranking, by the computer, each of the plurality of members included in a community, wherein a rank of a member is based on a number of members with whom the member is directly linked and a number of members with whom the member is indirectly linked;

identifying in the one or more communities, wherein the one or more influencers are members of the one or more communities with highest ranks; and

~~a means for storing advertisements to be displayed on the profiles of one or more members of the identified communities~~.

placing one or more advertisements at the profiles of the one or more influencers in the one or more communities.

26. (Currently Amended) ~~An advertisement server~~ The medium of claim 25, the operations further comprising ~~a means for storing the~~ receiving information pertaining to the plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and ~~links between the plurality~~

~~of~~ information describing one or more members with whom each of the plurality of members is linked.

27. (Currently Amended) ~~An advertisement server~~ The medium of claim 26, wherein the operations for ~~the means for~~ identifying one or more communities ~~and identifying one or more influencers in the one or more communities is~~ further comprises ~~configured to group~~ grouping members who are directly and indirectly linked to each other ~~based on the links established between the members of the network~~.

28. (Currently Amended) ~~An advertisement server~~ The medium of claim 27, wherein two members are directly connected to each other through a **[[**the**]]** link ~~connects a first member with one or more members of the network~~.

29. (Currently Amended) ~~An advertisement server~~ The medium of claim **[[**27**]]** 28, wherein **[[**each**]]** the link has a weight.

30. (Currently Amended) ~~An advertisement server~~ The medium of claim 26, ~~wherein~~ the ~~means for~~ the operations further comprising identifying ~~one or more communities and identifying one or more influencers in the one or more communities is further configured to identify~~ one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members.

31. (Cancelled)

32. (Cancelled)

33. (Currently Amended) ~~An advertisement server~~ The medium of claim 26, wherein the network comprises an online social network.

34. (Currently Amended) ~~An advertisement server~~ The medium of claim 33, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

35. (Currently Amended) ~~An advertisement server~~ The medium of claim 25, wherein a member of the network belongs to ~~one or~~ more than one community ~~of the plurality of communities~~.

36. (Currently Amended) ~~An advertisement server~~ The medium of claim 25, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

37. (New) The method of claim 1, wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members.

38. (New) The method of claim 1, wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members.

39. (New) The method of claim 1, wherein the common member is directly linked to another member of the plurality of members.

40. (New) The medium of claim 25, wherein at least one member of the at least two indirectly linked members is directly linked to another member of the plurality of members.

41. (New) The medium of claim 25, wherein at least one member of the at least two directly linked members is indirectly linked to another member of the plurality of members.

42. (New) The medium of claim 25, wherein the common member is directly linked to another member of the plurality of members.

REMARKS

Claims 1-6, 9-12, 25-30, and 33-42 are pending with claims 1 and 25 being independent. Claims 7, 8, 13-24, 31, and 32 have been cancelled without prejudice or disclaimer. The specification and claims 1-5, 11, 25-30, and 33-36 have been amended. Claims 37-42 are new claims. Support for the amendments to the specification is found in U.S. Patent No. 6,285,999, which was previously incorporated by reference. Support for the amendments to the claims and the new claims is found, for example, in paragraphs [0024] – [0033] of the specification. No new matter has been introduced.

Specification

The specification has been amended to recite, in part, "the aforementioned methods can be implemented as a computer-readable medium that stores instructions executable by one or more processing devices." The amendment is not new matter for the following reasons. The M.P.E.P. states that an application may attempt to incorporate the content of another document or part thereof by reference to the document in the text of the specification and that the information incorporated is as much a part of the application as filed as if the text was repeated in the application, and should be treated as part of the text of the application as filed. *See M.P.E.P.* § 2163.07(b). In the present application, support for the amendments is found in U.S. Patent No. 6,285,999, which was previously incorporated by reference. *See Specification*, [0047]. The M.P.E.P. further states that replacing the identified material incorporated by reference with the actual text is not new matter. *See M.P.E.P.,* § 2163.07(b).

Further, the incorporation by reference is clearly sets forth in the specification, and (1) includes the root words "incorporation by reference"; and (2) clearly identifies the referenced patent. *See 37 C.F.R.*, § 1.57(b). For these reasons, applicants respectfully submit that the amendments to the specification are not new matter.

35 U.S.C. § 112

Claims 13-24 have been rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite. Claims 13-24 have been cancelled, thereby obviating the rejection of these claims.

Claims 25-36 have been rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite. Claims 31 and 32 have been cancelled, and claims 25-30 and 33-36 have been amended. The cancellation and the amendments obviate the rejections of these claims. Accordingly, applicants respectfully request that the rejection of claims 25-30 and 33-36 under 35 U.S.C. § 112, 2nd paragraph, be withdrawn.

35 U.S.C. § 101

Claims 1-12 have been rejected under 35 U.S.C. § 101 as being non-statutory. Claims 7 and 8 have been cancelled. The cancellation of the claims obviates the rejection of these claims. Further, pursuant to the amendments to claim 1, applicants respectfully submit that the claims 1-6 and 9-12 are statutory.

Claims 13-36 have been rejected under 35 U.S.C. § 101 as being non-statutory. Claims 13-24, 31, and 32 have been cancelled. The cancellation of the claims obviates the rejection of these claims. Further, pursuant to the amendments to claims 25-30 and 33-36, applicants respectfully submit that the the claims are statutory. Accordingly, applicants respectfully request that the rejections under 35 U.S.C. § 101 be withdrawn.

35 U.S.C. §§ 102 & 103

Claims 1-4, 6, 9-16, 18, 21-28, 30, and 33-36 have been rejected under 35 U.S.C. § 102(e) as being unpatentable over Atazky (U.S. Patent Publication 2007/0121843 A1). Claims 5, 17, and 29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Atazky in view of Morgenstern (U.S. Patent Publication No. 2005/0149397 A1). Claims 7-8, 19-20, and 31-32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Atazky in view of Zhuang (U.S. Patent Publication No. 2008/0070209 A1). Applicants traverses these rejections and respectfully requests reconsideration and withdrawal for the following reasons.

With respect to claim 1, Atazky, Morgenstern, Zhuang, or any proper combination of the three does not describe or suggest all the features recited in amended claim 1. Atazky describes a method whereby advertisers wish to deliver at least one of offerings and advertising messages relative to at least one of a product and a service to a target audience of users selected by a system operator during an advertising campaign. *See Atazky*, Abstract. Atazky describes opinion leaders as users who are more central than others, those with whom more people communicate, to whom more people listen and who more people trust. *See id.*, [0024]. To determine user influence ranking, Atazky describes periodically offering a user an incentive and subsequently following the impact that user's opinion had on other users. *See id.*, [0216].

Further, Atazky describes ranking users as "highly trusted" and "less trusted" users. *See id.*, figure 12 (below), [0214].

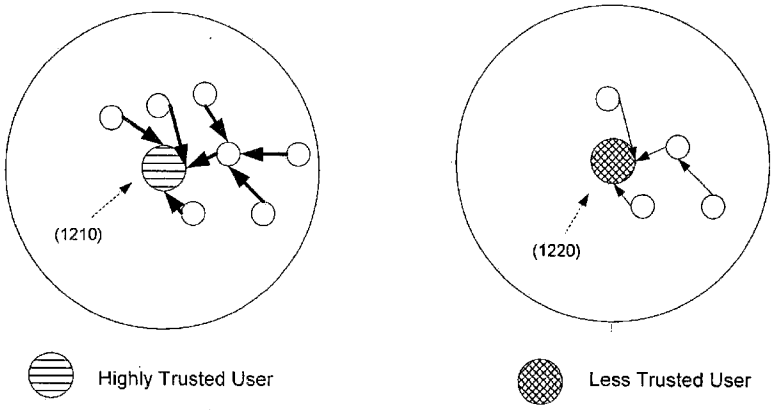


Fig. 12

Atazky states that a user is ranked as highly trusted based on strong inter-trust streaming in from his social network members. *See Atazky*, [0214]. Conversely, a lowly trusted user 1220 wins less trust from fewer of his network members. *See id.* Atazky describes a "trust level" that denotes an inter-trust between two members, for example, a user and an author. *See id.*, [0132], [0136]. Atazky further describes using parameters implying on the inter-trust between the user and a contact, the parameters including total reviews authored by contact and responded by user, total questions

initiated by the user to the contact and the total reviews authored by the contact, but which may have been contradicted by the user's reviews or voting, to model user ratings. *See id.*, [0201].

However, Atazky is silent regarding the method in which opinion leaders or highly trusted users are identified. In fact, Atazky states that ranking of trust within the context of a social network is outside the scope of Atazky's description. *See id.*, [0266]. Even assuming for the sake of argument that Atazky's "opinion leaders" could properly be deemed to be the claimed "influencers," Atazky nevertheless does not describe or suggest that influencers are identified from among multiple users who are linked to each other directly and indirectly, specifically, by ranking each user based on a number of users with whom the user is directly linked and a number of users with whom the user is indirectly linked, as recited in amended claim 1. To the contrary, Atazky states that users who are not closely linked to the user of the social network are not ranked, and may even be discarded to leverage information credibility, relevancy, and reduce noise level. *See id.*, [0131]. For these reasons, Atazky does not describe or suggest "wherein at least two members of the plurality of members are linked to each other directly and wherein at least two members of the plurality of members are linked to each other indirectly, wherein the two members who are linked to each other indirectly are each directly linked to a same member of the plurality of members; for each community, ranking, by the computer, each of the plurality of members included in a community, wherein a rank of a member is based on a number of members with whom the member is directly linked and a number of members with whom the member is indirectly linked," as recited in amended claim 1.

Morgenstern and Zhuang do not remedy the failures of Atazky. Morgenstern describes an advertising method that allows individuals or groups to interactively select brands from a service provider to associate with their online presence in exchange for the online service, as part of an online service, or for some reward. *See Morgenstern*, Abstract. No portion of Morgenstern describes or suggests ranking members to determine an influencer. Although Morgenstern describes determining a credibility of an agent A from a perspective of a viewer based on the relationship between.the agent and

the viewer (*see id.*, [0128]), Morgernstern does not describe or suggest ranking the agent or the viewer.

Further, Zhuang describes an influential person identification system that includes a characteristics ranking module that, in one embodiment, ranks the network users based on the number of friends a user has, whereby any type of direct connection between users assumes that the two users are friends. *See id.*, [0009]. Thus, Zhuang describes ranking users based only on a number of users with whom the user is directly connected. Zhuang does not describe or suggest ranking users based also on a number of users with whom the user is indirectly connected.

Thus, Atazky, taken alone or in any combination with either Morgenstern or Zhuang or both, does not describe or suggest all the features recited in amended claim 1. Accordingly, the rejections of claim 1 and its dependents should be withdrawn. The rejections of claim 25 and its dependents should also be withdrawn at least for reasons similar to claim 1 and for the additional recitations that they contain.

Applicants respectfully submit that all claims are in condition for allowance.

CONCLUSION

By responding in the foregoing remarks only to particular positions taken by the examiner, the applicant does not acquiesce with other positions that have not been explicitly addressed. In addition, the applicant's selecting some particular arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist. Finally, the applicant's decision to amend or cancel any claim should not be understood as implying that the applicant agrees with any positions taken by the examiner with respect to that claim or other claims.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Please apply a 1-month Petition for Extension of Time fee and charges or credits, if any, to deposit account 06-1050.

Respectfully submitted,

Date: March 29, 2010

/ Sushil Shrinivasan L0368 /
Sushil Shrinivasan
Reg. No. L0368

Fish & Richardson P.C.
PTO Customer No. 26192

Telephone: (202) 783-5070
Facsimile: (877) 769-7945

Electronic Patent Application Fee Transmittal

Application Number:	11618506
Filing Date:	29-Dec-2006
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Filer:	Sushil Shrinivasan/Nancy Grant
Attorney Docket Number:	16113-0206001

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 1 month with $0 paid	1251	1	130	130

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**130**

Electronic Acknowledgement Receipt

EFS ID:	7306050
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	Sushil Shrinivasan/Nancy Grant
Filer Authorized By:	Sushil Shrinivasan
Attorney Docket Number:	16113-0206001
Receipt Date:	29-MAR-2010
Filing Date:	29-DEC-2006
Time Stamp:	15:28:42
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$130
RAM confirmation Number	1949
Deposit Account	061050
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1		16113-0206001reply.pdf	351083 fff3220ebf95eec609c4f9867c3560db00906382	yes	14

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Specification	2	2
Claims	3	8
Applicant Arguments/Remarks Made in an Amendment	9	14

Warnings:

Information:

2	Fee Worksheet (PTO-875)	fee-info.pdf	30071 ab8e39def10f7247bdff03a115c3d5bd83d0018e	no	2

Warnings:

Information:

Total Files Size (in bytes):	381154

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 11/618,506	Filing Date 12/29/2006	☐ To be Mailed

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	03/29/2010	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 26	Minus	** 36	= 0	X $ =		OR	X $52=	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $ =		OR	X $220=	0
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/STELLA LITTLE/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/618,506	12/29/2006	Terrence Rohan	16113-0206001	5917

26192 7590 11/27/2009

FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
BROWN, LUIS A	

ART UNIT	PAPER NUMBER
3622	

NOTIFICATION DATE	DELIVERY MODE
11/27/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	11/618,506	ROHAN ET AL.	
	Examiner	Art Unit	
	LUIS BROWN	3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 December 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/29/06, 07/17/08, 02/06/09, 02/19/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. The following is a non-final, first office action in response to **Application #11618506 filed on 12/29/2006.**

2. Claims 1-36 are now pending and have been examined.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to Claims 13-24, the claims are directed towards an ad server, which would fall under the statutory category of machine or apparatus. But, it is unclear what structure is present in the invention as the claim recites only an ad server and an inventory. The claimed components of the server could simply be software and stored data. Paragraphs [0041]-[0042] of the specification give no further structure to the claimed ad server.

With regard to Claims 25-36, the claims are directed towards an ad server, which would fall under the statutory category of machine or apparatus. But, it is unclear what structure is present in the invention as the claim recites only an ad server and a "means for storing advertisements." The claimed components of the server could simply be software and stored data. Paragraphs [0041]-[0042] of the specification give no

further structure to the claimed ad server. Other portions of the specification give no defined structure to the means for storing advertisements.

Therefore, claims 13-36 do not distinctly claim and point out the structure of the system in the invention and appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claims 1-12** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, as it claims a method, but is not tied to a particular machine or apparatus, and does not satisfy the other statutory requirements as laid out below:

> A claimed process is eligible for patent protection under 35 U.S.C. § 101 if:
> "(1) It is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. See Benson, 409 U.S. at 70 ('Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines.'); Diehr, 450 U.S. at 192 (holding that use of mathematical formula in process 'transforming or reducing an article to a different state or thing' constitutes patent-eligible subject matter); see also Flook, 437 U.S. at 589 n.9 ('An argument can be made [that the Supreme] Court has only recognized a process as within the statutory definition when it either was tied to a particular apparatus or operated to change materials to a 'different state or thing' '); Cochrane v. Deener, 94 U.S. 780, 788 (1876) ('A process is...an act, or a series of acts, performed upon the subject- matter to be transformed and reduced to a different state or thing.').7 A claimed process involving a fundamental principle that uses a particular machine or apparatus would not pre-empt uses of the principle that do not also use the specified machine or apparatus in the manner claimed. And a claimed process that transforms a particular article to a specified different state or thing by applying a fundamental principle would not pre-empt the use of the principle to transform any other article, to transform the same article but in a manner not covered by the claim, or to do anything other than transform the specified article." (In re Bilski, 88 USPQ2d 1385, 1391 (Fed. Cir. 2008))

Also noted in Bilski is the statement, "Process claim that recites fundamental principle, and that otherwise fails 'machine-or-transformation' test for whether such claim is drawn to patentable subject matter under 35 U.S.C. §101, is not rendered patent eligible by mere field-of-use limitations; another corollary to machine-or- transformation test is that recitation of specific machine or particular transformation of specific article does not transform unpatentable principle into patentable process if recited machine or transformation constitutes mere 'insignificant post-solution activity.'" (In re Bilski, 88 USPQ2d 1385, 1385 (Fed. Cir. 2008)) Examples of insignificant post- solution activity include data gathering and outputting. Furthermore, the machine or transformation must impose meaningful limits on the scope of the method claims in order to pass the machine-or-transformation test. It is also noted that the mere recitation of a machine in the preamble in a manner such that the machine fails to patentably limit the scope of the claim does not make the claim statutory under 35 U.S.C. § 101, as seen in the Board of Patent Appeals Informative Opinion Ex parte Langemyr et al, (Appeal 2008-1495).

The examiner therefore requests that the applicant amend claims 1-10 to meet the requirements for patentable statutory subject matter under 35 U.S.C. 101, and suggests doing so by showing at least one significant step of the invention being performed or executed on or by a machine or apparatus.

Claims 13-36 are rejected under 35 U.S.C. 101 because the claims are directed towards an ad server, which would fall under the statutory category of machine or apparatus. But, it is unclear what structure is present in the invention as the claim recites only an ad server and an inventory (claims 13-24) and a “means for storing advertisements (claims 25-36).” The claimed components of the server could simply be software and stored data. Paragraphs [0041]-[0042] of the specification give no further

structure to the claimed ad server. Other portions of the specification give no defined structure to a means for storing advertisements.

Therefore, claims 13-36 are non-statutory and appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-4, 6, 9-16, 18, 21-28, 30, and 33-36 are rejected under 35 U.S.C. 102(e) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1.

Regarding Claims 1, 13, and 25 Atazky teaches:

A computer-implemented method for displaying advertisements to members of a network, the method comprising:

- *identifying one or more communities within a network, wherein the community comprises a plurality of members of the network* (see [0089]-[0098], [0152]-[0159], [0191], [0198], and Figure 12 in which a community within a social network comprising of a plurality of members is identified)
- *identifying one or more influencers in the one or more communities* (see Figure 12, Figure 17, [0089], [0213], and [0242]-[0243] in which opinion leaders, which constitute influencers, are identified within the community)

- *placing one or more advertisements at the profiles of one or more members in the one or more communities* (see Figure 17 and [0242]-[0243] in which ads are placed on a profile page such as a MySpace page)

Regarding Claims 2, 14, and 26, Atazky teaches:

- *the method of claim 1 and the ad servers of claims 13 and 25*
- *receiving information pertaining to a plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and links between the plurality of members* (see [0098] in which profile and social ties are determined, and [0188]-[0201] in which profile information and link information up to a certain specified degree is received for users)

Regarding Claims 3, 15, and 27 Atazky teaches:

- *the method of claim 2 and the ad servers of claims 14 and 26*
- *wherein identifying the one or more communities comprises grouping members based on the links established between the members of the network* (see [0193], [0201], [0242]-[0243], and Figure 12 in which a grouping of members with established links in a social network, up to a certain degree, is identified as the target community)

Regarding Claims 4, 16, and 28 Atazky teaches:

- *the method of claim 3 and the ad servers of claims 15 and 27*
- *wherein the link connects a first member with one or more members of the network* (see [0193], [0201] and Figure 12 in which the links connect a first "opinion leader" with one or more other members of the identified social network community)

Regarding Claims 6, 18, and 30 Atazky teaches:

- *the method of claim 2 and the ad servers of claims 14 and 26*
- *identifying one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members* (see [0154], [0192]-[0198], [0201], and [0210]-[0211] in which common interests of a plurality of members is identified from their profiles, including analyzing the text on the actual profile page as well as bookmarks and links)

Regarding Claims 9, 21, and 33 Atazky teaches:

- *the method of claim 2 and the ad servers of claims 14 and 26*
- *wherein the network comprises an online social network* (see [0092] and [0097]-[0099] in which the network comprises an online social network)

Regarding Claims 10, 22, and 34 Atazky teaches:

- *the method of claim 9 and the ad servers of claims 21 and 33*
- *wherein the profile comprises one or more web pages stored on a server hosting the online social network* (see Figures 2 and 17 and [0193]-[0198] in which a user profile includes a profile web page stored on a social network server that contextual information can be derived from and ads are placed on)

Regarding Claims 11, 23, and 35 Atazky teaches:

- *the method of claim 1 and the ad servers of claims 13 and 25*
- *wherein a member of the network belongs to one or more of the plurality of communities* (see [0094], [0098], [0242]-[0243], and [0270]-[0271] in which a member of the network belongs to several communities and or/social networks)

Regarding Claims 12, 24, and 36 Atazky teaches:

- *the method of claim 1 and the ad servers of claims 13 and 25*

- *wherein the one or more advertisements are placed solely on the profiles of the one or more influencers* (see Figure 17, [0092], [0175], [0175]-[0187], [0210], and [0213] in which advertisers target lower or higher ranked opinion leaders, and the ads are placed on their profile pages, not on all pages in the network community)

Claim Rejections - 35 USC § 103(a)

The following is a quotation of **35 U.S.C. 103(a)** which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. **Claims 5, 17, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Morgenstern, et al., Pre-Grant Publication No. 2005/0149397 A1.**

Regarding Claims 5, 17, and 29 Atazky teaches:

- *the method of claim 3 and the ad servers of claims 15 and 27*

Atazky, however, does not appear to specify:

- *wherein each link has a weight*

Morgenstern teaches *wherein each link has a weight* (see [0125]-[0132] in which each relationship link is given a credibility value, which constitutes a weight, which is used to

measure influence of the primary user as well as give a value to each link). It would be obvious to one of ordinary skill in the art to combine **Morgenstern** with **Atazky** because both references use an influential user profile in a social network to promote advertisement of goods or services and measure user influence by links in the network. Giving each link a weight would be another analysis tool by which an influencer could be measured, and would give the system of **Atazky** greater evaluation of influencers and thus more effective use of ad space from the influencers.

9. **Claims 7-8, 19-20, and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atazky et al., Pre-Grant Publication No. 2007/0121843 A1 in view of Zhuang, et al., Pre-Grant Publication No. 2008/0070209 A1.**

Regarding Claims 7, 19, and 31, Atazky teaches:

- *the method of claim 2 and the ad servers of claims 14 and 26*
- *ranking the plurality of (members) belonging to each of the one or more communities based on the links between the members of each community* (see [0182], and [0210]-[0220] in which opinion leaders that meet the criteria are ranked according to their links)

Atazky, however, does not appear to specify:

- *ranking the plurality of <u>members</u> belonging to each of the one or more communities based on the links between the members of each community*

Zhuang teaches *ranking the plurality of members belonging to each of the one or more communities based on the links between the members of each community* (see Figure 2 and [0030] in which all members of the network community are ranked according to their links). It would be obvious to one of ordinary skill in the art to combine **Zhuang** with

Atazky because both aim to identify influencers based on their leadership and linked community within a social network, and use them for ad distribution, and ranking all members rather than only those meeting a certain criteria would allow the system to identify influencers who may have a larger network than those who fit the other criteria that otherwise would not be considered.

Regarding Claims 8, 20, and 32, the combination of Atazky and Zhuang teaches:

- *the method of claim 7 and the ad servers of claims 19 and 31*

Atazky further teaches:

- *wherein the influencer is the member with the highest rank* (see Figure 12, [0213], and [0242]-[0243] in which the highest ranked members of a network are identified as opinion leaders). The Examiner notes that while in this reference one or more influencers, or opinion leaders may be selected within a social network community for the placement of ads, they are still identified by highest rank, and therefore the reference still reads on this claim.

Conclusion

10. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Luis A. Brown** whose telephone number is **571.270.1394.** The Examiner can normally be reached on Monday-Thursday, 9:30am-4:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **ERIC STAMBER** can be reached at **571.272.6724**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair . Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to **571-273-8300**.

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**:

Randolph Building

401 Dulany Street

Alexandria, VA 22314.

/L. B./
Examiner, Art Unit 3622

/Michael Bekerman/
Examiner, Art Unit 3622

Notice of References Cited	Application/Control No. 11/618,506	Applicant(s)/Patent Under Reexamination ROHAN ET AL.	
	Examiner LUIS BROWN	Art Unit 3622	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2007/0121843	05-2007	Atazky et al.	379/114.13
*	B	US-2005/0149397	07-2005	Morgenstern et al.	705/014
*	C	US-2008/0070209	03-2008	Zhuang et al.	434/236
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11618506	ROHAN ET AL.
	Examiner	Art Unit
	LUIS BROWN	3622

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search	11/17/2009	Luis Brown
Continuity and Forward/Backward Search	11/17/2009	Luis Brown
Google Search	11/17/2009	Luis Brown
See EASt Search History	11/17/2009	Luis Brown

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

/LUIS BROWN/ Examiner.Art Unit 3622	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 2616

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
/L.B./	AL	KR2003-0076545	9/26/2003	Korea			Abstract	
/L.B./	AM	KR2001-0035449	5/7/2001	Korea			Abstract	
/L.B./	AN	KR2000-0064105	11/6/2000	Korea				X
/L.B./	AO	KR2002-0068682	8/28/2002	Korea			Abstract	
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AQ	
	AR	
	AS	
	AT	

Examiner Signature	Date Considered
/Luis Brown/	10/16/2009

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 2419

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
/L.B./	A1	6,026,368	02/15/2000	Brown et al.			07/17/1995
/L.B./	A2	6,167,382	12/26/2000	Sparks et al.			06/01/1998
/L.B./	A3	6,401,075	06/04/2002	Mason et al.			02/14/2000
/L.B./	A4	6,985,882	01/10/2006	Del Sesto			02/05/1999
/L.B./	A5	5,948,061	09/07/1999	Merriman			10/29/1996
/L.B./	A6	7,039,599	05/02/2006	Merriman			06/15/1998
/L.B./	A7	5,724,521	03/03/1998	Dedrick			11/03/1994
/L.B./	A8	5,740,549	04/14/1998	Reilly et al.			06/12/1995
/L.B./	A9	5,848,397	12/08/1998	Marsh et al.			04/19/1996
/L.B./	A10	6,078,914	06/20/2000	Redfern			12/09/1996
/L.B./	A11	6,144,944	11/07/2000	Kurtzman, II et al.			04/22/1998
/L.B./	A12	6,044,376	03/28/2000	Kurtzman, II			04/24/1997
/L.B./	A13	6,269,361	07/31/2001	Davis et al.			05/28/1999
/L.B./	A14	7,136,875	01/14/2006	Anderson et al.			02/26/2003
/L.B./	A15	95/001,073		Reexamination of Stone et al.			09/30/2004
/L.B./	A16	95/001,061		Reexamination of Stone et al.			09/03/2002
/L.B./	A17	95/001,069		Reexamination of Dean et al.			07/11/2002
/L.B./	A18	95/001,068		Reexamination of Stone et al.			12/07/2002

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
/L.B./	B1	WO 97/21183	06/12/1997	WIPO				In English

Examiner Signature	Date Considered
/Luis Brown/	10/16/2009

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 2419

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
/L.B./	C1	AdForce, Inc., A Complete Guide to AdForce, Version 2.6, 1998
/L.B./	C2	AdForce, Inc., S-1/A SEC Filing, May 6, 1999
/L.B./	C3	AdKnowledge Campaign Manager: Reviewer's Guide, AdKnowledge, August 1998
/L.B./	C4	AdKnowledge Market Match Planner: Reviewer's Guide, AdKnowledge, May 1998
/L.B./	C5	Ad-Star.com website archive from www. Archive.org, Apr. 12, 1997 and Feb 1, 1997
/L.B./	C6	Baseview Products, Inc., AdManagerPro Administration Manual v. 2.0, December 1998
/L.B./	C7	Baseview Products, Inc., ClassManagerPro Administration Manual v. 1.0.5, February 1, 1997
/L.B./	C8	Business Wire, "Global Network, Inc. Enters Into Agreement in Principle With Major Advertising Agency," Oct. 4, 1999
/L.B./	C9	Information Access Technologies, Inc., Aaddzz brochure, "The Best Way To Buy And Sell Web Advertising Space," © 1997
/L.B./	C10	Information Access Technologies, Inc., Aaddzz.com website archive from www. Archive.org, archived on Jan. 30, 1998
/L.B./	C11	Zeff, R. et al., Advertising on the Internet, 2nd Ed., John Wiley & Sons, 1999
/L.B./	C12	Dedrick, R., Interactive Electronic Advertising, IEEE, 1994
/L.B./	C13	Dedrick, R., A Consumption Model for Targeted Electronic Advertising, Intel Architecture Labs, IEEE, 1995
/L.B./	C14	Request for Reexamination of U.S. Patent No. 7,240,025 B2, Control No. 95/001,073
/L.B./	C15	Request for Reexamination of U.S. Patent No. 6,446,045 B1, Control No. 95/001,061
/L.B./	C16	Request for Reexamination of U.S. Patent No. 7,249,059 B2, Control No. 95/001,069
/L.B./	C17	Request for Reexamination of U.S. Patent No. 6,829,587 B2, Control No. 95/001,068

Examiner Signature	Date Considered
/Luis Brown/	10/16/2009

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 5917

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/618,506	12/29/2006	370	3622	16113-0206001

APPLICANTS

Terrence Rohan, Atherton, CA;
Tomasz J. Tunguz-Zawislak, San Francisco, CA;
Scott G. Sheffer, Palo Alto, CA;
Jeremiah Harmsen, Mountain View, CA;

**** CONTINUING DATA ***************************

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
01/30/2007

Foreign Priority claimed ❑ Yes ❑ No 35 USC 119(a-d) conditions met ❑ Yes ❑ No Verified and Acknowledged _____ Examiner's Signature	❑ Met after Allowance _____ Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		CA	7	36	3

ADDRESS

FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022
UNITED STATES

TITLE

NETWORK NODE AD TARGETING

FILING FEE RECEIVED		
1930	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	❑ All Fees ❑ 1.16 Fees (Filing) ❑ 1.17 Fees (Processing Ext. of time) ❑ 1.18 Fees (Issue) ❑ Other _____ ❑ Credit

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	("20080091610").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2009/10/22 13:25
S2	1	("20080059992").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2009/10/22 13:25
S3	1	("20080033776").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2009/10/22 13:26
S4	1	("20070150537").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2009/10/22 13:32
S5	1	("20050149397").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2009/10/22 13:33
S6	1	("20050203801").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2009/10/22 13:34

S7	1118	yoon.in. and profile	US-PGPUB; USPAT; EPO; JPO	OR	ON	2009/10/22 13:37
S8	0	freechal.in. and community	US-PGPUB; USPAT; EPO; JPO	OR	ON	2009/10/22 13:38
S9	0	freechal.in.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2009/10/22 13:38
S10	0	("(socialadjnetwork)same(communityorgroup)same (influencerorauthorityorleaderorpopular $3orcelebrityorhigh$3)same(adoradvert$7)").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2009/10/22 13:46
S11	56	(social adj network)same(community or group)same (influencer or authority or leader or popular$3 or celebrity or high$3)same(ad or advert$7)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2009/10/22 13:47
S12	144046	mine or mined or mining	US-PGPUB; USPAT; EPO; JPO	OR	ON	2009/10/22 13:52
S13	0	S10 and S12	US-PGPUB; USPAT; EPO; JPO	OR	ON	2009/10/22 13:53
S14	26	S11 and S12	US-PGPUB; USPAT; EPO; JPO	OR	ON	2009/10/22 13:53

S15	1	("6285999").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2009/10/23 12:27

11/17/2009 4:38:00 PM
C:\Documents and Settings\lbrown\My Documents\EAST\Workspaces\11618506- Ads in a Profile of Community Influencer.wsp

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 2419

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
/L.B./	1	6,285,999	9/4/2001	Page			
/L.B./	2	6,799,176	9/28/2004	Page			
/L.B./	3	7,058,628	6/6/2006	Page			
/L.B./	4	7,269,587	9/11/2007	Page			
	5						
	6						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
	7							
	8							
	9							
	10							
	11							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
/L.B./	12	Slashdot; SourceForge, Inc., http://slashdot.org/; (accessed 2/19/2009), 32 pages
/L.B./	13	Huomay.com; David Harry; http://www.huomah.com/; (accessed 2/19/2009); 6 pages
	14	
	15	

Examiner Signature	Date Considered
/Luis Brown/	10/16/2009

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Terrence Rohan, et al.
Serial No. : Unknown
Filed : Herewith
Title : NETWORK NODE AD TARGETING

Art Unit : Unknown
Examiner : Unknown

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants request consideration of the references listed on the attached PTO-1449 form. Under 37 C.F.R. § 1.98 (a)(2)(ii), only copies of foreign patent documents and/or non-patent literature are enclosed. Copies of any listed U.S. patents or U.S. patent application publications can be provided upon request.

This statement is being filed with the application. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: December 29, 2006

Cheng C. Ko
Reg. No. 54,227

Fish & Richardson P.C.
PTO Customer No. 26192
Telephone: (858) 678-5070
Facsimile: (858) 678-5099
10695364.doc

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-206001	Application No.
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
	AL							
	AM							
	AN							
	AO							
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
/L.B./	AQ	Baumes, Jeffrey, et al., Efficient Identification of Overlapping Communities, Intelligence and Security Informatics, Springer Berlin/Heidelberg publ., pp. 27-36 (2005)
/L.B./	AR	Olsen, Stefanie, Turning Social Network Traffic Into Dollars, www.news.com, 10/18/2006
	AS	
	AT	

Examiner Signature	Date Considered
/Luis Brown/	10/16/2009

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 2419
Serial No.	: 11/618,506	Examiner	: Jayanti K. Patel
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Please consider the references listed on the enclosed PTO-1449 form. Foreign patent documents and non-patent literature are enclosed; cited U.S. patents and patent application publications will be provided on request.

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office Action on the merits. Apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: February 19, 2009

/ Sushil Shrinivasan L0368 /
Sushil Shrinivasan
Reg. No. L0368

Fish & Richardson P.C.
PTO Customer No. 26192
Telephone: (858) 678-5070
Facsimile: (877) 769-7945
10903847.doc

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 2419

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	1	6,285,999	9/4/2001	Page			
	2	6,799,176	9/28/2004	Page			
	3	7,058,628	6/6/2006	Page			
	4	7,269,587	9/11/2007	Page			
	5						
	6						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
	7							
	8							
	9							
	10							
	11							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	12	Slashdot; SourceForge, Inc., http://slashdot.org/; (accessed 2/19/2009), 32 pages
	13	Huomay.com; David Harry; http://www.huomah.com/; (accessed 2/19/2009); 6 pages
	14	
	15	

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Electronic Acknowledgement Receipt

EFS ID:	4824995
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	Sushil Shrinivasan/Michelle Sympson
Filer Authorized By:	Sushil Shrinivasan
Attorney Docket Number:	16113-206001 / GP-968-00-
Receipt Date:	19-FEB-2009
Filing Date:	29-DEC-2006
Time Stamp:	18:02:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	NPL Documents	REF1httpslashdot.pdf	369829 134e76054f2760003db261a098be972007906039	no	32

Warnings:	
Information:	

2	NPL Documents	REF2httpwwwhuomah.pdf	967612 b186865b82b29e65d80982fe4b8101d38ecabfae	no	6
Warnings:					
Information:					
3	Information Disclosure Statement (IDS) Filed (SB/08)	ids.pdf	344526 03114bec82384e0aff1cd8460531d93c09d090dc	no	2
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
			Total Files Size (in bytes):	1681967	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 2419
Serial No.	: 11/618,506	Examiner	: Jayanti K. Patel
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Please consider the references listed on the enclosed PTO-1449 form. Foreign patent documents and non-patent literature are enclosed; cited U.S. patents and patent application publications will be provided on request.

Please apply any charges or credits to Deposit Account No. 06-1050.

STATEMENT REGARDING REFERENCES IN 1449 FORM

The references in the attached 1449 form are submitted for independent consideration by the USPTO in its examination of the subject patent application. In view of the volume of this material, the following is noted regarding some of the larger references:

The Zeff book (reference C11) generally discusses Zeff's understanding of the state of art of online advertising systems in 1999 (there is an earlier, first edition of this book too, printed in 1997, though for purposes of the present application it is believed that the 1999 book is sufficient. Applicants can provide the 1997 edition at the request of the examiner.) The Zeff book identifies several systems and techniques for online advertising, including self-service online systems, graphical user interfaces, targeting options, campaign strategies, and types of parameters that can be specified regarding advertising. There are screen captures of exemplary systems in use at the time throughout the Zeff book.

The AdForce User Guide (reference C1), dated 1998, is another reference that discusses on line advertising. Various graphical user interfaces and targeting options are shown and discussed in the reference, though chapter 6 appears to have the most detail regarding advertisers, agencies, and advertising campaigns; chapter 7 discusses publisher interfaces, targeting options, and delivery and placement techniques; and chapter 9 covers various reporting

CERTIFICATE OF MAILING BY EFS-WEB FILING

I hereby certify that this paper was filed with the United States Patent and Trademark Office using the EFS –WEB system on this date: February 6, 2009

options. Numerous other topics and techniques are covered in this voluminous reference, which counsel understands to have been a working advertising system.

The AdManager Pro Administrator Manual (reference C6), also dated 1998, is, in general scope, similar to the AdForce User Guide, as it discusses another self-service online advertising targeting system, though it explicitly covers some different advertising techniques and features, such as marrying online advertising and other forms of advertising (e.g. print advertising), and indicates that advertising through such a self-service online system could target multiple different media formats, from online to various manners of print formats.

Lastly, there are several references by Dedrick (references A7, C12, C13) that discuss early computer network-based advertising techniques and targeting options.

Furthermore, the subject patent application generally pertains to technology that is either in use, being considered, or includes potential candidate technology for further development. In this regard, several inter partes reexaminations are identified that the assignee of the present application, Google, has filed, which further describe and characterize some of the references above and several others on the 1449 form. These reexaminations relate to a litigation in the matter Function Media LLC v. Google Inc. and Yahoo!, Inc. (E.D. Tex., Case No. 02:07-cv-279) (pleadings may be found on PACER or at http://dockets.justia.com), are:

- Control No. 95/001,061 (references C15, A16), concerning U.S. Patent No. 6,446,045. Google has asserted that what is claimed in the '045 patent, or more particularly the breadth in which it has been asserted against Google in the litigation, is not patentable for several reasons, including in view of the references cited in the reexamination. On September 25, 2008, the USPTO granted Google's reexamination request, finding substantial new questions of patentability were raised by the references cited therein and further issued a 190-page rejection of the claims.

- Control No. 95/001,068 (references C17, A18), concerning U.S. Patent No. 6,829,587 (this patent shares a common written description with the '045 patent). Google contends that what is claimed in the '045 patent, or more particularly the breadth in which it has been asserted against Google in the litigation, is not patentable for several reasons, including in view of the references cited in the reexamination. On October 9, 2008, the USPTO granted Google's reexamination request, finding substantial new questions of patentability were raised by the references cited therein.

- Control No. 95/001,073 (references C14, A15), concerning U.S. Patent No. 7,240,025 (this patent shares a common written description with the '045 patent). Google contends that what is claimed in the '045 patent, or more particularly the breadth in which it has been asserted against Google in the litigation, is not patentable for several reasons, including in view of the references cited in the reexamination. On October 24, 2008, the USPTO granted Google's reexamination request, finding substantial new questions of patentability were raised by the

references cited therein. And, on November 21, 2008, the USPTO further issued a 504-page rejection of the claims asserted against Google in the above-referenced litigation.

- Control No. 95/001,069 (references C16, A17), concerning U.S. Patent No. 7,249,059 (while this patent shares a common written description with the '045 patent, it also adds a substantial amount of new matter concerning so-called "third party professionals"). Google contends that what is claimed in the '045 patent, or more particularly the breadth in which it has been asserted against Google in the litigation, is not patentable for several reasons, including in view of the references cited in the reexamination. On October 17, 2008, the USPTO granted Google's reexamination request, finding substantial new questions of patentability were raised by the references cited therein and further issued 262-page rejection of the claims.

If the examiner believes that additional information on any of these topics would be helpful, an interview can readily be arranged or the examiner is invited to request such additional information in any manner that is convenient.

Respectfully submitted,

Date: February 6, 2008

/John A. Dragseth, Reg. No, 42,497/
John A. Dragseth
Reg. No. 42,497

Fish & Richardson P.C.
3200 RBC Plaza
60 South Sixth Street
Minneapolis, Minnesota 55402
Telephone: (612) 335-5070
Facsimile: (877) 769-7945
60551858.doc

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 2419

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	A1	6,026,368	02/15/2000	Brown et al.			07/17/1995
	A2	6,167,382	12/26/2000	Sparks et al.			06/01/1998
	A3	6,401,075	06/04/2002	Mason et al.			02/14/2000
	A4	6,985,882	01/10/2006	Del Sesto			02/05/1999
	A5	5,948,061	09/07/1999	Merriman			10/29/1996
	A6	7,039,599	05/02/2006	Merriman			06/15/1998
	A7	5,724,521	03/03/1998	Dedrick			11/03/1994
	A8	5,740,549	04/14/1998	Reilly et al.			06/12/1995
	A9	5,848,397	12/08/1998	Marsh et al.			04/19/1996
	A10	6,078,914	06/20/2000	Redfern			12/09/1996
	A11	6,144,944	11/07/2000	Kurtzman, II et al.			04/22/1998
	A12	6,044,376	03/28/2000	Kurtzman, II			04/24/1997
	A13	6,269,361	07/31/2001	Davis et al.			05/28/1999
	A14	7,136,875	01/14/2006	Anderson et al.			02/26/2003
	A15	95/001,073		Reexamination of Stone et al.			09/30/2004
	A16	95/001,061		Reexamination of Stone et al.			09/03/2002
	A17	95/001,069		Reexamination of Dean et al.			07/11/2002
	A18	95/001,068		Reexamination of Stone et al.			12/07/2002

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
	B1	WO 97/21183	06/12/1997	WIPO				In English

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 2419

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	C1	AdForce, Inc., A Complete Guide to AdForce, Version 2.6, 1998
	C2	AdForce, Inc., S-1/A SEC Filing, May 6, 1999
	C3	AdKnowledge Campaign Manager: Reviewer's Guide, AdKnowledge, August 1998
	C4	AdKnowledge Market Match Planner: Reviewer's Guide, AdKnowledge, May 1998
	C5	Ad-Star.com website archive from www. Archive.org, Apr. 12, 1997 and Feb 1, 1997
	C6	Baseview Products, Inc., AdManagerPro Administration Manual v. 2.0, December 1998
	C7	Baseview Products, Inc., ClassManagerPro Administration Manual v. 1.0.5, February 1, 1997
	C8	Business Wire, "Global Network, Inc. Enters Into Agreement in Principle With Major Advertising Agency," Oct. 4, 1999
	C9	Information Access Technologies, Inc., Aaddzz brochure, "The Best Way To Buy And Sell Web Advertising Space," © 1997
	C10	Information Access Technologies, Inc., Aaddzz.com website archive from www. Archive.org, archived on Jan. 30, 1998
	C11	Zeff, R. et al., Advertising on the Internet, 2nd Ed., John Wiley & Sons, 1999
	C12	Dedrick, R., Interactive Electronic Advertising, IEEE, 1994
	C13	Dedrick, R., A Consumption Model for Targeted Electronic Advertising, Intel Architecture Labs, IEEE, 1995
	C14	Request for Reexamination of U.S. Patent No. 7,240,025 B2, Control No. 95/001,073
	C15	Request for Reexamination of U.S. Patent No. 6,446,045 B1, Control No. 95/001,061
	C16	Request for Reexamination of U.S. Patent No. 7,249,059 B2, Control No. 95/001,069
	C17	Request for Reexamination of U.S. Patent No. 6,829,587 B2, Control No. 95/001,068

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G06F 151/00, 153/00 — A1

(11) International Publication Number: **WO 97/21183**

(43) International Publication Date: 12 June 1997 (12.06.97)

(21) International Application Number: PCT/US96/19509

(22) International Filing Date: 6 December 1996 (06.12.96)

(30) Priority Data:
08/569,639 8 December 1995 (08.12.95) US

(71) Applicant: BELL COMMUNICATIONS RESEARCH, INC. [US/US]; 445 South Street, Morristown, NJ 07960-6438 (US).

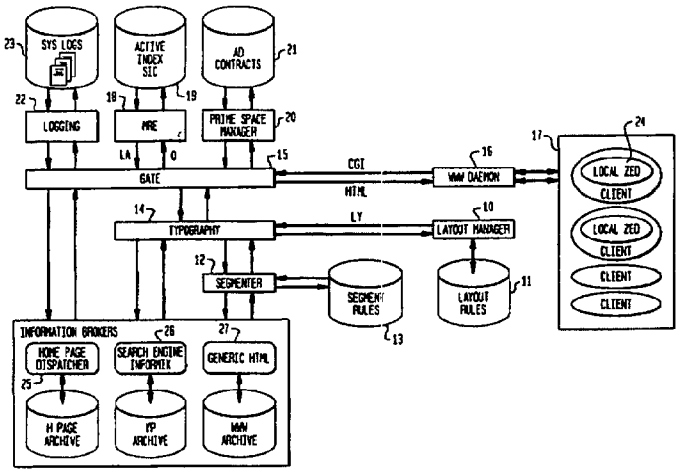
(72) Inventors: NAQVI, Shamin, Abbas; 19 Spring Valley Road, Morristown, NJ 07960 (US). IMIELINSKI, Tomasz; 153 Willowbrook Drive, North Brunswick, NJ 08902 (US).

(74) Agents: GIORDANO, Joseph et al.; International Coordinator, Rm. 1G112R, 445 South Street, Morristown, NJ 07960-6438 (US).

(81) Designated States: CA, JP, KR, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
With international search report.

(54) Title: METHOD AND SYSTEM FOR PLACING ADVERTISEMENTS IN A COMPUTER NETWORK



(57) Abstract

A method and system for placing advertisements in a computer network. A server containing a collection of advertisements is placed in electronic communication with the computer network. The advertisements on the server are not tied to any particular page containing information on the network, but rather, are retrieved in response to a query entered by the user (17) and dynamically mixed with the content of the pages returned in response to the query (16). The present invention displays the content pages with focused, targeted advertisements as a part of the page, in accordance with a particular layout. The advertisements can be made to satisfy a set of constraints (19) requested by the advertiser, as well as the constraints of the publisher of the page. The system uses contracts (21) to specify the marketing rules (18) that link ads with specific queries, to permit advertisers to target a specific audience, and to guarantee a certain amount of exposure of the advertisement in prime advertising space. Algorithms are used to check for contract consistency to ensure that all contracts that are accepted can be properly satisfied. The present invention also provides a download delay-time advertising feature.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AM	Armenia	**GB**	United Kingdom	**MW**	Malawi
AT	Austria	**GE**	Georgia	**MX**	Mexico
AU	Australia	**GN**	Guinea	**NE**	Niger
BB	Barbados	**GR**	Greece	**NL**	Netherlands
BE	Belgium	**HU**	Hungary	**NO**	Norway
BF	Burkina Faso	**IE**	Ireland	**NZ**	New Zealand
BG	Bulgaria	**IT**	Italy	**PL**	Poland
BJ	Benin	**JP**	Japan	**PT**	Portugal
BR	Brazil	**KE**	Kenya	**RO**	Romania
BY	Belarus	**KG**	Kyrgystan	**RU**	Russian Federation
CA	Canada	**KP**	Democratic People's Republic of Korea	**SD**	Sudan
CF	Central African Republic			**SE**	Sweden
CG	Congo	**KR**	Republic of Korea	**SG**	Singapore
CH	Switzerland	**KZ**	Kazakhstan	**SI**	Slovenia
CI	Côte d'Ivoire	**LI**	Liechtenstein	**SK**	Slovakia
CM	Cameroon	**LK**	Sri Lanka	**SN**	Senegal
CN	China	**LR**	Liberia	**SZ**	Swaziland
CS	Czechoslovakia	**LT**	Lithuania	**TD**	Chad
CZ	Czech Republic	**LU**	Luxembourg	**TG**	Togo
DE	Germany	**LV**	Latvia	**TJ**	Tajikistan
DK	Denmark	**MC**	Monaco	**TT**	Trinidad and Tobago
EE	Estonia	**MD**	Republic of Moldova	**UA**	Ukraine
ES	Spain	**MG**	Madagascar	**UG**	Uganda
FI	Finland	**ML**	Mali	**US**	United States of America
FR	France	**MN**	Mongolia	**UZ**	Uzbekistan
GA	Gabon	**MR**	Mauritania	**VN**	Viet Nam

METHOD AND SYSTEM FOR PLACING ADVERTISEMENTS IN A COMPUTER NETWORK

NOTICE OF COPYRIGHTED MATERIAL IN DISCLOSURE

A portion of the disclosure of this patent document contains material which is subject to copyright protection. The copyright owner has no objection to the facsimile reproduction by anyone of the patent document or the patent disclosure, as it appears in the Patent and Trademark Office patent file or records, but otherwise reserves all copyright rights whatsoever.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates generally to advertising and, in particular, to a method and system for placing advertisements in a computer network, such as a wide area network or a metropolitan area network.

Description of the Prior Art

A number of information services are currently offered on wide area public networks, such as the Internet. The basic model of these services is that a query is processed and a set of answers is returned. For example, a number of yellow page searchable directories have been developed in which users can query categories of products or services (e.g., new car dealers) and the system returns a set of vendors satisfying the query.

One problem with these services is determining who should subsidize the end user's cost of using the services. One way of providing such a subsidy is through the use of

advertisements. Public networks, such as the Internet, are starting to see random use of advertisements. For example, some search engines used in public networks are sponsored by a single vendor or company. The sponsoring vendor or company will often have an advertisement displayed on a user's computer screen during use of the search engine. Other search engines display randomly selected advertisements from a fixed set of advertisements.

As one example, a number of services on the World Wide Web ("WWW") are currently using ad hoc means of advertising. That is, when a user uses certain search engines for conducting a search, the user will be shown advertisements while doing the searching. These advertisements are sometimes referred to as "banner" advertisements because they simulate a banner that the user sees as the user is traveling down a "road" on the computer network. These advertisements are typically tied to a particular search page that the user encounters during the search.

The current state of the art is such that when the user uses a search engine, a randomly selected advertisement is shown as if it is part of the search page. For example, the user may enter a search request to see a home page on cooking and, as a part of that page, the existing systems might display an advertisement about cars. This is a problem, of course, because there is no connection made between the content of the advertisements or the message of the advertisements and what the user is actually searching. Another problem with the current state of the art is that there is no guarantee associated with the advertisements that they will be shown a certain number of times or in a certain place on the page with

respect to the other pieces of data on that page. For these reasons, the existing systems for placing advertisements on computer networks, such as the Internet, fail to take full advantage of the interactive/demand driven environment of the online medium.

SUMMARY OF THE INVENTION

It is thus an object of the present invention to provide an improved method and system for advertising on a computer network, particularly a wide area or metropolitan area network, which overcomes the above described problems of existing advertising systems.

It is a further object of the present invention to provide an effective advertising medium that anyone with a personal computer can use to advertise on computer networks.

It is a further object of the present invention to provide a method and system for advertising in which advertisements are more informative and provide a direct link to additional information about the advertised product or service or about the advertiser.

It is a further object of the present invention to provide a method and system for advertising on a computer network in which advertisements are more focused and targeted, for example, by user queries and user profiles, including the past history of the user's interactions with the system.

It is a further object of the present invention to provide a method and system for advertising in which new online publishers can be created with little effort.

It is a further object of the present invention to provide a method and system for advertising in which

advertisers can be guaranteed that their advertisements will be displayed a certain number of times or in a particular manner or under particular circumstances.

Additional objects, advantages and novel features of the invention will be set forth in the description which follows, and will become apparent to those skilled in the art upon reading this description or practicing the invention. The objects and advantages of the invention may be realized and attained by the appended claims.

The present invention provides a new process and system for online advertising. This new process will be referred to throughout this application as query-based advertising ("QBA"). In the QBA process, advertisements are primarily triggered by user queries. User queries, as used herein, refer to requests from an information consumer for one or more pages of information from a computer network. As a result of a query, a user is exposed to advertisements with the present invention, i.e., the query triggers advertisements.

In accordance with the present invention, a server containing a collection of advertisements is placed in electronic communication with a computer network. The computer network is preferably a wide area network, such as the Internet, or a metropolitan area network. As used in this application, the phrase "computer network" refers to any public or private data communications network.

The advertisements on the server are not tied to any particular page containing information on the computer network. Rather, the advertisements are contained on the server, distinct from the pages that may or may not later carry the advertisements. The pages by themselves have no

advertisements. Thus, the pages are analogous to a newspaper or magazine devoid of any advertisements.

When the user requests a certain page or a certain topic of information, the relevant pages are retrieved from the computer network and shown to the user. The present invention, upon receiving the user's request, retrieves advertisements that are related to the user's action, dynamically mixes the advertisements with the content of the pages according to a particular layout, and displays the pages with focused, targeted advertisements as a part of the page. The advertisements can be made to satisfy a set of constraints requested by the advertiser, as well as the constraints of the publisher of the page, as further discussed below.

The advertisement triggering mechanism of the present invention is not random or coincidental, but rather, is prespecified in advance. This specification will be referred to in this application as a contract. A contract specifies the marketing rules that link advertisements with specific queries. For example, a diet soft drink advertisement may be shown when a user asks for a page about exercising equipment. These rules are specified by advertisers implementing the concept of "focus" or "relevance" of advertisements and help the advertisers to target a specific audience. Owners of pages specify the focus content of their pages through special tags within a page. These tags are not displayed to the information consumer; the tags are used to decide what advertisement can be shown when the page is requested by a consumer.

The notion of a contract, however, goes well beyond just marketing rules. First of all, the advertising space on the online medium, although technically unlimited, is

severely restricted by the user's attention span. Placing advertisements on the first page which constitutes the answer to a query gives the advertisements much higher probability to be seen than on later pages of the answer. This is analogous to a certain extent, to newspaper advertising where advertising on the first page of the newspaper is more expensive than on the last page of the newspaper. Thus, the present invention introduces the concept of prime space as a part of the QBA.

Prime space will be used in this application to refer to limited advertising space on the first page of the answer to a query. Prime space is, in principle, as attractive as prime time television. Prime space, like prime time, is limited so it may be impossible to show all the relevant advertisements in prime space.

As a solution to the prime space limitations, the present invention provides guarantees to advertisers through the use of contracts. The contracts provide tools to specify such guarantees and to enforce them. Specifically, the present invention provides the following types of guarantees (or "contracts") to advertisers:

1. Ratio-based: The ad will be shown in prime space no less than a certain percentage of the times a relevant query is made by a searcher.
2. Exclusive or Competitive: Ad A is never to be shown in prime space when ad B is shown.
3. Dependent: Ad A is to be shown with a predetermined probability when ad B is shown in prime space.
4. Story: An ad consisting of several sub-ads will be shown in prime space in sequence to a consumer.

5. Frequency-based: The ad will be shown in prime space a certain number of times in a given time period (e.g., 100 times per month).

Additionally, the contracts may also specify the type of layout used to mix ads together with the data. This may include the layout types, and so forth.

The present invention also provides means for determining whether there are any contracts that cannot be satisfied. For example, if the prime space is sufficient to hold only two ads, it is impossible to guarantee 100% ratio for more than two ads. Similarly, if ad A is never to be shown when ad B is shown and if both ad A and ad B are equally relevant according to focus matching, then it is impossible to guarantee ratios above 50% for both ads A and B.

The present invention uses algorithms to check for contract consistency to ensure that all contracts that are accepted can be properly satisfied. An advertiser can ask for a certain contract (e.g., 5% relative coverage in prime space) and the present invention will determine whether that contract can be satisfied. If not, the system suggests what coverage it can provide. After the contract is determined to be consistent, the present invention will enforce the contract by displaying advertisements in accordance with the contract.

A consequence of QBA is that ads cannot be placed on pages a priori because it is the query that determines what ads are to be placed on a page. This is referred to as dynamic advertising. The query asks for a page that has a focus. Ads that are resident in the system are checked to determine which ads can potentially be placed on the page in question. This decision is based on matching the focus

of a page with the focus of the ad. When not all matching ads can be placed on a page because of space limitations, the contract enforcement feature of the present invention ensures that the ads that are placed on the page are consistent with the contracts signed by the system with the advertiser.

Another consequence of QBA is that it must be determined where to place an advertisement on a page. Currently, pages on the WWW have a fixed a priori agreed upon area on a page for advertising. The present invention, however, dynamically determines where an advertisement should be placed. The present invention permits owners of pages to be free to organize the layouts of their pages. The page owner makes the final determination of where an advertisement should or should not be placed. Once the page is organized, the page owner can specify where an advertisement can be placed by placing a special tag ("ad space") on their page. Like the focus tag, this ad space tag is not visible to the consumer. It is a directive to the advertising system that the tag denotes space available for advertising, i.e., the tag can be thought of as a billboard stating "this space available for advertising."

The present invention also provides a download delay-time advertising feature. Most consumers on computer networks, such as the Internet, experience a delay from the moment they ask for a page to the time the page is downloaded to their browser. This delay may be caused, for example, by traffic congestion on the WWW. This delay time will be referred to as download delay-time.

The present invention uses the download delay-time to display ads to the consumer. This will be referred to as

down-load delay time advertising. The time that the consumer would have waited for a page to be downloaded is utilized to expose the consumer to ads. Once a page (or a subpart of the page) has been downloaded to the consumer's browser and is available to be displayed, the ads are replaced by the page content. The consumer does not experience a delay due to advertising by the present invention. Only the preexisting delay time is utilized by the advertising system.

In summary, the present invention provides a system and method for advertising on a computer network, comprising a server containing a plurality of advertisements, means for electronically connecting the server to a computer network, and means for selecting and retrieving an advertisement from the server in response to a query entered on the network. The selecting means comprises means for ensuring that a selected advertisement is relevant to the query. A mixer means is provided for combining a retrieved advertisement with a content page returned by the computer network in response to the query.

The mixer means comprises a layout manager means for computing an optimum layout of a combined page containing the retrieved advertisement and the content page. The mixer means also comprises a typography manager means for detecting special tags and HTML rules in the content page and for determining which part of the content page the selected advertisement can be displayed on. The content page is provided by a home page dispatcher, a search engine, or a generic HTML content provider in response to the query.

A transaction means is provided for permitting a user to make a transaction with the advertiser by interacting

with the displayed advertisement. A prime space manager means is provided for controlling when the advertisements contained on the server are selected by the selecting means, the control being based upon respective advertiser contracts associated with each of the advertisements.

An ad placement means is provided for placing new advertisements on the server, the ad placement means having means for entering an advertiser contract for each advertisement placed on the server and means for checking a new advertiser contract for consistency with existing advertiser contracts. A local client means is provided for displaying a retrieved advertisement only during a download delay time period in which a user is waiting for a content page to be downloaded in response to the query. A means for refreshing a displayed advertisement after a predetermined time period of inactivity by the user, and a means for replacing a displayed advertisement with a downloaded content page as soon as the content page is received by the client are also provided. The system includes means for calculating a search time estimation for the query, and means for combining a page containing the search time estimation and a retrieved advertisement. The system also includes means for determining a geographic location of a user, and means for selecting an advertisement based upon the user's geographic location.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will become more clearly appreciated as the disclosure of the present invention is made with reference to the accompanying drawings, wherein:

Fig. 1 is a schematic diagram providing a general overview of the main components of the present invention.

Fig. 2 is a flow chart showing a process of placing advertisements on content pages provided by yellow page publishers of a computer network.

Figs. 3A-3D are screen prints showing page views displayed during various steps in the process of Fig. 2.

Fig. 4 is a flow chart showing the process performed by the layout manager of the present invention.

Fig. 5 is a flow chart showing the process performed by the parser of the present invention.

Fig. 6 is a flow chart showing the process performed by the mixer and ad selector of the present invention.

Fig. 7 is a flow chart showing a process of placing targeted advertisements in online pages provided by a home page publisher of a computer network.

Figs. 8A-8C are screen prints showing page views displayed during various steps in the process shown in Fig. 7.

Figs. 9A and 9B are flow charts showing a billing system process according to the present invention.

Fig. 10 is a flow chart showing the steps of an ad placement process according to the present invention.

Fig. 11 is a flow chart showing the steps of a page placement process according to the present invention.

Fig. 12 is a schematic showing the architecture of a transaction system according to the present invention.

Figs. 13A and 13B are screen prints showing page views displayed during various steps in a transaction process of the present invention.

Fig. 14 is a flow chart showing the steps of the transaction process according to the present invention.

Fig. 15 is a diagram chart showing the process performed by the prime space manager component of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Reference will now be made in detail to a preferred embodiment of the invention, an example of which is illustrated in the accompanying drawings.

Fig. 1 provides a general overview or space architecture of the main components of the present invention. The layout manager 10 is primarily responsible for the computation of the layout of a page to be displayed to a client. Other modules of the system compute the necessary data that is to be displayed, as described below. The layout manager 10 then accepts this data from the other modules and computes the optimum layout for the display.

The layout manager 10 uses two sub-components to determine the optimum layout; a rule base and a layout data base within the layout manager (collectively shown as the layout rules component 11 in Fig. 1). The layout data base contains a collection of templates that have been predefined and stored in the layout data base. The rule base contains a collection of rules defined by the user or by the placer of the layout manager to ascertain which layout templates are best under what set of conditions. When the layout manager 10 receives the data to display, it invokes various rules in the layout rules to figure out which rule to trigger and, hence, decides on one layout as being the best under the present set of conditions.

The variables used in the rules are the amount of data that is to be displayed, the kind of data that is to be

displayed, the amount of text, the amount of advertising material, and the size of the various maps and multi-media icons that are to be displayed. Based on these variables, the rules are checked and one or more rules are picked as delineating the best layout that can be found. The layout manager 10 then arbitrarily picks one of the rules that it thinks are the best and picks that layout, inserts the data given to it in the layout template, and gives the final product to the client to be displayed.

The variables that are expressed in the rules are based on a number of parameters including the size of the text, the amount of text, the size of the maps, the size of the images, and the size of the advertisement. In principle, there is no limit as to the number of parameters that one can achieve using the layout manager 10. The rules are preferably expressed in a programming language general enough to take any other parameters that one may desire to furnish.

The layout rules are constructed based on various parameters. The layout rules are then checked and used to pinpoint the exact template to be used for a certain kind of data situation. The template is then filled in by the layout manager 10 to provide a display to the client.

Next, the segmenter 12 will be described. The segmenter 12 is responsible for analyzing an HTML page and for extracting the relevant data from the HTML page. The purpose of the segmenter 12 is that, if the system is given a page constructed by another component or by some other content provider, the segmenter 12 will try to find reasonable places within that page where a certain advertisement could be inserted dynamically.

The segmenter 12 uses various rules for finding advertising space within a page, and for preventing the essential layout of the page from being disturbed. In particular, the segmenter 12 looks for certain special tags inserted by the designer of the HTML page and replaces those special tags with advertisements or other types of information that it has been given. The segmenter 12 then looks at the page, decides where to insert ads, and provides that information to the layout manager 10.

In most instances, the typography manager 14 is the main input device to the layout manager 10. One exception to this will be described later. The typography manager 14's role is to "render" the page. By rendering the page it is meant that the typography manager 14 takes various kinds of input that has to go on a page and decides which part of the information has to go on the page and which part of the information could in fact be deleted. Thus, the typography manager 14 is similar in function to a typographer in a traditional publishing situation.

The typography manager 14 has the final say in what data gets sent to the layout manager 10. The typography manager 14 also detects special tags and special HTML rules that tell it where the markups of the HTML page are supposed to happen. Ultimately, the layout manager 10 and the typography manager 14 collaborate on coming up with a page. This page in its final form is then passed to the gate 15.

The gate 15 transfers a page from the system of the present invention to the client. The gate 15, therefore, provides the gate between the client and the server. The gate 15 gives the page that it wants to display to the WWW

Daemon 16 and the Daemon interacts in turn with the client 17 on the user's side.

The above description has explained how the layout manager 10, the segmenter 12, the typography manager 14, and the gate 15 operate. Before describing in detail the remaining components of the system, an example flow of a request through the system will be explained.

Initially, a user requests a particular piece of information through one of the clients 17. The user's request is given to the WWW Daemon 16, which passes the information to the gate 15. The gate 15 at this point decides what piece of information is being requested by the user and finds other relevant pieces of information that can be commingled with what the user has asked. The user, for example, might ask the system to see certain car dealers, to find a phone number of a car dealer, or to get a page of a particular magazine.

The gate 15 at this point gives the request to the matching rule engine 18 ("MRE"). The purpose of the MRE 18 is to look at the content of the user's query and to find a category within its active index SIC 19 that matches the same type. If the user has asked for car dealers, the MRE 18 invokes its rules to determine that car dealers are part of a class of things relating to transportation. Based on the classification determined by the MRE 18, the system now knows that the user is asking about cars or about transportation or about whatever else that the user might be interested in.

The MRE 18 at this point then returns to the gate 15 the category index of the user's query. If the user had asked about cars or about family sedans or about sports cars, at this point the MRE 18 would have figured out that

the user's interest falls into a certain category. Based on the user's interest category, the system then retrieves the advertisements that are relevant to that category. Thus, the purpose of the MRE 18 is to figure out what the user requested, to place the user's request in a category of a classification system (i.e., the active index SIC 19) and, based on that classification, to retrieve relevant advertisements. At this point there may be several hundred related advertisements retrieved from the category containing the user's request. This creates a problem in that there will be many more advertisements related to the user's request than can possibly be shown to the user on the first page of information. At this point, the prime space manager 20 comes into play. The purpose of the prime space manager 20 is to prioritize the advertisements that are to be shown to the user.

For example, if there is only room for five advertisements and the MRE 18 returns a list of 500 possible advertisements to show, the system must determine which five of the ads to show. The operation of the prime space manager 20 is based on a set of contracts that were accepted when the advertisers placed their advertisements with the system. The system supports the following five basic types of contracts:

1. Ratio-based: The ad will be shown in prime space no less than a certain percentage of the times a relevant query is made by a searcher.
2. Dependent: Ad A is to be shown with a predetermined probability when ad B is shown in prime space.
3. Exclusive or Competitive: Ad A is never to be shown in prime space when ad B is shown.

4. Story: An ad consisting of several sub-ads will be shown in prime space in a particular sequence to a consumer.

5. Frequency-based: The ad will be shown in prime space a certain number of times in a given time period (e.g., 100 times per month).

Additionally, the contracts may also specify the type of the layout used to mix ads together with the data. This includes the layout types, and so forth. The various contracts used by the system will now be discussed in more detail.

The ratio-based contracts are used where an advertiser wants the advertisement to be displayed a certain percentage of the time in prime space. In other words, when a query is received that is related to the business of the advertiser, the advertiser is guaranteed that its advertisement will be on the first screen of information displayed to the user a certain percentage of the time (e.g., 15% of the time). This percentage is called the coverage guarantee. The ratio-based contract provides a coverage guarantee to the advertiser that its advertisement will be displayed X% of the time for every relevant query. This guarantee is probablistic in nature, so that over the long run of the system, the probability will converge to the percentage that the advertiser has requested.

The second kind of contract that the system supports is referred to as a dependent contract. The dependent contract guarantees that one advertiser's ad can be shown in conjunction with another advertiser's ad on the same screen. For example, a travel destination advertisement (e.g., "Come to the Bahamas") can be shown on the first screen of information together with a credit card

advertisement (e.g., "Pay for your ticket through VISA"). With this type of contract, the system can support contracts that satisfy the needs of two or more advertisers at the same time.

The third type of contact supported by the system is called an exclusive or competitive contract. This type of contract can be used to guarantee that an advertiser's ad is not shown at the same time or on the same page as a competitor's advertisement. For example, a beverage manufacturer (e.g., Coca-Cola) can prevent a competing beverage manufacturer's (e.g., Pepsi's) ads to be shown at the same time as its own ads and vice versa.

The fourth kind of contract is called a story contract. This type of contract is used to guarantee an advertising package in which a sequence of two or more ads are shown together. The ads can be displayed so that the user sees a first part of the advertisement, then sees a second part of the ad, and then sees a third part of the ad and so on. For example, an advertisement for coffee might consist of a picture on a first page showing somebody drinking a cup of coffee; a picture on a second page showing them putting the coffee cup away; and a picture on a third page identifying the name of the advertiser's product (e.g., "Maxwell House makes a good cup of coffee").

Thus, the story contract guarantees that an advertiser's ads will be shown in the form of a story. The story contract is desirable where a group of ads must be shown together in a particular order to make sense.

The fifth kind of contract is the frequency-based contract. This contract is used where the advertiser wants to guarantee that its advertisement will be shown a certain

number of times over a given time period (e.g., 100 times per week).

Several different combinations of the above-described types of contracts can also be used. For example, an advertiser can enter a story contract which also guarantees that its advertisement will not be shown at the same time as its competitors ads are shown, that its advertisement will be shown at the same time that a related advertisement is shown, and that its advertisement will be shown in prime space a certain percentage of the time.

The prime space manager 20 has the responsibility of determining all the possible advertisements that can be shown in conjunction with the information requested by the user. The prime space manager 20 then decides which ads to show based on the particular contracts that have been signed. If a contract has already been entered with an advertiser's competitor, the prime space manager 20 will make sure that it can in fact satisfy the new contract with the advertiser. Thus, the prime space manager 20 dynamically makes a decision of which advertisements to show given the amount and the number of advertisements that it can possibly show. The end result of the prime space manager 20's computation is that the system knows exactly which advertisements can and will be shown to the user.

These advertisements are then given to the gate 15. The gate 15 at this point gives the ads to the typography manager 14, and the typography manager 14 determines how best to display the information. The page information then comes back to the gate 15 and is forwarded to the client 17. In the above description of the present invention, the advertisement contracts, the active index SIC 19, the layout rules 11, the segmenter 12, the segment

rules 13, the layout manager 10, and the typography manager 14 have been explained.

During the computation of the advertisements and all the other computations that the system of the present invention performs, a logging module 22 of the system performs extensive logging of what the user has asked, what advertisements were shown, how long the advertisements were shown, and which advertisements were shown to which user. The logging module 22 then stores these logs in a SYS logs database 23. Various scanned reports can be produced and defined using the information in the SYS logs database 23.

A local client 24 of the present invention provides a download delay-time advertising feature. Download delay time refers to the delay experienced by most users of computer networks from the moment a page is requested to the time the page is downloaded to their browser. The download delay-time advertising feature utilizes the time that the consumer would have waited for a page to be downloaded to expose the consumer to ads. Once a page (or a subpart of the page) has been downloaded to the consumer's browser and is available to be displayed, the ads are replaced by the page content.

In most cases, when a user asks for a page there is a considerable download delay time. The user must wait for the page after the request for a few seconds or, in certain cases, a few minutes before the page is finally downloaded by the network. The present invention uses this delay time to show advertisements, while taking care that the delay time of the user is not increased by showing the ad. Thus, the only time an advertisement is displayed is the time that the user would have had to wait anyway. While the

user waits for the page, the user can view the advertisements on the local client 24.

The information brokers or content providers shown in Fig. 1 include a home page dispatcher 25, a search engine INFORMIX 26, and a generic HTML 27. For purposes of the present invention, it is assumed that there are three broad classes of publishers that can utilize the advertising features of the present invention. A "publisher" can include virtually anyone that provides content to the network. For example, anyone who is a home page owner is a publisher in the category shown as Generic HTML 27. A second kind of publisher is the search engine publisher 26, which includes phone company yellow page providers, such as NYNEX. And a third kind of publisher is the so-called home page dispatchers, which include traditional magazines and newspapers, such as Business Week.

The present invention distinguishes between these three types of publishers. If the publisher is a home page dispatcher 25, the publisher provides its own content and intersperses the content with certain special tags indicating where ads can and cannot be placed and indicating where the focus of the content is about certain topics. These special tags are then used to trigger certain actions in the system of the present invention relating to the type of content contained on the page and the kinds of advertisements that can be placed on the page.

The second kind of publisher that the present invention is used with is the search engine publisher 26. Currently, there are many companies on the WWW that permit users to query their database and then return a set of answers from the database to the user. For example, a telephone company may have a site that allows a user to

obtain a set of phone numbers and business names for a particular type of business (i.e., a yellow page directory).

For purposes of the present invention, the search engine publisher 26 is distinguished from the home page dispatcher 25 in the sense that the content returned by the search engine publisher 26 does not contain any special tags or meta comments put in by the publisher to define the layout of the content and the ads. In this case, the layout manager 10 of the present invention computes the optimum layout based upon the rules and layout templates, as described above. The final result, therefore, is that output is taken from the search engine publisher 26, adorned with certain relevant advertisements, and then shown to the users.

The third kind of publisher, the generic HTML publisher 27, includes those publishers that the present invention assumes are people who have designed their own home page, perhaps taking great care to provide a desired appearance. These publishers will probably not have inserted any special tags or meta comments into their home page to guide the advertising system of the present invention. In this case, the system of the present invention can either try to find a space in the home page that it thinks is reasonable without violating the desired appearance of the page, or it can insert the advertisement before or after the page. That is, if the segmenter 12 cannot find a suitable place within the page that the generic HTML publisher 27 has already designed, it will place the advertisement on the proceeding or the following page. This is more likely to occur if the owner of the page has not provided any special tags or meta comments, or

if copyright concerns prevent the insertion of a certain advertisement within the page.

In summary, the present invention partitions the publishers (i.e, the information brokers) into three categories: the home page dispatchers 25, the search engine publishers 26, and the generic HTML home page providers 27. The distinction between the three is that the home page dispatchers 25 intersperse their content with special tags or meta comments which helps the present invention in determining where to place the advertisements and what kind of advertisements to place, the search engine kind of publishers 26 return unadorned results of queries and the present invention is free to reformat and relay out the set of answers, and the generic HTML home page publishers 27 are publishers that have meticulously crafted their home pages, usually without special tags or meta comments, so that no guidance is provided to determine an appropriate space for placing an ad.

The segmenter 12, which is the module of the present invention whose responsibility is to find a place somewhere on a generic HTML page to place an advertisement, may not succeed in finding a space on a generic HTML home page. In this case, it will either place the advertisement on a proceeding or a following page. Most, if not all, of the publishers on the WWW will fall into one or more of these three categories.

In Fig. 1, the acronym LA refers to List of Ads, Q refers to the user's query, CGI is a standard WWW abbreviation for "common gateway interface," HTML is a standard abbreviation for hypertext markup language, and Ly is the list from the layout manager 10 to the typography

manager 14 that indicates a list of pages that have to be displayed.

Referring to Fig. 2, a flow chart is provided that describes the main flow of the process of placing ads on content pages provided by yellow page publishers, in accordance with the present invention. The process begins at START 30 when the client provides a query to the system. For purposes of illustration, the query depicted is a yellow page query in which a user requests some item of interest, and the publisher is a yellow page publisher (please refer to the previous discussion for a description of the three kinds of publishers).

For example, the user may submit a query form asking for a listing of all car dealers in Morristown, New Jersey. This query form is evaluated by the box 31 entitled YP QUERY FORM. The purpose of this evaluation is to determine the type of the query (e.g., is the user interested in cars, a particular geographic region, etc.).

In using a yellow page publisher there are two broad distinctions for a query. A client may be asking for a certain category of listings, or the client may be asking for a particular vendor. For example, the user could ask for car dealers in Morristown, NJ (i.e., a category of listings), or the user could ask for Morristown BMW located on South Street in Morristown, NJ (i.e., a particular vendor). The system determines which of the two types of queries or searches the user has made, as illustrated by box 32 in Fig. 2. If the query is for a certain category, the process will go to the left hand side of the flow chart of Fig. 2, and if the query is for a certain vendor, the process will go to the right hand side of the flow chart of

Fig. 2. The left hand side of the flow chart will be explained first.

After determining the type of query, the category search engine 33 next determines which category best fits the user's request. The user may have asked for "car," but the category in the yellow page provider's index may in fact say "automobile." Or, the user may have asked for "spectacles," and the category in the yellow page provider may be called "optician." The matching of these variations of terms is performed by the category search engine 33.

Once it has been determined which category the user's request falls into, the advertisement selection process comes into play with the ad selector 34. The ad selector 34 determines what advertisements are best suited to be mixed in with what the user has requested. The content from the category search engine 33 and the ad(s) from the ad selector 34 are then given to a mixer 35. The mixer 35 functions to mix the content coming from the search engine with the ad(s) selected by the ad selector 34. The result is the creation of a page that is of interest to the user.

If the user's category was about cars, at this point the ad selector 34 would have presumably found advertisements related to cars and displayed these ads at step 36 to the user. The user at this point can select one or more of the listed or advertised car dealers. This again results in more advertisements being selected by the ad selector 34, as well as the accessing of a vendor search engine 37 provided by the yellow page publisher, and a new page being shown to the user.

Referring to the right hand side of Fig. 2, if the user requests a particular vendor, the system will first do a search time estimation 38 to figure how long it will take

to find the piece of information requested by the user. At the same time, the ad selector 34 will perform a search for the advertisements that are to be shown to the user. As soon as the relevant ads are found by the ad selector 34, the ads are mixed with the search time estimation information and both are displayed to the user. At this point 40 in the process, the user is asked for a confirmation of whether to continue with the requested search given the estimated search time. Upon receiving confirmation from the user, the ad selector 34 will again be accessed, as will be the vendor search engine 41. The first set of ads returned by the ad selector will continue to be displayed to the user for viewing until the search results from the vendor search engine 41 are available.

When the vender search engine 41 completes the search, it returns the search results to the mixer 35. Similarly, the ad selector 34 returns a second set of ads to the mixer 35. The mixer 35 mixes the ads with the content provided by the vendor search engine 41 and forwards the combined page to the page display 42.

The result of this process is that a yellow page inquiry posed by the user is categorized either as a category search or a vendor search. In both cases, the type of the query is matched with a certain category of ads, the search results and the ads are mixed, and a page is constructed and shown to the user. Upon further input from the user, the system selects and mixes a second set of ads with the content page of the publisher, and another page containing ads is constructed and shown to the user.

The "focus" arrows 43 shown in Fig. 2 indicate that a certain focus is associated with each category. The query may have been directed to a category of listings or a

particular vendor. In both cases there is a "focus" associated with the content of the query (e.g., automobiles, physicians, lawyers, etc.). In addition, there may be a focus associated with the geographic location of the user to permit advertisers to target users in particular geographic regions. The focus process plays a major part in the present invention. No advertisements are shown unless it can be determined that the advertisements are in some way focused or related to the content of what the user requested.

Referring to Figs. 3A-3D, the page views displayed to the user during the process of Fig. 2 will be described. Figs. 3A-3D show four form views labeled successively Form# YP_1, Form# YP_2, Form# YP_3, and Form# YP_4. These form views correspond to the references made to the same form numbers in the flow chart of Fig. 2.

The user is first presented with a user's screen that looks like Form# YP_1 and the user is prompted to type in a query. For example, the user can type in a query for car dealers in Morristown, NJ. This query will result in a search type as previously described, either as a category or a vendor. In fact, the user can pick one or the other by selecting the appropriate box on Form# YP_1. At this point, the system knows whether the search type is category or vendor and, because the user has typed in car dealers, the system knows the focus.

At this point, if the search type is vendor, the system will show a screen that looks like Form# YP_2. This screen informs the user that it will take approximately 30 seconds for the system to respond to the user and asks the user whether this is okay. If the user wants to proceed,

the user clicks on the box labeled "Search it now" and the system begins the search.

If the search type is category, the system displays a screen that looks like Form# YP_3. This Form# YP_3 shows a list of categories under the heading of car dealers. The user is then asked to make a selection of one of these categories. Simultaneously, the system goes into the ad selection mode and selects and places ads on the Form# YP_3 that is being displayed to the user. In this case the advertisement shown on Form# YP_3 is the Bellcore logo.

The user then selects one of the subcategories being displayed and clicks on the box "Search it now."

The system next displays a screen that looks like Form# YP_4. The ads placed on this Form# YP_4 have been selected by the ad selector 34, and the listings on the form have been searched and retrieved by the vendor DB entries search engine 41.

In summary, the general process for a yellow page search request in the system is that first the user states a query, the result of the query is a set of possible categories that the user wants to see. The system then makes a choice of one category from this list of categories and shows the relevant providers in that category to the user. When the user states a query and the system displays to the user a list of categories, certain advertisements are shown to the user as well. This is the top half of the flow chart of Fig. 2 where the category search engine 33 or search time estimator 38 and the ad selector 34 provide the two components to the mixer 35 and the mixer 35 comes up with a page containing both an advertisement and a list of categories or the search time estimation of how long it will take.

If a user requested a category, the user will be shown advertisements and a list of categories that relate to the user's query. If the user requested a particular vendor, the user will be shown advertisements related to the focus of the user's query and an estimation of how long it will take for the system to process the query. In both cases, the user has been shown advertisements and some part of the information and then asked to make a further choice. Once the user makes the further choice, the system again tries to find what the user requested plus what advertisements to show as a part of this process. Thus, whenever the user asks the system to do something, the system will do what the user asks, but at the same time will find advertisements that it can mix in with what the user requested.

Although the flow chart of Fig. 2 illustrates the present invention only in conjunction with a yellow page publisher, similar processes are used with other types of publishers. The process of the present invention for placing ads with home page providers is described below in conjunction with the flow chart of Fig. 7.

Referring now to Fig. 4, the layout manager 10 of the present invention will be described in further detail. At step 50, the layout manager 10 is given the collection of data to be displayed. The layout manager 10 has a collection of rules that it evaluates so that it can return the best layout for each page. When the layout manager 10 receives data it reads the parameters of the data for each rule (step 51) and expands on the expand meta template 53.

There are two main components of the layout manager 10, as previously discussed -- a layout data base and a layout rule base. The layout rules describe certain

parameters that can be used to determine the best layout to use under a given set of situations. The layout data base is a collection of templates that can be thought of as forms that need to be filled out with certain kinds of data.

When the layout manager 10 is given a piece of data, it uses the rules to determine which templates to use. Specifically, the layout manager 10 evaluates each and every rule in its rule base to figure out which rule is the best for a given piece of data. The rules are evaluated at step 54 by calculating a meta and a target function cost. The meta template is the template that describes what the layout is about. For example, the template may provide that there are only five places for advertisements in a particular layout.

There is a cost associated with each kind of layout. The basic problem that the layout manager 10 is faced with is that are a certain number of advertisements to show and there is a certain amount of user-requested data that has to be shown. This creates a spectrum of objective versus subjective content that has to be evaluated. That is, it must be determined how much subjective content to provide and how much objective content to provide. If the publisher is a yellow page publisher, the layout manager 10 must decide how many telephone listings to display and how much of the page to fill with advertisements. The system could, for example, display only three telephone listings and fill the rest of the page with advertisements, or the system could display twenty telephone listings and only one ad. Each template in the layout database has a set of meta attributes associated therewith indicating the number of advertisements that can be displayed, the amount of content

to be displayed, and the cost function associated with the template.

In summary, the layout manager 10 picks up a rule in the data base, calculates the cost function for each template and stores the template with the minimum cost in a safe place (step 55). At the end of this computation the layout manager 10 succeeds in finding the minimum cost layout within its data base that it can use for the current data account. It then picks the minimum cost layout as the best layout and returns the best layout (step 52) to the typography manager 14 for display to the user.

Referring to Fig. 5, a flow chart of a parser 60 of the present invention will be described. The purpose of the parser 60 is to interpret the meta comments and meta tags inserted on the publishers' pages. As described above, these are generally pages constructed by magazine or newspaper publishers that have provided special tags in their content for the present system to interpret in a special way. These pages are referred to in Fig. 5 as enhanced HTML or E_HTML 61.

The parser 60 first searches for special tags (step 62) in the input E_HTML. There are two kinds of special tags: tags for focus and tags for advertisement space. Tags for focus are tags that tell the system what the focus of the page is or what the context or content of the page is about. For example, a focus tag might indicate that the page is about sports cars, cooking, or travel destinations in the Caribbean. The advertisement space tags, on the other hand, indicate a space on the page that is so many pixels by so many pixels and that can be used for advertisements. The parser 60 searches for these special tags and identifies the tag name as either a focus or an

advertisement tag (step 63). If the parser 60 cannot find any special tags, it simply returns from where it was called.

If the parser 60 finds a focus kind of tag, it extracts and stores the focus words (step 64). If the parser 60 finds an advertisement kind of tag, it extracts and stores the size value (step 65). In both cases, the process returns the focus and ads information to another module in the system (step 67) after reaching the end of the page (EOF) 66.

Referring to Fig. 6, a process flow of the mixer and ad selector will be described. The purpose of the mixer 35 (as previously described in reference to Fig. 2) is to take publishers' content and advertisements and combine them together so that the content and the advertisements are mixed on the same page.

In Fig. 6, the mixer 35 is shown receiving two inputs from the publishers: data 50 (which is the content) and E-HTML 61 (which contains the special tags). The layout manager 10 and parser 60 both form a part of the mixer 35. The data 50 is input to the layout manager 10, and the E_HTML 61 is input to the E_HTML parser 60, as previously discussed. Both of these sub-modules then determine where the advertisements can be placed on the publisher's page.

The advertisement list is then input from the ad selector 34. The ad selector 34 receives a focus input 43, retrieves relevant ads (step 70), and creates the advertisement list using the prime space manager 20 (step 71). These advertisements are then placed in the parser 60 and the layout manager 10 (step 72), as described above. The mixer 35 then logs all the essential billing and other user information (step 73) for keeping track of the

system's placement of an advertiser's ad. At this point, a refresh tag is inserted (step 74) and the system outputs an HTML page (step 75).

The HTML page output from the mixer 35 has no special tags and can be displayed by any client that can understand HTML. The E_HTML 61 is peculiar to the present invention. The HTML 75 is the standard HTML used on computer networks. The E_HTML 61 is peculiar in the sense that it has the special tags for advertisements and focus, as discussed above.

The refresh tag inserted at step 74 is a special tag inserted into every page that is to be displayed. The purpose of this tag is to refresh the page if the user does not take any action for a predetermined period of time. The system will refresh and show a new advertisement in the ad space, while leaving the rest of the page the same. Thus, while the user is viewing the page, the system will not show the same advertisements for more than a predetermined period of time so as to take advantage of the user's limited attention span. This permits the system to effectively run as many ads as possible.

For example, while a user is reading an online magazine page, the advertisement may change every so often as the user is viewing the same page. If the user is making changes to the page or is going back and forth on the page, then the advertisements will not be changed by the refresh tag function. The timer for the refresh tag function can be specified by the advertiser or determined by the system.

As described above, there are five basic types of contracts supported by this system. One type of contract, the ratio-based contract, requires that a certain

advertisement has to be shown on the first screen of information or the prime space screen of information for a certain percentage of the time. In order to satisfy this contract, the system has to be able to refresh the prime space screen. Otherwise, once an advertisement was placed on a user's screen it would remain on the screen the entire time that the user is viewing the screen. The insert refresh tag function 74 ensures that the user will be shown new advertisements and not be subjected to the same advertisement for any great length of time.

Referring to Fig. 7, a flow chart of the present invention as used with a home page provider will be described. The flow chart of Fig. 7 is somewhat similar to the flow chart of Fig. 2. However, while the flow chart of Fig. 2 shows the process used with yellow page publishers, the flow chart of Fig. 7 shows the process used with home page provider publishers. As described above, home page providers are publishers that have provided special tags and special focus and advertisement space tags in the meta content supplied to the present system.

To start (step 80), the user enters a query. For example, the user may enter restaurants or cars as a query. The query has a focus, as described above. The system determines what the focus is and, as described above, the system provides the user with a list of categories that relate to the query. For example, if the user requests restaurants, the user might be shown a list of restaurant types, such as Chinese, American, French, Italian, and so forth. The query entered by the user is evaluated by a query form manager (step 81) to determine the focus of the query.

The screen ("Form# 1") illustrated in Fig. 8A is the graphical interface used to enter the query. Form# 1 shows the space (immediately following the phrase "SEARCH FOR") where the user types in the query (in this case "car"). The result of the query is a list of relevant subcategories for cars, as shown in Fig. 8B ("Form# 2").

Referring again to Fig. 7, the category search engine 33 generates a number of subcategories of the query (e.g., cars), and the ad selector 34 (Fig. 7) finds certain advertisements that are related to cars. The mixer 35 mixes these two screens to create the display shown as Form# 2 in Fig. 8B (step 82).

At this point (step 82) the user is asked to make a further selection. That is, the user is asked to pick one or more of the categories displayed in Form# 2 so that the system will provide more specific information. The user may pick, for example, "new and used car dealers retail" by highlighting that item and clicking on the submit button. Upon clicking the submit button, the content provider search engine 83 is accessed. At the same time the ad selector 34 is directed to find appropriate advertisements for the category "new and used car dealers retail."

The content provider search engine 83 and the ad selector 34 then return their respective outputs to the mixer 35. The mixer 35 then mixes the outputs and produces a list of matching content providers plus the advertisements (step 84). The combined display at this point is shown as Form# 3 in Fig. 8C. Form# 3 shows a list of different car dealers in the center of the display, and five advertisements along both sides of the display.

The user is then further asked to make a selection of a particular dealer (e.g., a Mazda 626 dealer or a Ford

Mustang dealer) that the user wants to visit. The user makes the choice, and the choice of the user is given to the content provider dispatcher 85 and the ad selector 34. As the content provider dispatcher 85 is retrieving the requested home page, the ad selector 34 again finds an appropriate advertisement based on the user's request.

For example, the user can pick a Mazda 626 dealer by clicking on Mazda 626. As the page for a Mazda 626 dealer is being retrieved, the ad selector 34 finds advertisements that can be inserted on this page. There may or may not be advertising space on the home page for the Mazda 626 dealer.

If there are no spaces on the home page for the system to place ads, the system will either insert the ads before or after the page, or the system may decide not to place any advertisements at all. In any case, for any home pages requested, the ad selector 34 will attempt to find suitable advertisements and give these ads to the mixer 35, and the mixer 35 at that point will display the content provider's home page with or without ads.

In summary, Figs. 8A-8C show three screen displays referred to in Fig. 7 as Form# 1, Form# 2 and Form# 3, respectively. Form# 1 is the first screen that the user sees and in which the user is expected to type in a general query in the typeable space. This results in a second screen (Form# 2) where the user is asked to make a choice from a list of categories. After choosing from the list of categories in the second screen, a third screen (Form# 3) is shown to the user from which the user makes a choice from a list of subcategories. The present invention uses these three screens also to show ads related to the user's requests. Form# 1 shows two ads for the owner of the

service provider (e.g., Bellcore in this case). Form# 2 shows advertisements related to cars because the user typed in cars. Form# 3 shows more car advertisements relating to particular makes of cars because the user asked for retail car dealers.

Referring to Figs. 9A and 9B, a description of the billing system of the present invention will be provided. Figs. 9A and 9B show two submodules of the system called the info bank and ad auditing. The purpose of these two modules is to construct log reports of various usages of the present invention.

Fig. 9A shows the process flow for the info bank submodule 90. The purpose of the info bank submodule 90 is to log certain kinds of information during a particular client's session. The logged information is then used to provide advertisers with a description of what advertisements have been shown, what the user has bought after seeing an ad, and so forth. Thus, the info bank submodule provides an information bank to show advertisers who has been accessing the system and how successful the ads have been.

The screen for the relevant module contains a link called the info bank which the user can select. When the user clicks on the info bank link, the user is shown the start 91 of the info bank submodule. At this point the user is asked for authentication information (step 92), such as the user's name and personal identification number (PIN). The system then goes into the authentication mode 93 and verifies whether the user ID and PIN number typed in are valid. If the authentication is successful, the system then searches the transaction log and filter (step 94) and pulls up the appropriate log requested by the user. The

user can ask to see all transactions performed by the client or all of the things of a certain type that the user has bought. A report of the results (step 95) is automatically produced for the client and displayed.

The submodule for ad auditing 96 has a similar purpose to the info bank submodule. With the ad auditor, an advertiser that has placed an advertisement with the system is able to go into the system at any point in time and find out who has seen his ad, what was the content of the query when the advertisement was displayed, how many times has the advertisement been displayed, and so forth. The authentication and other process steps are similar to the corresponding steps of the info bank submodule 90.

More specifically, in order to use the ad auditing submodule 96 the advertiser is shown a screen with a link for ad auditing. The user clicks on the ad auditing link and is led into the start 97 of the ad auditing module. The advertiser is then asked to type in authentication information (step 98), which consists of the user name followed by a PIN number. If the PIN and the user name check out and are authenticated by the authentication step 99, the user is then asked to tell the system which advertisement or which subset of advertisements they want to verify or audit (step 100). Once the user specifies the advertisement by name or by browsing all the advertisements in the system and clicking on the ones that the user wants to get a report on, the system generates a report (step 101), which is a log of who has seen the ad, what machine they were using, what time and for how long the advertisement was displayed, and other desired information.

All the log information accessed by the info bank and ad auditing submodules is logged in a single database 23

(Fig. 1). Whether the user is looking for auditing information, transactions, things that the user has bought, or user demographics, the information is all in the same database. However, when a user uses the info bank submodule 90, the user is interested in only certain things, as described above. But when the user uses the ad auditing submodule 96, the user is interested in other things. Therefore, the reports that are produced by the info bank and ad auditing submodules contain different data. The database is filtered and only the items of interest for a certain report are retained so that the rest of the database need not be used.

Referring to Fig. 10, the flow of an ad placement process 110 according to the present invention will be described. The purpose of ad placement is to allow advertisers to enter their advertisements into the system. For entering an ad, the system provides a screen that is shown to the user asking whether the user wants to enter an ad. If the user indicates yes by clicking on that particular choice, the system enters the start 111 of the ad placement mode. At this point the system asks the user for the focus (step 112). The advertiser may say, for example, that he is in the car business, the car washing business, or that he is a physician, a lawyer or whatever other category name that he wants to give. The user is also asked for an advertisement name at step 112. This is just a name for future reference.

The purpose of the focus in step 112, as discussed above, is to prevent an advertisement from being shown that is not relevant to the query at hand. The system of the present invention always shows advertisements that are relevant to what the user has asked for. Therefore, it is

of paramount importance that the system know the context of the ad. Thus, when the advertiser places an ad, the system establishes the focus.

The present invention describes the world in terms of SIC codes, which is a categorization of approximately 64,000 categories. For example, the system knows that there is a distinction between opera glasses and operating tables. It knows a distinction between lawyers and physicians, as well as the distinction between different kinds of physicians. For example, when the user types in bicycle as the focus, the present invention accesses the category search engine 33 and returns a list of subcategories related to the bicycle business (e.g., bicycle repair, bicycle sales, bicycling as a sport, and so forth). The user is prompted (step 114) to select one or more of the subcategories from the list that are relevant to the user's ad. The user can also create his or her own categories at this point. The result is that the advertisement is tied to all of the categories selected or created by the user.

The user may also be asked to provide certain demographic or profile information. For instance, the user can require that his advertisement be shown only to people in age group 30 to 40 or only to people living in Morristown, NJ or any other geographic location. The last item that the user is asked to specify is the contract. The various contracts available to the advertiser are explained above. When the user is finished entering all of this information, the system updates the ad info database (step 115).

The system then either accepts the advertisement (step 116), or the system rejects it. The system might reject

the advertisement because the contract that the user wants cannot be satisfied by the system. If the system decides at this point that the user's contract cannot be satisfied, the system displays to the user the next best possible contract that it can satisfy, and the user is then free to either choose that contract or to suggest a different one for consideration by the system. Upon confirmation of the ad placement, the advertisement becomes a part of the database.

Referring to Fig. 11, the flow of a page placement process 120 according to the present invention will be described. The purpose of the page placement process is similar to the ad placement process described above with reference to Fig. 10. The page placement process 120 is distinct from the case where the page resides outside of the present system, either as a part of a search engine or because somebody else owns the home page. The page placement process is used for publishers interested in creating a home page for use in the present system. The page placement process permits publishers to provide a page with meta tags and meta contacts.

The page placement process has a starting screen 121 in which one of the menu choices is, "Would you like to place a page?" If the user clicks on that menu choice, a screen is shown to the user asking the user to type in a page name, a page URL (i.e., Universal Resource Locator), and a focus. The URL is a physical address in terms of the WWW of where the page is actually residing. As discussed above, the focus is a list of key words that the user believes captures the content of the page.

Upon entry of the focus, page name, and page URL, the system retrieves a list of subcategories from the category

search engine 33 that are related to the focus at hand and displays those subcategories to the user (step 124). The user picks one or more of these subcategories as being relevant to the content of the page. The system is then able to integrate the page into the page database of the present invention (step 125) and return a confirmation of the new home page being linked to the relevant categories (step 126).

Referring to Fig. 12, an architecture of the underlying transaction system of the present invention will be described. One of the basic features of the present invention is that the advertisements displayed to users provide a gateway for the client to take further action with the advertiser. That is, the ads are not just there for the user to see, they are interactive.

For example, if the system shows the user a picture of a car or a cookie and the user wants to buy or receive further information about the advertised product, the user can make a transaction with the system. The transaction can be very simple, such as where the user clicks on the advertisement and is displayed all information about that particular product. Or the transaction could be something more complicated, such as where the user actually enters a dialogue with the system and buys the product.

The flow chart shown in Fig. 12 describes a typical scenario in which the client has seen a certain advertisement and clicks on that advertisement to actually buy something. In particular, whatever this person is going to buy is going to involve multiple servers. The client is running on Host 1, and the transaction that the client is requesting will involve multiple servers, perhaps geographically distributed. Host 4 is a bank server

running at a bank somewhere on the computer network. Host 3 is a transaction server for logging and serving as the transaction focal point. Host 2 is a server that accepts the start of the transaction from the client housed at Host 1.

A typical transaction where the client 130 sees an advertisement and clicks on the advertisement will now be described by reference to the transaction system architecture diagram shown in Fig. 12 and the screen displays shown in Figs. 13A and 13B. The action of clicking on the advertisement is captured by the gate 131 in Host 2, and the appropriate information is then displayed to the client by the transaction client 132 in Host 2. For example, the transaction client 132 might prompt the client to enter the type of transaction desired. The transaction client in Host 2 is a client for a transaction server 133 in Host 3.

Referring to Figs. 13A and 13B, in the typical transaction the user first clicks on an item from a list of features offered by the particular publisher (Fig. 13A), in this case, the item "Internet DMV." A second screen display (Fig. 13B) then appears in which an advertisement is provided in the middle of the page that says "Division of Motor Vehicles, Morristown, New Jersey, Automatic Renewal of Driving License." The user may then click on this particular advertisement. At this point a screen is displayed to the user asking the user what type of transaction the user wants to make. The next screen generated by the transaction client at Host 2 would say, for example, "Would you like to renew your license?" or "Would you like to get a new car registration?" If the user says, "I would like to renew my driver's license," the

request is captured by the transaction client 132 at Host 2 and given to the transaction server 133 in Host 3. The transaction server 133 in Host 3 then receives this request for renewal of driving license, extracts the appropriate forms to be filled out from its local database, and provides the forms to the transaction client 132 in Host 2. The transaction client 132 at Host 2 then receives these forms and fills them out with the client's information with help from the client 130 at Host 1. Thus, the client's name, address, car ID and other necessary information are filled in for the client automatically.

The client 130 is asked to type in a PIN number to start the second part of the transaction. If the client 130 types in the PIN number, the second part of the transaction starts. The second part of the transaction is that the form that has now been filled in and constitutes the request for a renewal of driver's license is sent from the client 130 in Host 1 to the transaction client 132 in Host 2, and from the transaction client 132 in Host 2 to the transaction server 133 in Host 3. At this point, there are two things that have to happen at Host 3. First, the particular request for renewal of the driving license has to be processed by making a record that this person has renewed the license and by sending confirmation back to the client. Second, the transaction server 133 must be paid for the renewal of the driving license. In other words, there has to be a monetary fee that has to be exchanged between the client and the DMV.

In exchanging the monetary fee, the transaction server 133 will also act as a transaction client 134 to the bank server 135 in Host 4. The transaction client 134 sends a message to the bank server 135 in Host 4 indicating that it

has the client's PIN number and the authorization to deduct a certain fee from the client's account. The bank server 135 authenticates that information, logs the information in its own records, and sends back an electronic approval for the debit.

The transaction client 134 at that point indicates receipt of the payment to the transaction server 133 in Host 3. The transaction server 133 in Host 3 logs receipt of the money, receipt of the request, and sends a confirmation message through the transaction client 132 and gate 131 back to the client 130 at Host 1. The confirmation might say, for example, "We have received your request; we have deducted $17 from your account; your license is in the mail; here is your new driving license number; thank you very much."

Referring to Fig. 14, the transaction process of the present invention will now be described by reference to a flow chart. The user starts the process (step 140) by clicking on an appropriate advertisement to ask for a transaction. The system then links the user (step 141) to the transaction server (step 142). The transaction server then returns the required form to the client (step 143), and the client fills in the form with the user's profile information. The form is then resubmitted to the transaction server (step 144). The transaction server accesses the bank server (step 145) to determine whether the user has the required money and whether the money can be withdrawn.

Upon authentication by the bank server, the transaction server receives confirmation from the bank server (step 146) that the user has given a valid account number, and that the bank server has in fact authenticated

the user and has authenticated the deduction of the appropriate sums from the bank. The transaction server then makes the deduction and puts the deducted amount into the bank server's log (step 147). These logs are maintained so that at any time users can find out how much money they have spent or who has bought what things. The transaction server also maintains a transaction server log of the transaction time and any other particulars of the transaction desired (step 148). Once the logging is complete, the transaction server then generates a confirmation of the transaction which is then displayed to the client (step 149).

Referring to Fig. 15, the prime space manager 20 will now be described in further detail. As explained above, an important feature of the present invention is that it offers advertisers certain contractual guarantees as to how and when their ads will be shown in prime space (the first screen of information displayed to the user). These contractual guarantees include frequency-based contracts, ratio or percentage-based contracts, exclusive or competitive contracts, dependent contracts, and story contracts. These contracts can be used alone or combined in a variety of ways, as previously explained.

The prime space manager 20 has a prime space algorithm 150 that accepts as inputs the list of relevant ads that are related to the query at hand, the size of the prime space, and the list of all ad contracts. The prime space manager 20 then looks at all the ad contracts and determines which advertisements to show to the user. The prime space manager 20 then updates the contracts (step 151) to indicate which ads were selected (this information is used in considering which ads to select the next time).

The prime space manager 20 then provides a list of prime space ads to be shown to the appropriate module. That is, the prime space manager 20 accepts a possibly very long list of advertisements and, based on the contracts that it has, filters the ads to a smaller list containing exactly the number of advertisements that it can show based on the size of prime space.

The following examples of prime space algorithms are provided to further illustrate the function and operation of the prime space manager 20 of the present invention. It should be noted that many variations of these algorithms are possible, and that the specific examples provided are for purposes of illustration only.

Notations:

Let $A_1 \ldots\ldots A_n$ denote the advertisements in the system of the present invention.

Let $P_1 \ldots\ldots P_n$ denote the contract values associated with the corresponding advertisements (P_i denotes the contract value associated with advertisement A_i, as a function of the price paid by the advertiser.)

Let S denote the size of the prime space in the system.

Prime Space:

The prime space on a user's terminal means the first screen of data which constitutes the answer to the user's query (plus the relevant advertisements). In this context, advertisers will be assured of "fair" treatment in the sense that their advertisements will be presented to the targeted users in a manner that is commensurate with the fees they were charged. Fairness means equal access as well as controlled access--ensuring that advertisers who pay more are more accessible than those who pay less.

Contracts:

Contracts are specifications that indicate the frequency of display of a given advertisement in response to relevant user queries.

The example prime space algorithms provided below may be used for the following four types of advertisement contracts:

1. Frequency-based: These contracts specify the number of times a given advertisement is to be shown in response to the relevant user queries.

2. Ratio-based: These contracts specify how often a given advertisement is to be shown in the prime space in response to the relevant user queries.

3. Dependent: An ad A_i can have a dependent contract of X% with another ad A_j. The dependent contract will ensure that ad A_i is shown together with A_j at least X% of the times ad A_j will be shown.

4. Exclusive: An ad A_i can have an exclusive contract with another ad A_j. The exclusive contract will ensure that ad A_i will not be displayed along with ad A_j.

Algorithm for Frequency-based Contracts:

WHILE (screen space is not filled)
begin
1. Select an advertisement, say A_i, with the selection biased by the contract value P_i
2. Include A_i in the screen space
end

Algorithm for Ratio-based Contracts:

WHILE (prime space is not filled)
begin
1. Select an advertisement, say A_i, with the selection biased by the contract value P_i
2. Include A_i in the prime space
end

Algorithm for Dependent Contracts:

WHILE (Prime space is not filled)
begin
1. Select an advertisement, say A_i, with the selection biased by the contract value P_i
2. Assign A_i to A
3. WHILE (some advertisement is selected AND prime space is not filled)
   - Select one of the dependents of A, say A_j, with the selection biased by the contract value P_j

- Assign A_j to A
- Include A in the prime space

end

Algorithm for Exclusive Contracts:

WHILE (prime space is not filled)
begin

1. Select an advertisement, say A_i, with the selection biased by the contract value P_i
2. Remove all advertisements A_j's that have an exclusive contract on A_i
3. Remove all advertisements A_k's that A_i has an exclusive contract on
4. Include A_i in the prime space

end

Algorithm for Overall Prime Space Management:

WHILE (prime space is not filled)
begin

1. Select an advertisement, say A_i, with the selection biased by the contract value P_i
2. Assign A_i to A
3. WHILE (some advertisement is selected AND prime space is not filled)
   - Remove all advertisements A_j's that have an exclusive contract on A
   - Remove all advertisements A_k's that A has an exclusive contract with
   - Select one of the dependents of A, say A_m, with the selection biased by the contract value P_m

- Assign A_m to A
- Include A in the prime space

end

Algorithm for Checking Consistency:

Notations:

Let P_A denote the prime space contract value of Node A.

Let $D(A,B,X)$ denote the dependency contract value from advertisement A to advertisement B (A should appear together with advertisement B, X% of the times advertisement B appears).

Let $E(A,B)$ denote the exclusive contract from advertisement A to advertisement B (note that no value is associated with exclusive contracts).

If a new advertisement A is to be introduced into the system with a prime space contract value of P_A, a set of dependency contracts $D(A,1,x),\ldots,D(A,k,y)$ and a set of exclusive contracts $E(A,1),\ldots,E(A,q)$, then for checking the consistency of all the contracts, the following basic checks have to be carried out (more specific checks may be required for specific algorithms and their implementations):

1. Check whether Inequality (I) can be satisfied
2. For each of the dependency contracts $D(A,i,x)$ check whether Inequality (II) can be satisfied
3. For each of the exclusive contracts $E(A,i)$ check whether conditions (III) can be satisfied

The consistency checking algorithm verifies if the new advertisement can be accommodated with the corresponding contract. If the new advertisement can be accommodated, the contract is approved and the system is updated to

reflect the new addition, else, the consistency checking algorithm informs the advertiser of the maximal contract that can be accommodated for the new advertisement.

Install Equation Editor and double-click here to view equation.

Install Equation Editor and double-click here to view equation.

For checking the Dependency Contracts and the Exclusive Contracts a graph is drawn by representing all the advertisements as nodes in a directed graph. A dependency contract "Advertisement *C* appears 50% of the times as advertisement *D* appears (together)" is represented as an edge from the node "*C*" to the node "*D*". A weight of 0.5 is assigned to this edge. For each exclusive contract *E(C,D)*, there exists an edge in the graph. Thus, a graph is formed where the nodes denote the advertisements, and the edges denote the dependency and exclusive contracts.

If a new dependency contract *D(A,B,X)* is to be introduced, then the following check has to be made for consistency:

Install Equation Editor and double-click here to view equation.

If a new exclusive contract *E(A,B)* is to be introduced, the following conditions (*III*) should hold (for any value of *x*):

Install Equation Editor and double-click here to view equation.

where $X_{(A,B)}$ denotes the weight of the dependency edge from A to B, i.e., $D(A,B,X_{(A,B)})$.

Fairness:

The fairness guarantees of an algorithm for the system ensures that the advertisements are displayed in a way that is proportional to the fee charged for that advertisement. The fairness of the frequency-based contract algorithm, ratio-based contract algorithm, and the dependent contract algorithm follows from the probability distribution of the contract values and the random number generator that selects an advertisement with the correct random bias. The probability that the random number generator will generate a number in a particular range is proportional to the length of the range. The larger the range, the more probable that a number corresponding to that range will be selected. Each advertisement is assigned a range of values depending on the fee charged for that advertisement. The more the fee charged, the greater the range assigned to that advertisement. This ensures that the larger the fee, the more frequently (more number of times) that advertisement will be displayed.

Exclusive contracts are constraints imposed on the display of advertisements. Fairness in meeting the exclusive contracts means that the contracts are satisfied (no two advertisements that have an exclusive contract are displayed together). The prime space management algorithm 150 ensures that the exclusive contracts are met, by removing all the advertisements that have a relative contract with an advertisement A, as soon as advertisement A is selected for display in the prime space.

In order to ensure fairness, the contracts have to be consistent. When contracts are negotiated with the advertiser, certain consistency checks (using the

consistency checking algorithm) are made in order to ensure that the fairness guarantees can in fact be met.

Story Advertisements:

Story advertisement is a kind of advertisement in which the advertisement changes dynamically as time progresses. The story advertisement is composed of a sequence of static conventional advertisements, which together tell a story. A story advertisement is displayed using the notion of refresh-insert tags. A refresh tag that is associated with a page denotes the time period after which the story advertisements are refreshed (the next advertisement in the sequence is displayed). All other static advertisements are unaffected by the refresh timer. The refresh tag can be set by the client or the application. Thus, the story advertisement is a logical sequence of a number of advertisements, that will be displayed one at a time at each refresh cycle.

It will be appreciated that the present invention is not limited to the exact construction or process steps that have been described above and illustrated in the accompanying drawings, and that various modifications and changes can be made without departing from the scope thereof. It is intended that the scope of the invention only be limited by the appended claims.

WHAT IS CLAIMED IS:

1. A system for advertising on a computer network, comprising:

a server containing a plurality of advertisements;

means for electronically connecting the server to a computer network; and

means for selecting and retrieving an advertisement from said server in response to a query entered on said network.

2. The system for advertising as set forth in claim 1, wherein said selecting means comprises means for ensuring that a selected advertisement is relevant to the query.

3. The system for advertising as set forth in claim 1, further comprising a mixer means for combining a retrieved advertisement with a content page returned by the computer network in response to the query.

4. The system for advertising as set forth in claim 1, further comprising a prime space manager means for controlling when the advertisements contained on said server are selected by said selecting means, said control being based upon respective advertiser contracts associated with each of said advertisements.

5. The system for advertising as set forth in claim 1, further comprising a local client means for displaying a retrieved advertisement only during a download delay time period in which a user is waiting for a content page to be downloaded in response to the query.

6. The system for advertising as set forth in claim 1, further comprising means for calculating a search time estimation for the query, and means for combining a page containing said search time estimation and a retrieved advertisement.

7. The system for advertising as set forth in claim 1, further comprising means for determining a geographic location of a user that entered the query, and means for selecting an advertisement based upon the user's geographic location.

8. A method for advertising on a computer network, comprising the steps of:

placing a plurality of advertisements on a server;

placing the server in electronic communication with a computer network;

selecting an advertisement on said server in response to a query entered on said network; and

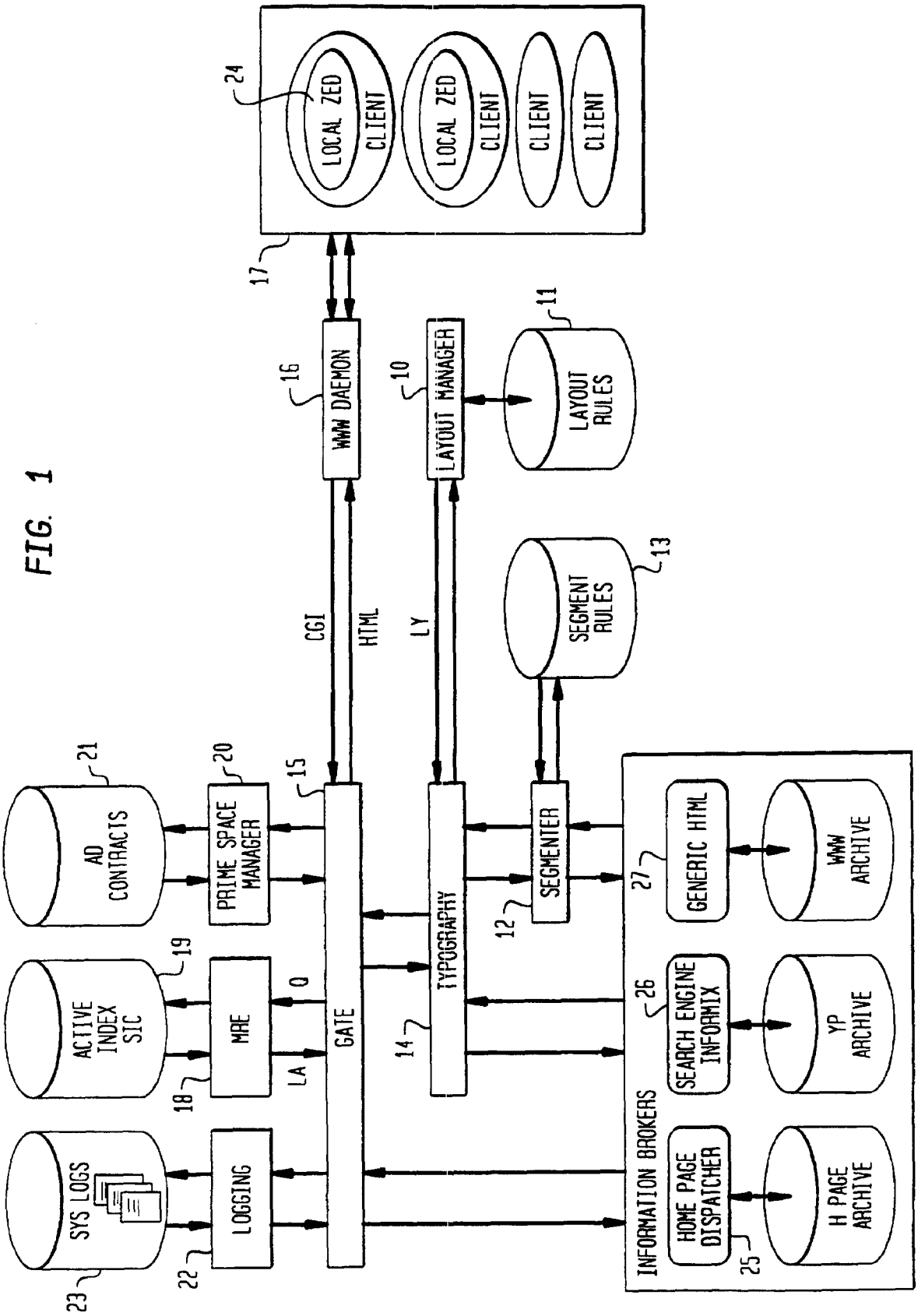
retrieving the selected advertisement from said server for display to a user.

9. The method for advertising as set forth in claim 24, further comprising the step of combining the retrieved advertisement with a content page returned by the computer network in response to the query.

10. The method for advertising as set forth in claim 24, further comprising the step of controlling when the advertisements on the server are selected based upon respective advertiser contracts associated with each of the advertisements.

11. The method for advertising as set forth in claim 24, further comprising the step of displaying the retrieved advertisement only during a download delay time period in which a user is waiting for a content page to be downloaded in response to the query.

FIG. 1


24
LOCAL ZED CLIENT
LOCAL ZED CLIENT
CLIENT
CLIENT
17
16
WWW DAEMON
10
LAYOUT MANAGER
11
LAYOUT RULES
CGI
HTML
LY
13
SEGMENT RULES
21
AD CONTRACTS
20
PRIME SPACE MANAGER
15
19
ACTIVE INDEX SIC
MAE
0
LA
GATE
TYPOGRAPHY
12
SEGMENTER
18
14
27
GENERIC HTML
WWW ARCHIVE
26
SEARCH ENGINE INFORMIX
YP ARCHIVE
INFORMATION BROKERS
HOME PAGE DISPATCHER
H PAGE ARCHIVE
25
SYS LOGS
LOGGING
22
23

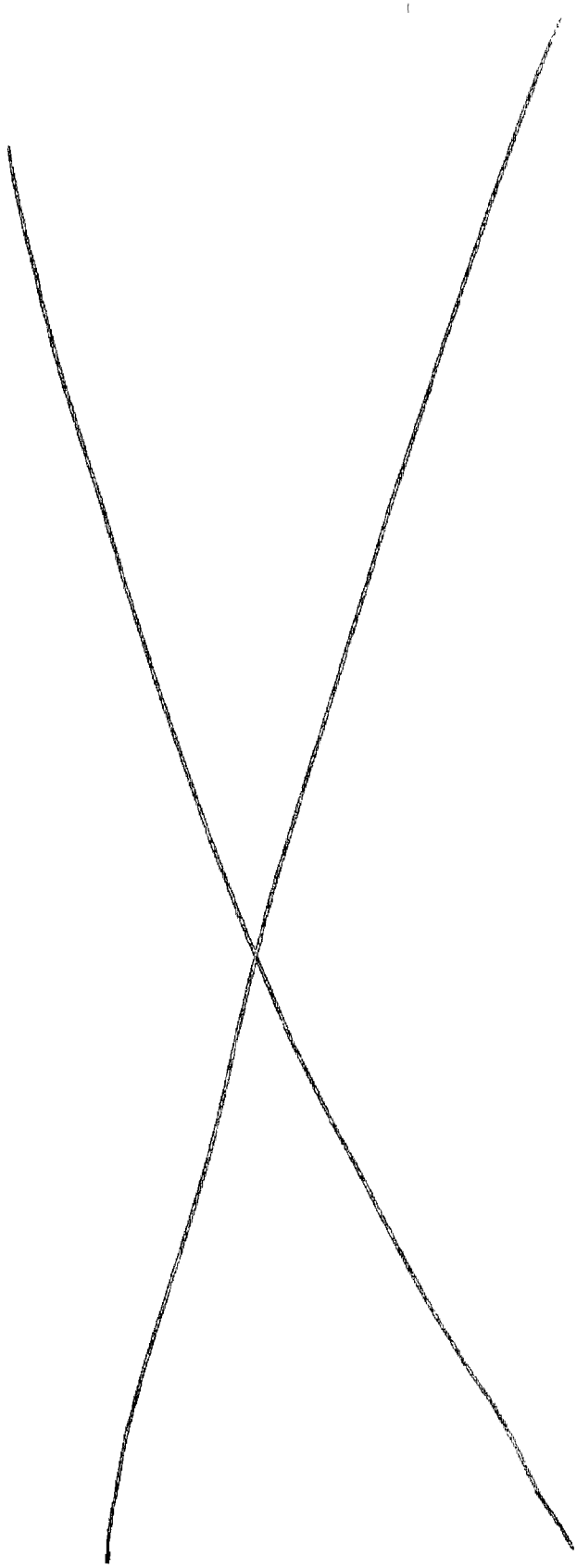
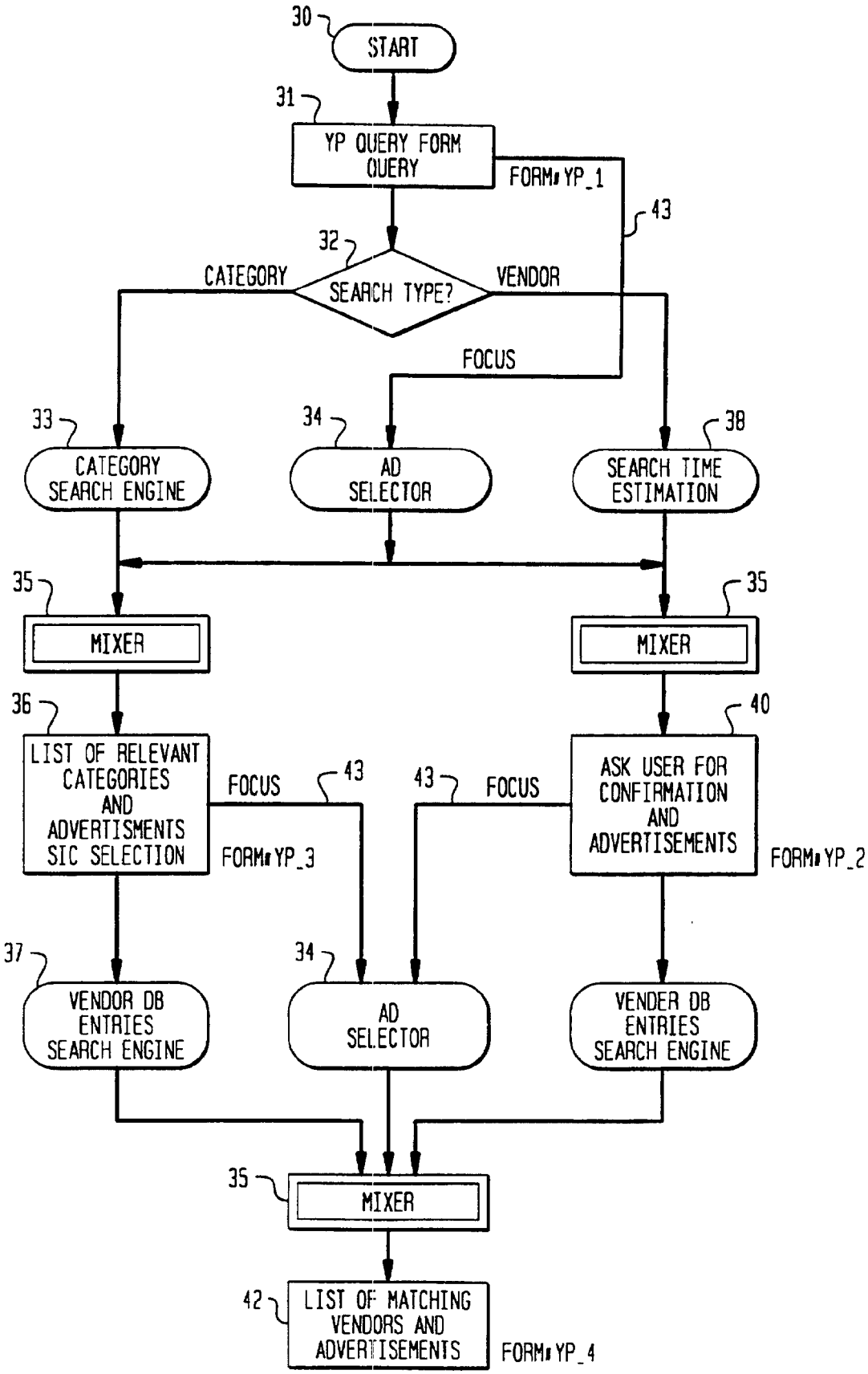
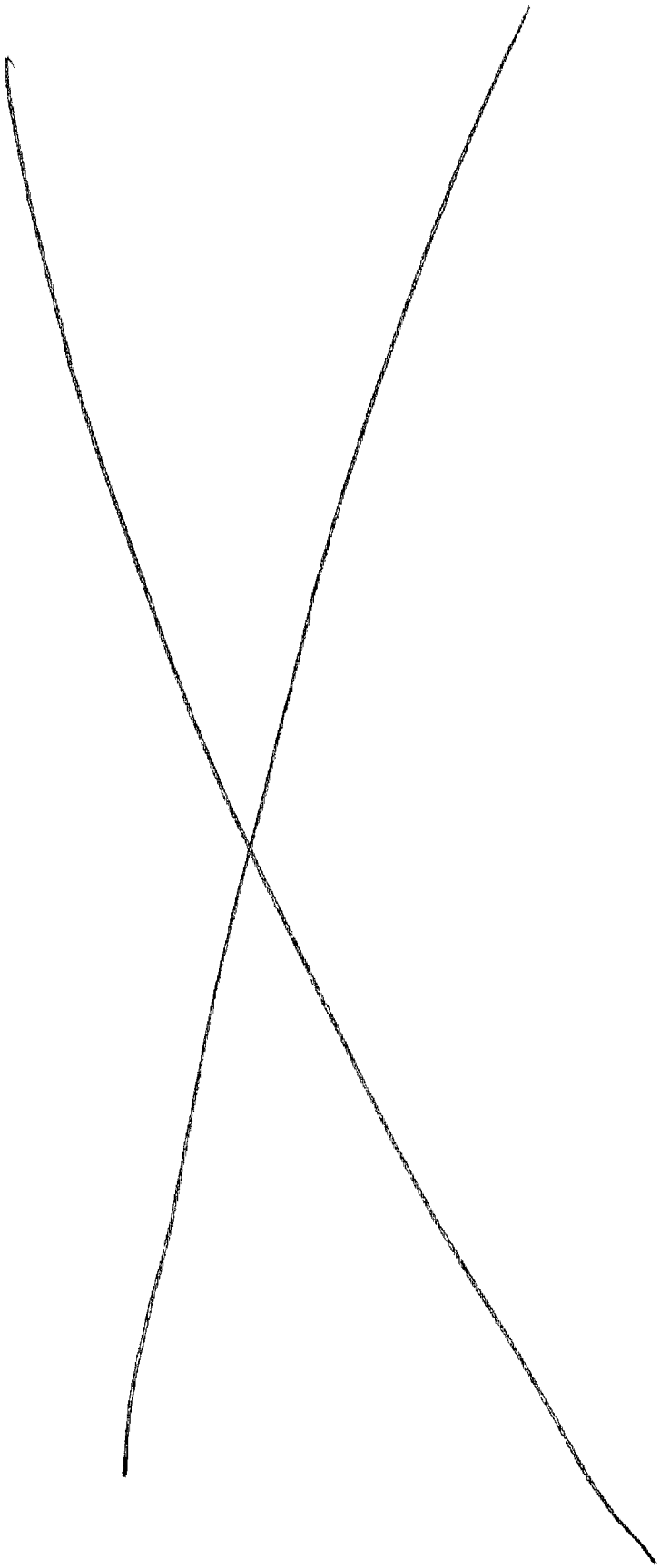


FIG. 2


30
START
31
YP QUERY FORM QUERY
FORM: YP_1
43
32
CATEGORY
SEARCH TYPE?
VENDOR
FOCUS
33
CATEGORY SEARCH ENGINE
34
AD SELECTOR
38
SEARCH TIME ESTIMATION
35
MIXER
35
MIXER
36
LIST OF RELEVANT CATEGORIES AND ADVERTISMENTS SIC SELECTION
FOCUS
43
FORM: YP_3
43
FOCUS
40
ASK USER FOR CONFIRMATION AND ADVERTISEMENTS
FORM: YP_2
37
VENDOR DB ENTRIES SEARCH ENGINE
34
AD SELECTOR
VENDER DB ENTRIES SEARCH ENGINE
35
MIXER
42
LIST OF MATCHING VENDORS AND ADVERTISEMENTS
FORM: YP_4



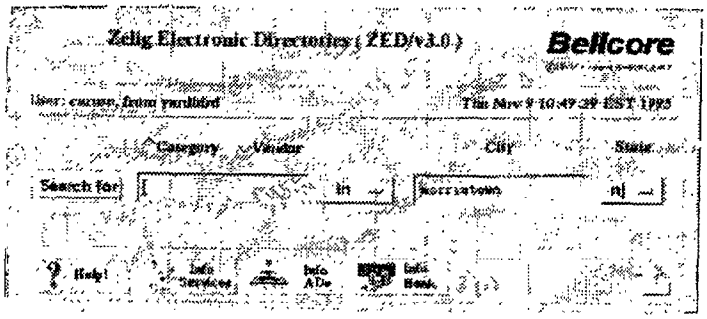


FIG. 3A

FORM# YP_1

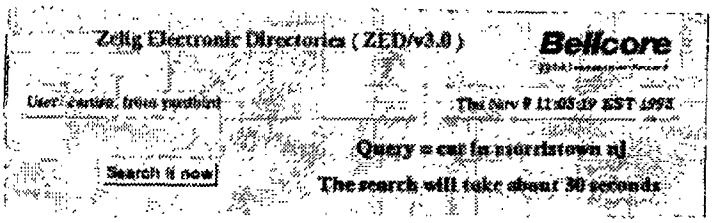


FIG. 3B

FORM# YP_2

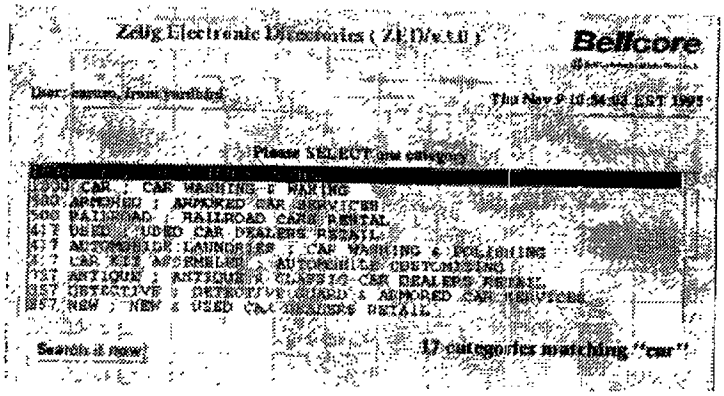


FIG. 3C

FORM# YP_3

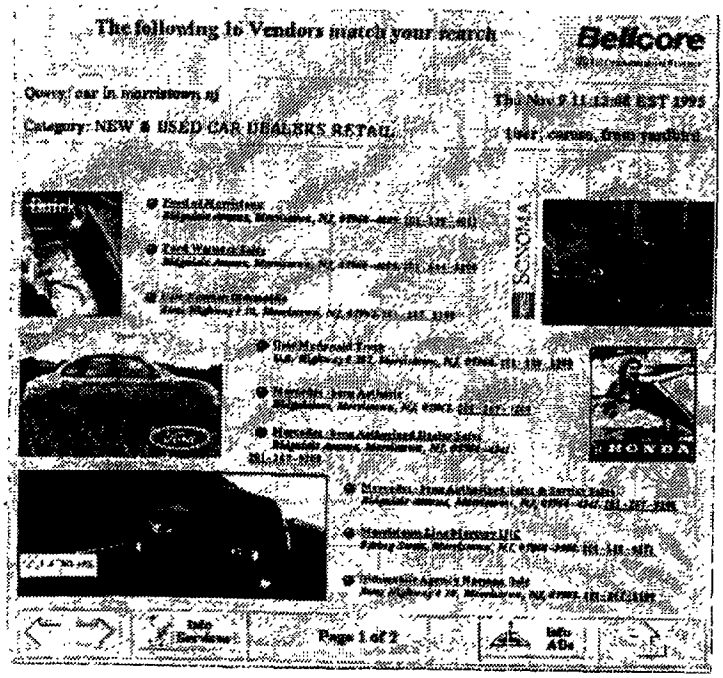


FIG. 3D

FORM# YP_4

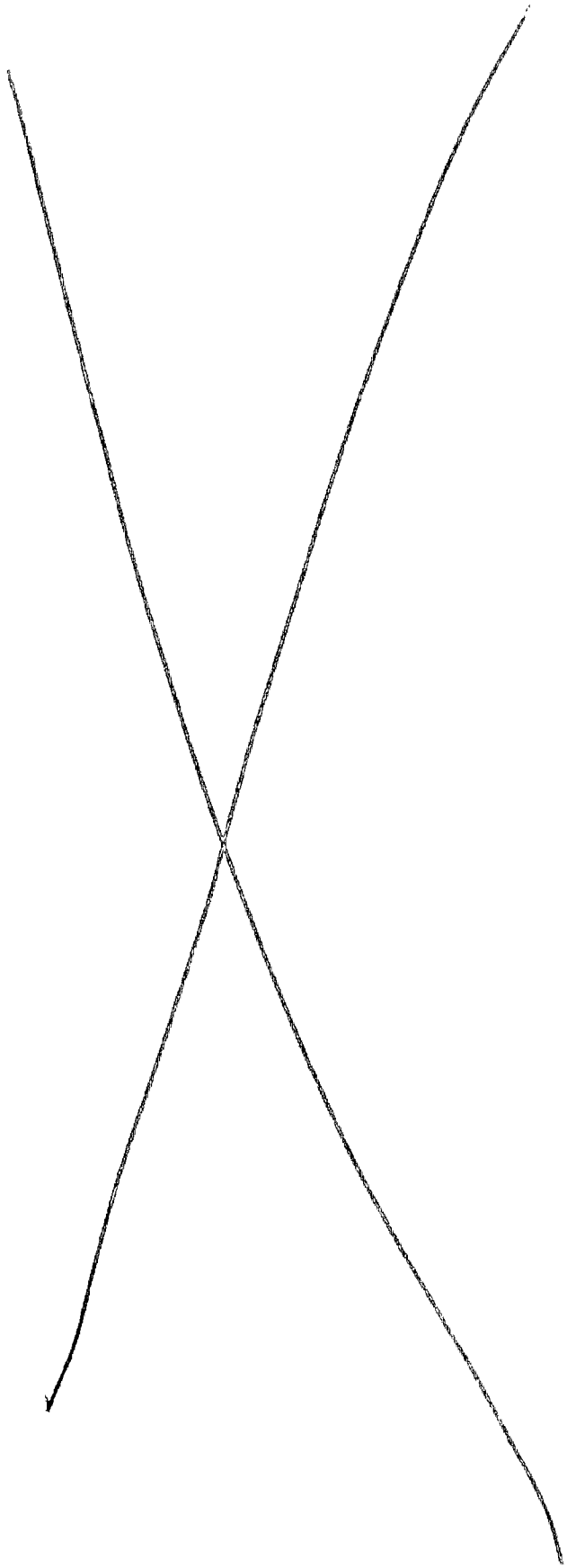
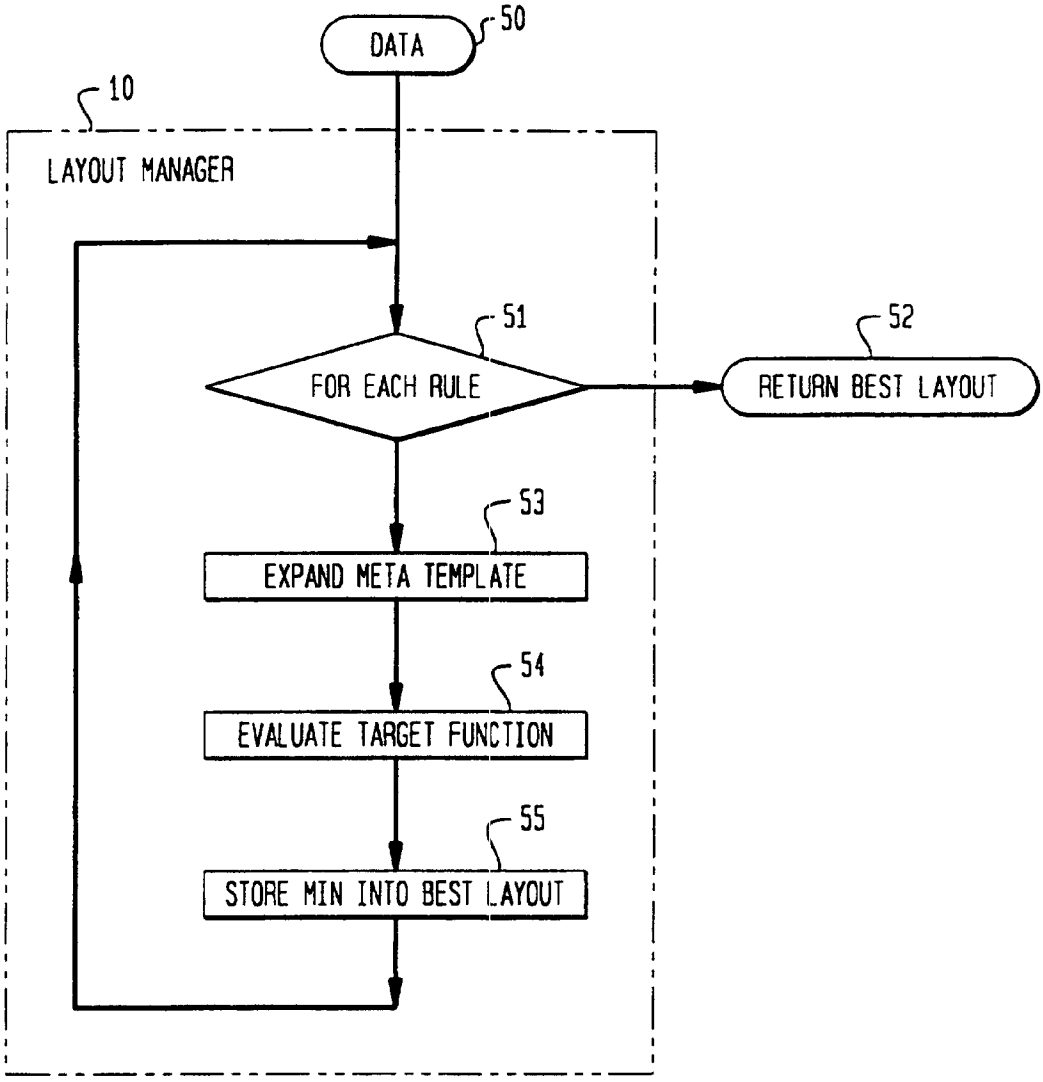


FIG. 4


DATA
50
10
LAYOUT MANAGER
51
FOR EACH RULE
52
RETURN BEST LAYOUT
53
EXPAND META TEMPLATE
54
EVALUATE TARGET FUNCTION
55
STORE MIN INTO BEST LAYOUT

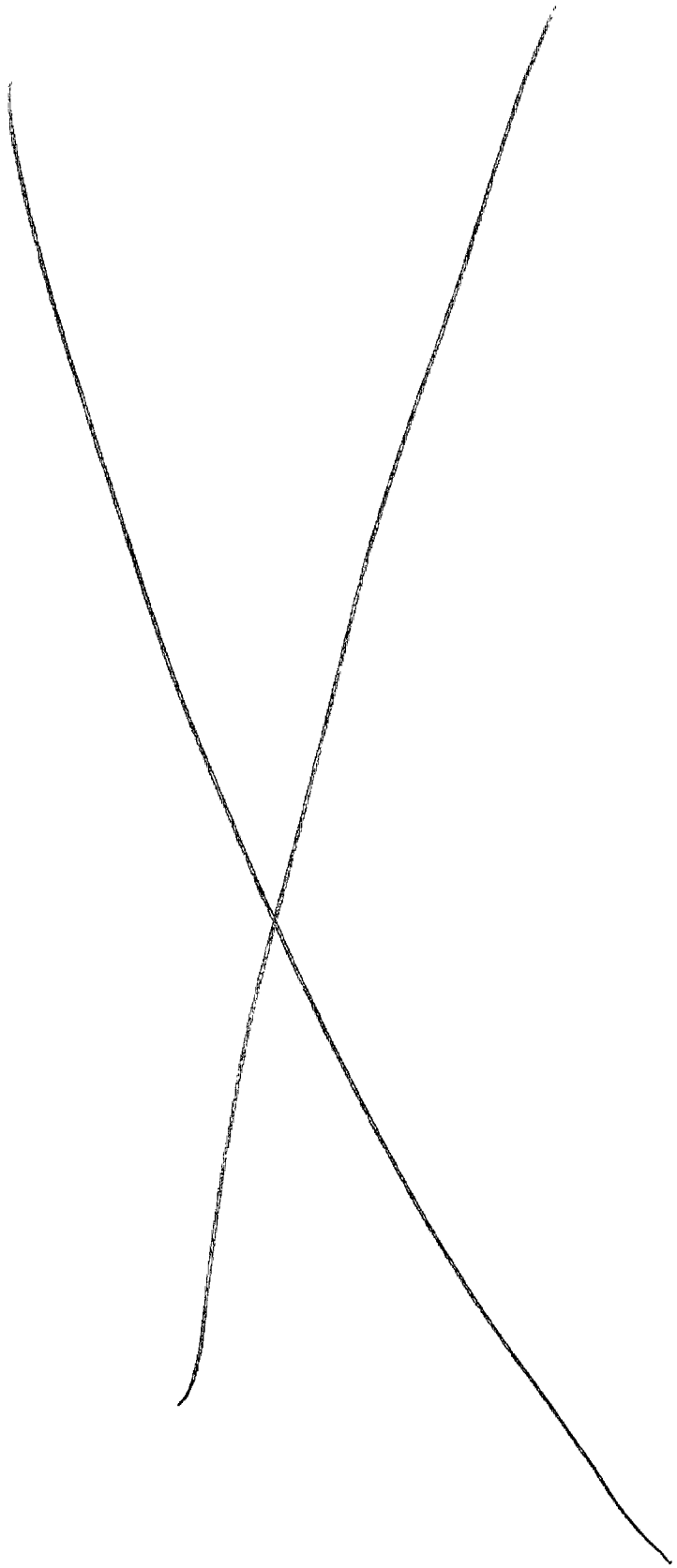
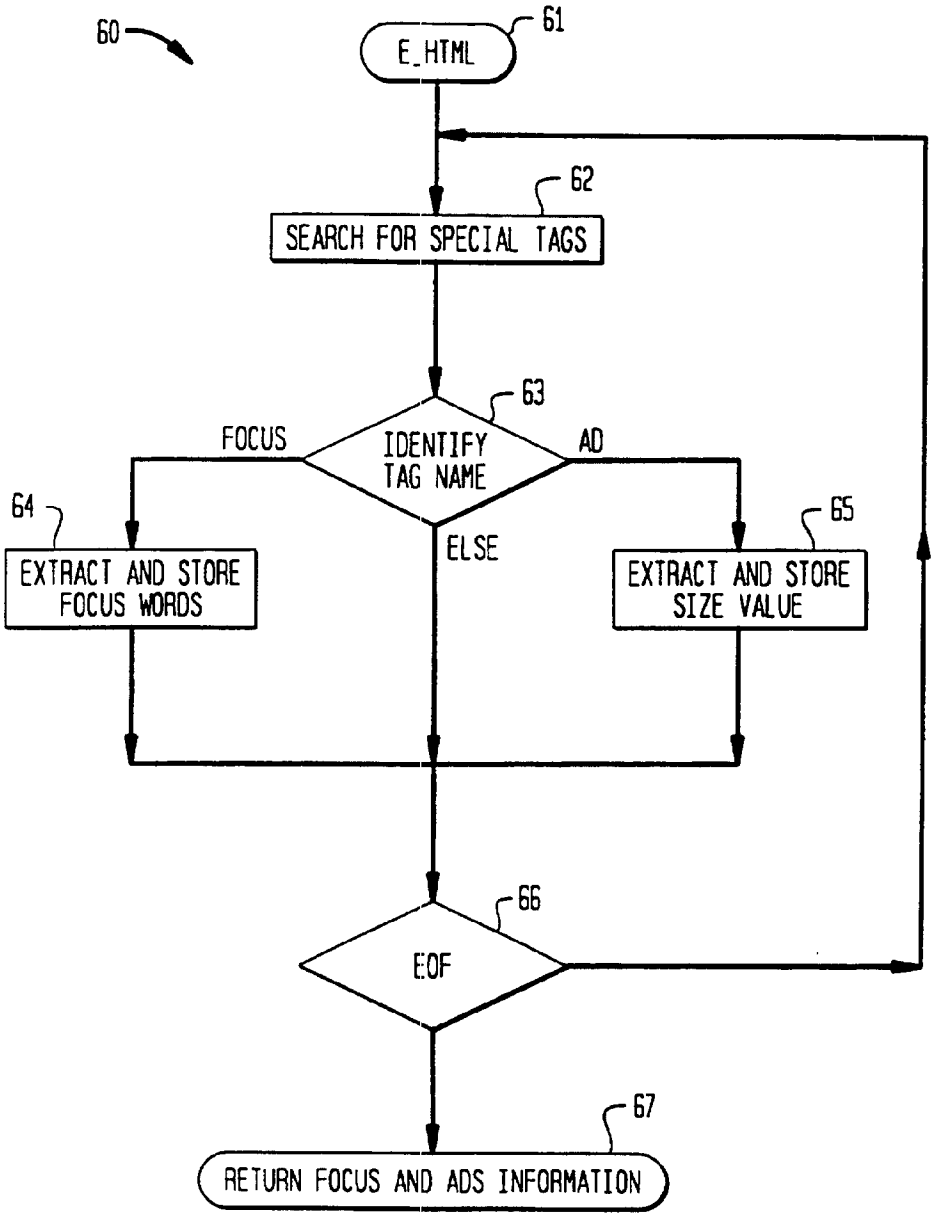


FIG. 5


60
E_HTML
61
SEARCH FOR SPECIAL TAGS
62
IDENTIFY TAG NAME
63
FOCUS
AD
ELSE
64
EXTRACT AND STORE FOCUS WORDS
65
EXTRACT AND STORE SIZE VALUE
EOF
66
RETURN FOCUS AND ADS INFORMATION
67

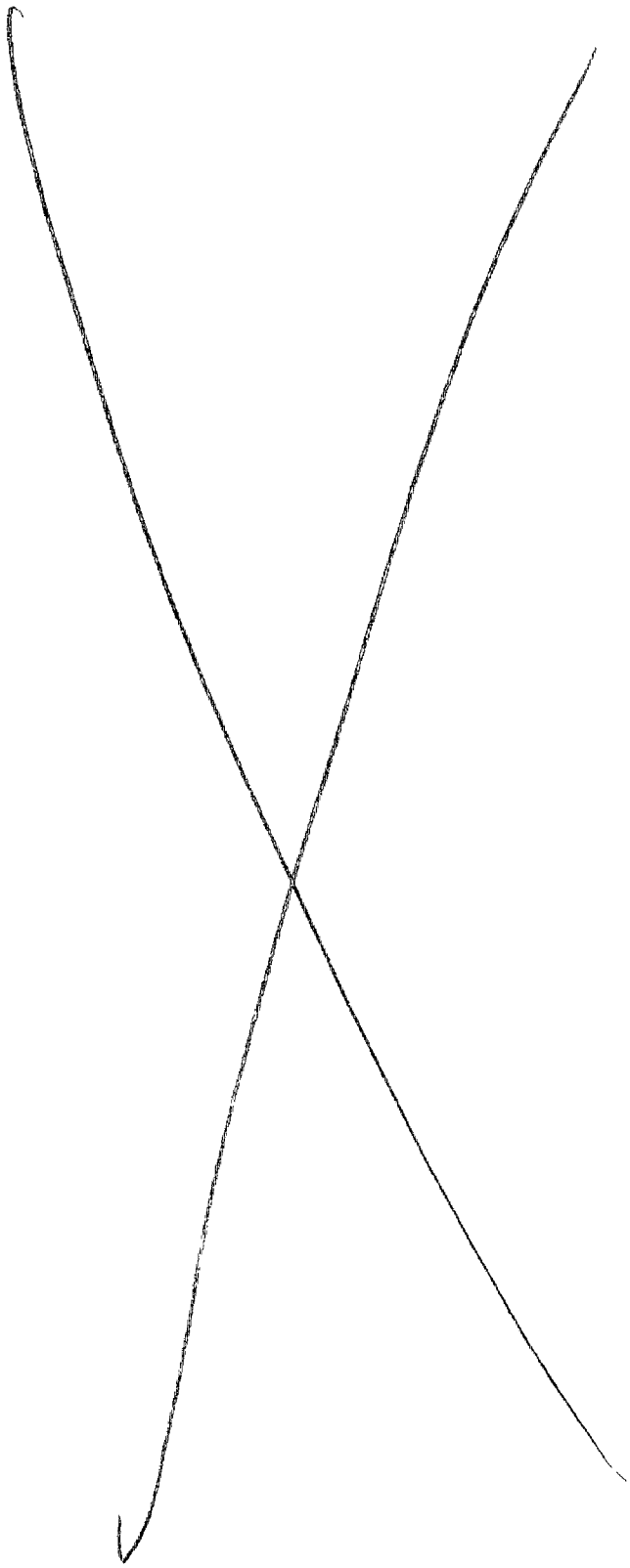
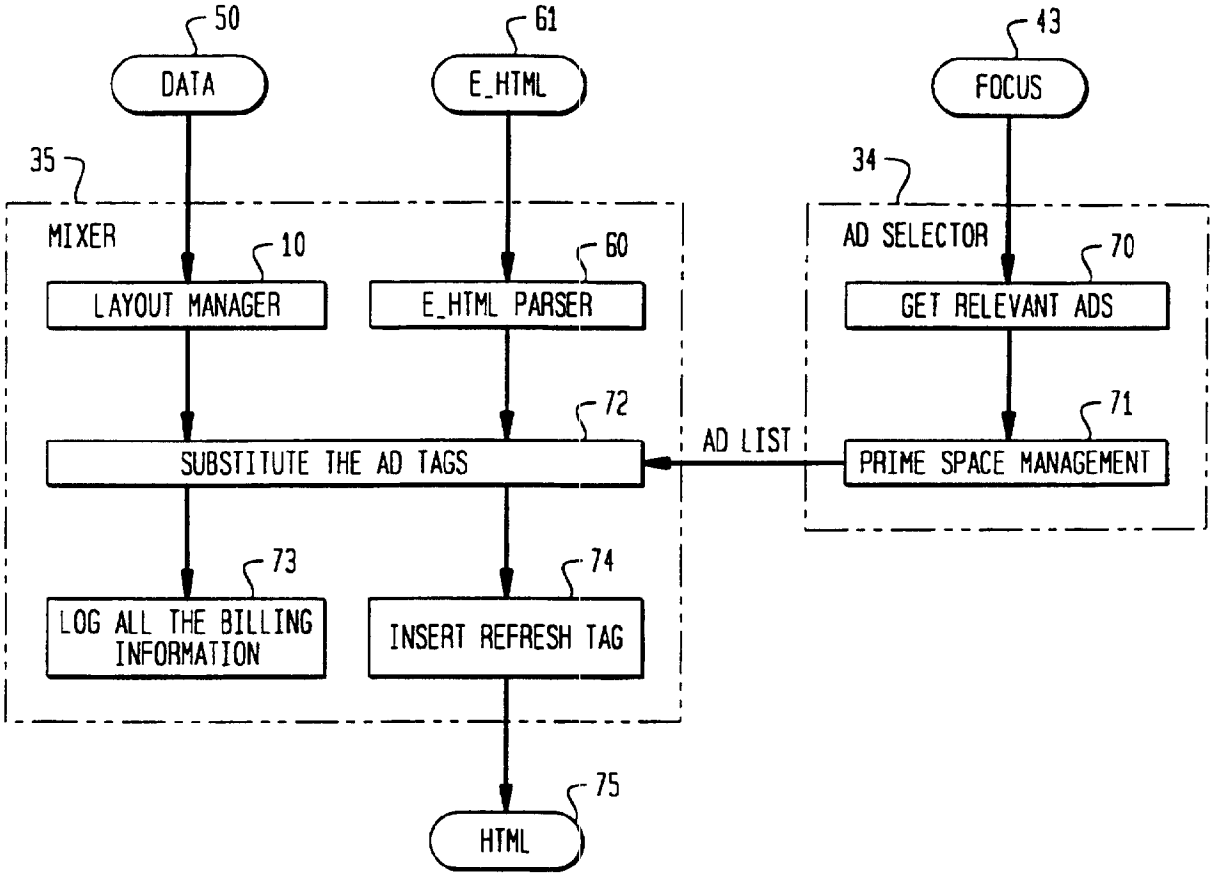


FIG. 6


50
DATA
61
E_HTML
43
FOCUS
35
MIXER
34
AD SELECTOR
10
LAYOUT MANAGER
60
E_HTML PARSER
70
GET RELEVANT ADS
72
SUBSTITUTE THE AD TAGS
AD LIST
71
PRIME SPACE MANAGEMENT
73
LOG ALL THE BILLING INFORMATION
74
INSERT REFRESH TAG
75
HTML

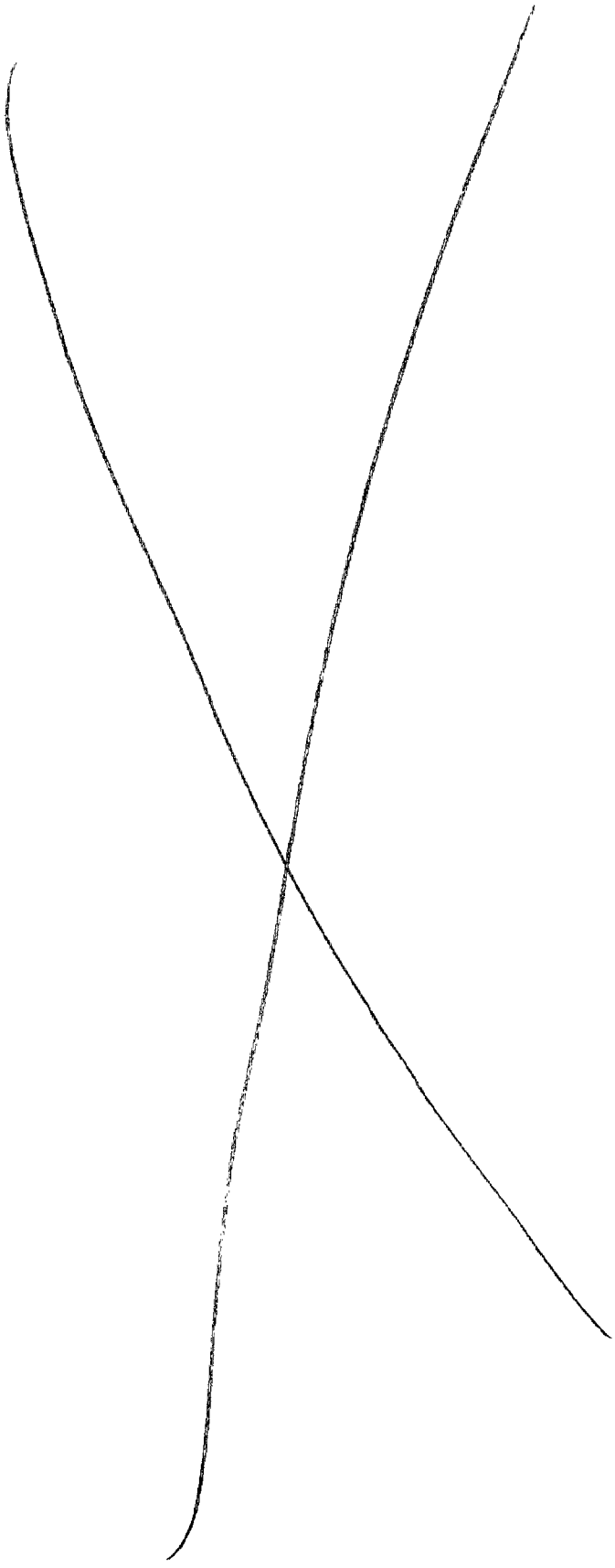
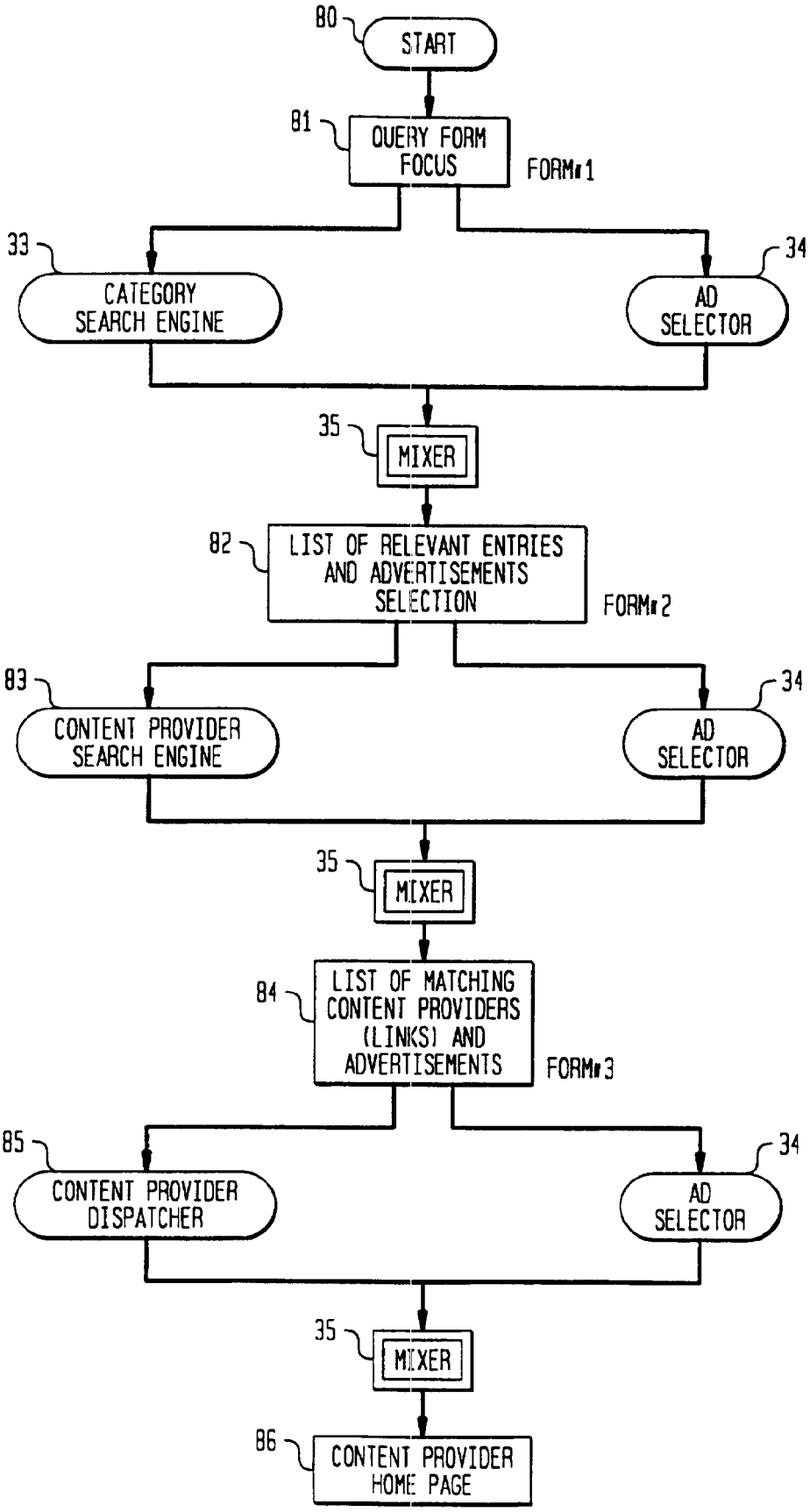


FIG. 7


80
START
81
QUERY FORM FOCUS
FORM#1
33
CATEGORY SEARCH ENGINE
34
AD SELECTOR
35
MIXER
82
LIST OF RELEVANT ENTRIES AND ADVERTISEMENTS SELECTION
FORM#2
83
CONTENT PROVIDER SEARCH ENGINE
34
AD SELECTOR
35
MIXER
84
LIST OF MATCHING CONTENT PROVIDERS (LINKS) AND ADVERTISEMENTS
FORM#3
85
CONTENT PROVIDER DISPATCHER
34
AD SELECTOR
35
MIXER
86
CONTENT PROVIDER HOME PAGE

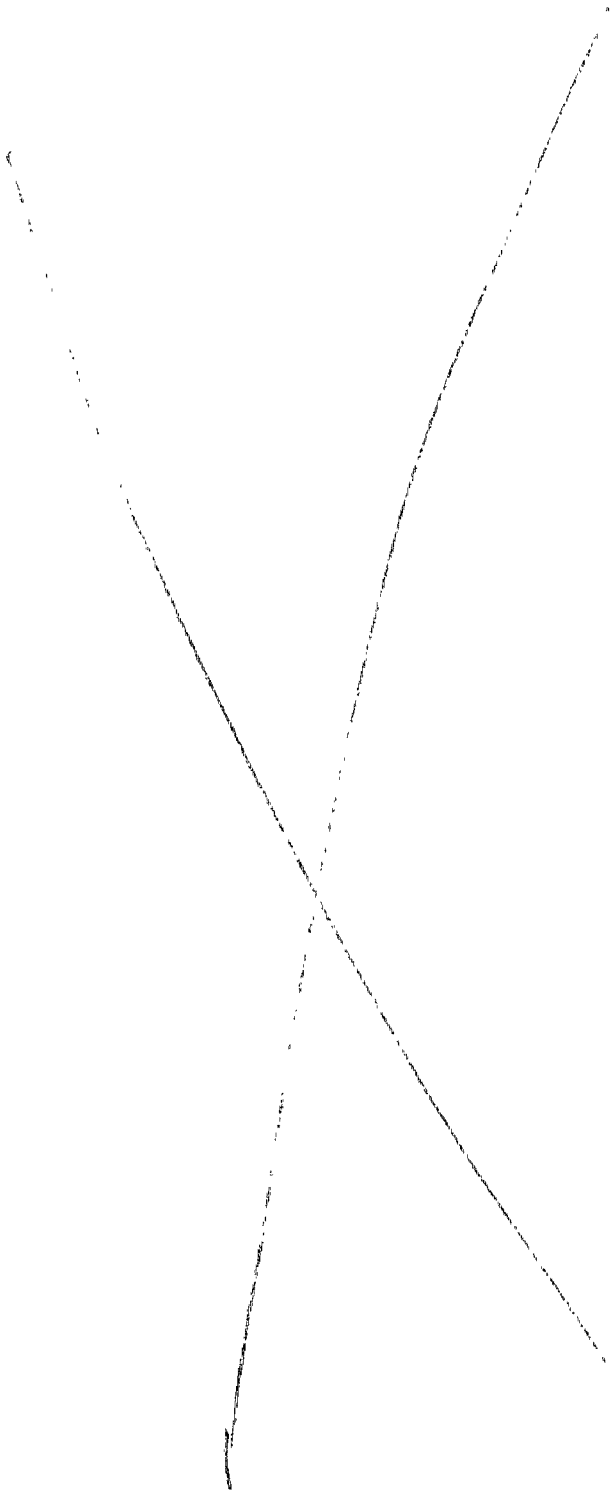
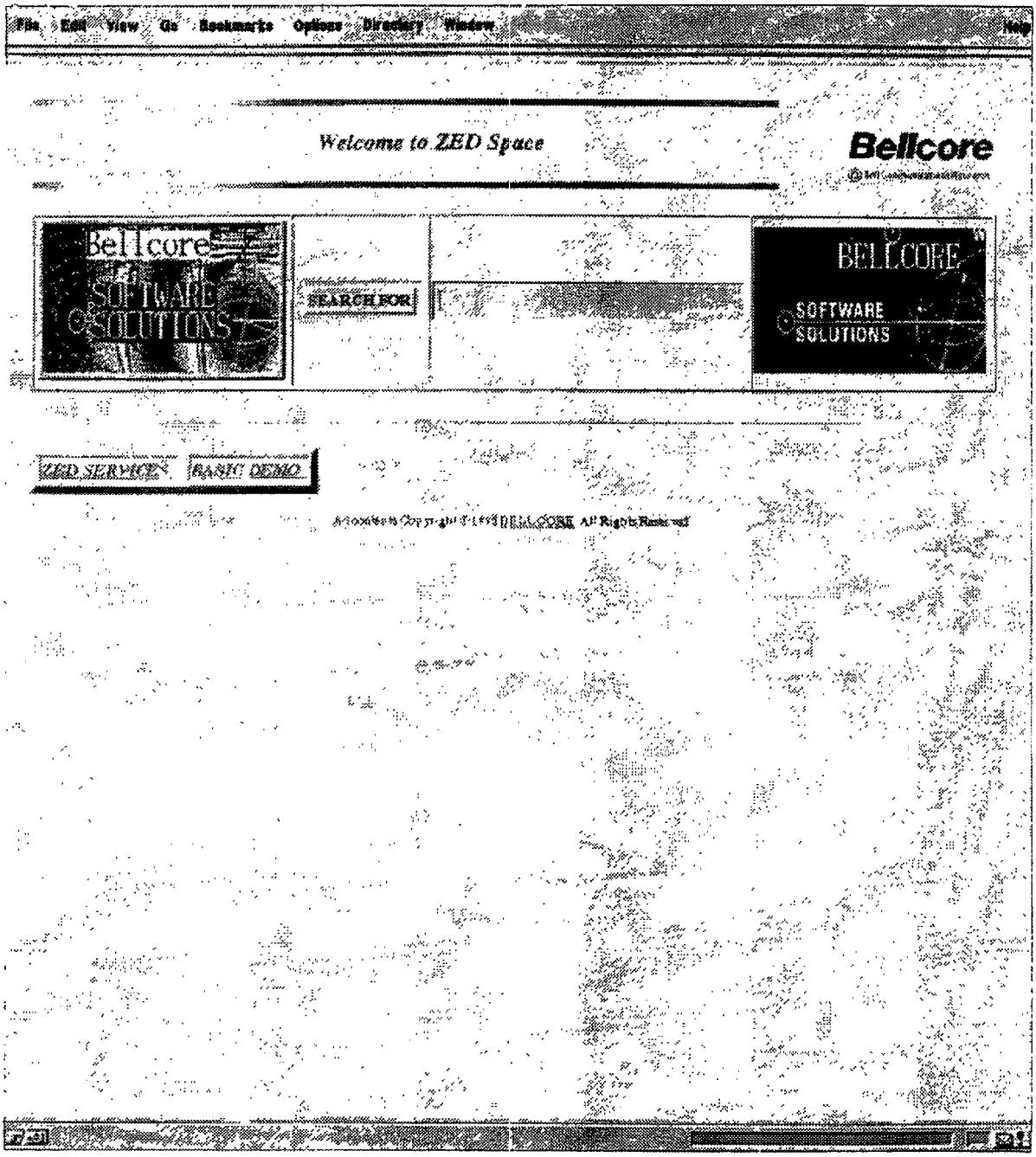


FIG. 8A


File Edit View Go Bookmarks Options Directory Window Help
Welcome to ZED Space
Bellcore
Bellcore SOFTWARE SOLUTIONS
SEARCH FOR
BELLCORE SOFTWARE SOLUTIONS
ZED SERVICE
BASIC DEMO

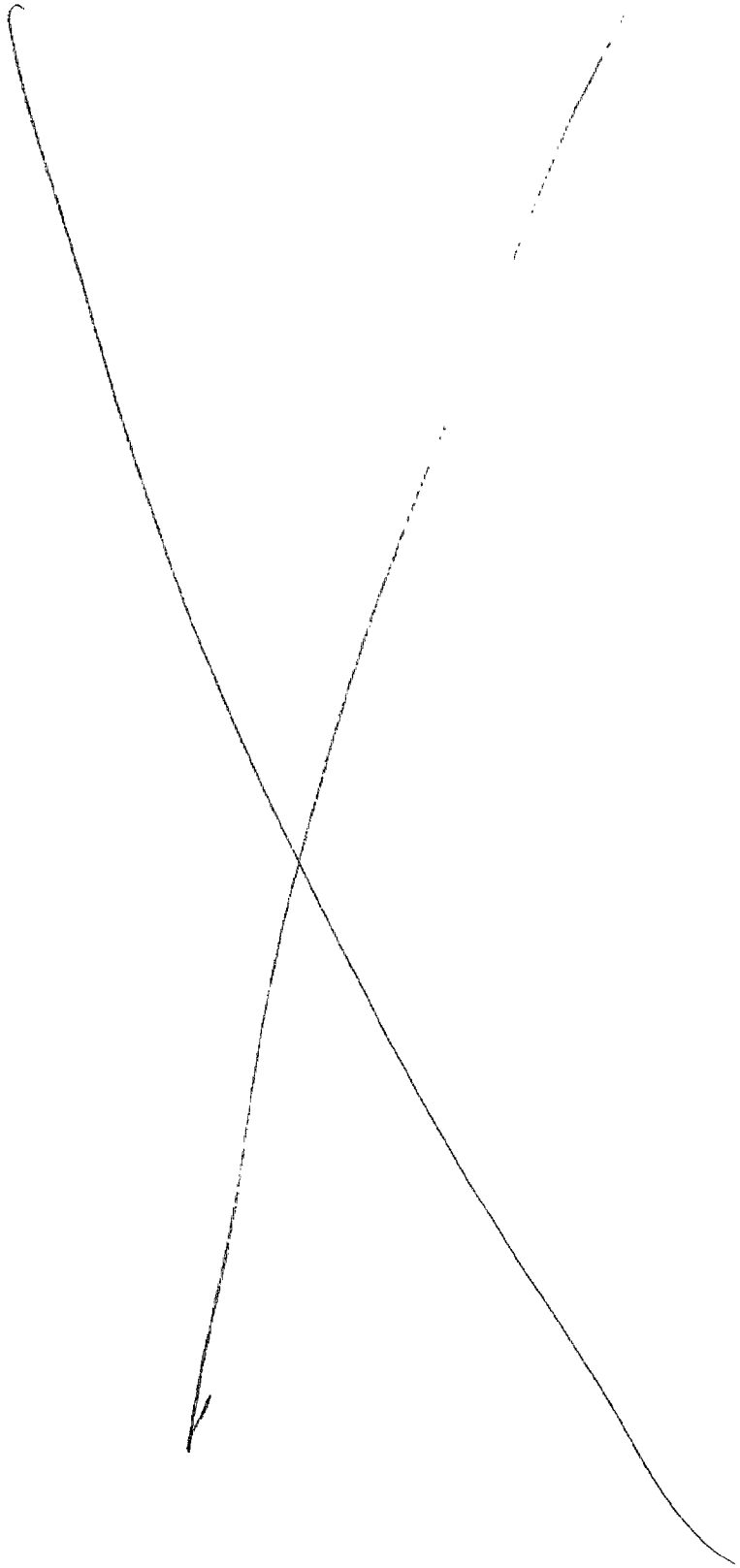
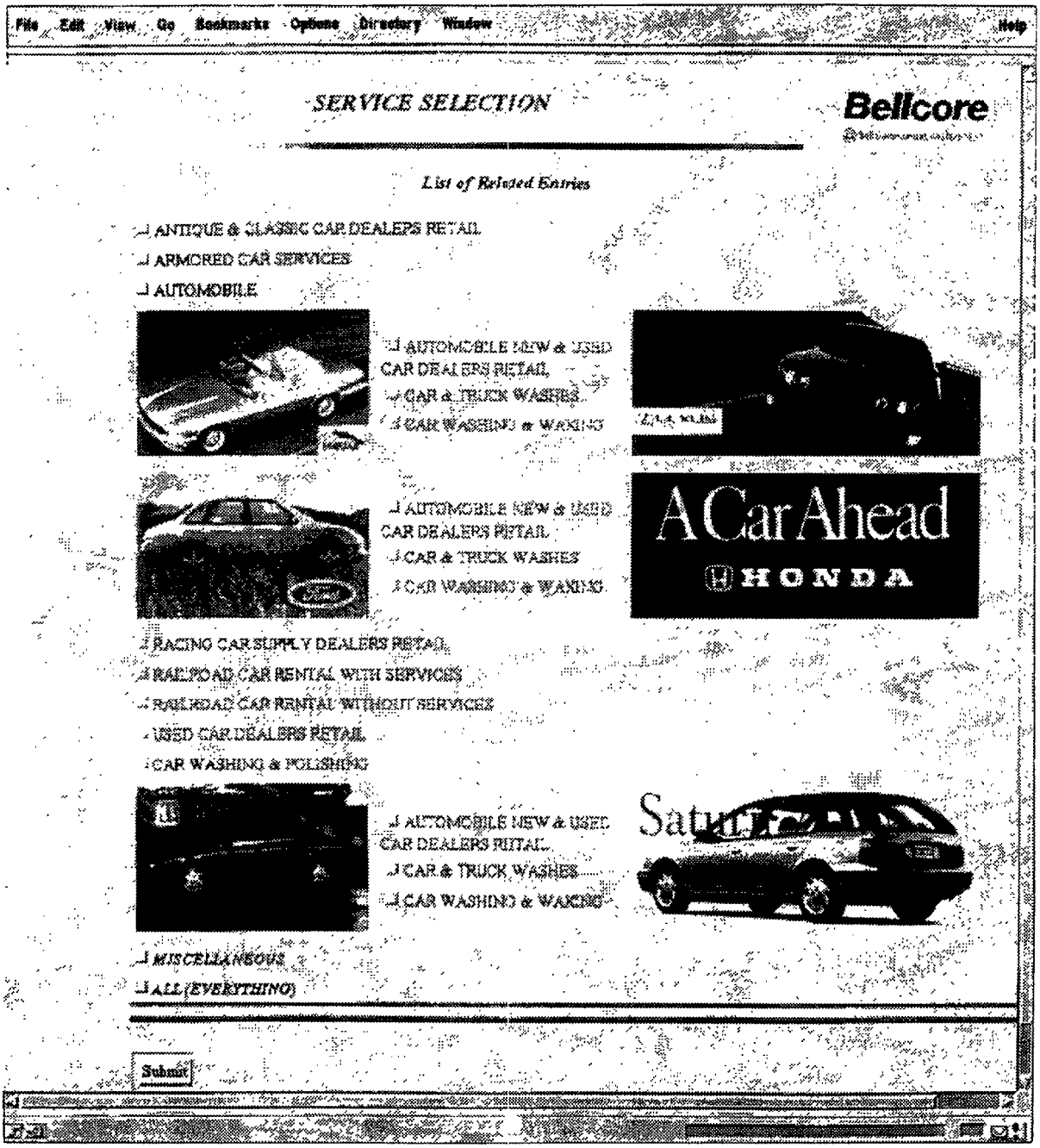


FIG. 8B


File Edit View Go Bookmarks Options Directory Window Help
SERVICE SELECTION
Bellcore
List of Related Entries
ANTIQUE & CLASSIC CAR DEALERS RETAIL
ARMORED CAR SERVICES
AUTOMOBILE
AUTOMOBILE NEW & USED CAR DEALERS RETAIL
CAR & TRUCK WASHES
CAR WASHING & WAXING
AUTOMOBILE NEW & USED CAR DEALERS RETAIL
CAR & TRUCK WASHES
CAR WASHING & WAXING
A Car Ahead
HONDA
RACING CAR SUPPLY DEALERS RETAIL
RAILROAD CAR RENTAL WITH SERVICES
RAILROAD CAR RENTAL WITHOUT SERVICES
USED CAR DEALERS RETAIL
CAR WASHING & POLISHING
AUTOMOBILE NEW & USED CAR DEALERS RETAIL
CAR & TRUCK WASHES
CAR WASHING & WAXING
MISCELLANEOUS
ALL (EVERYTHING)
Submit

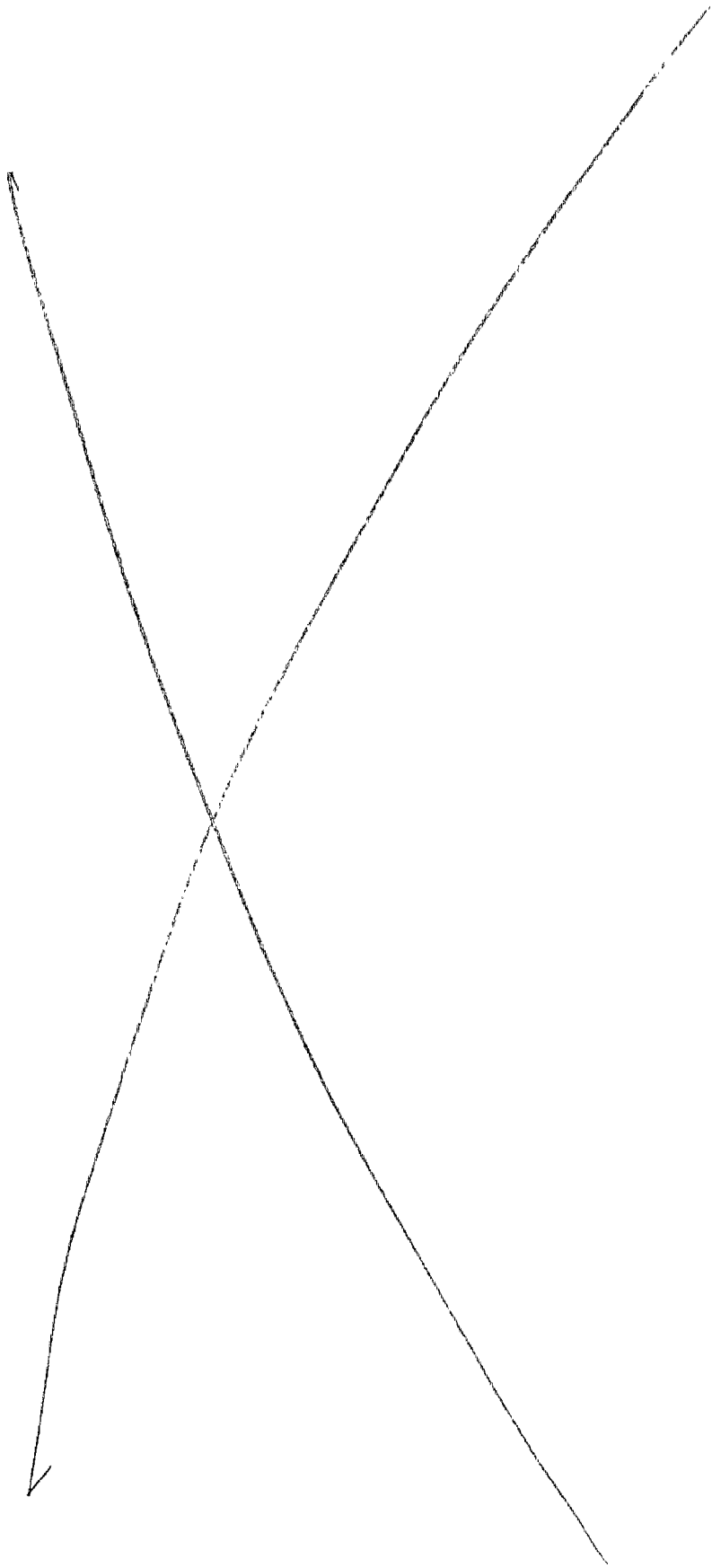


FIG. 8C


File Edit View Go Bookmarks Options Directory Window Help
ZED SERVICES HOME PAGES
Bellcore
Buick
A Car Ahead
HONDA
Thanks for using ZED services.

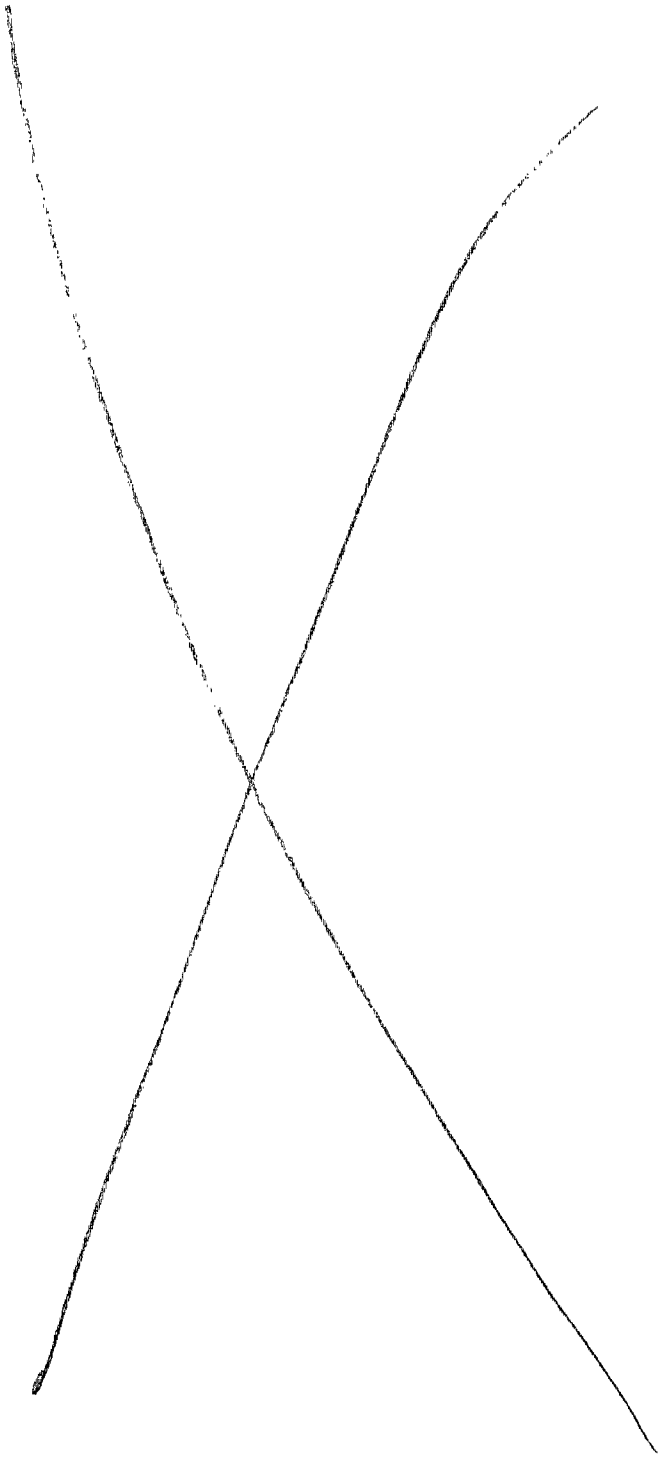


FIG. 9A

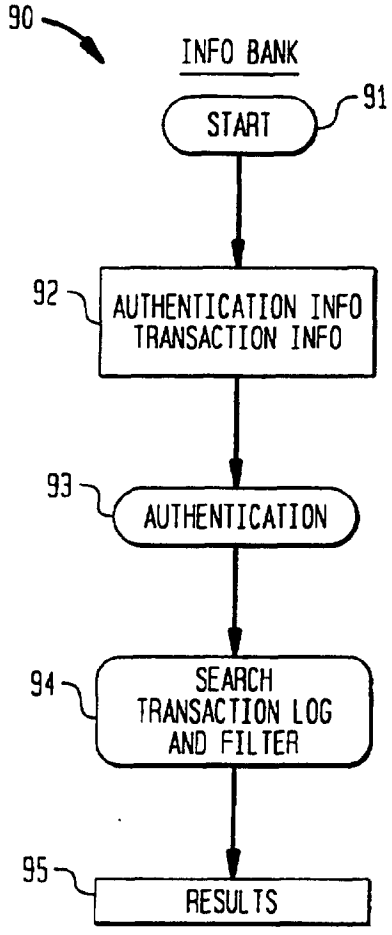
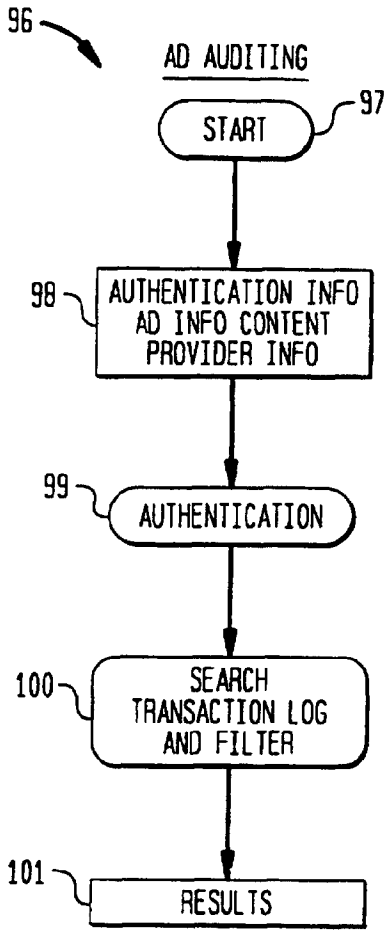

90
INFO BANK
START
91
92
AUTHENTICATION INFO
TRANSACTION INFO
93
AUTHENTICATION
94
SEARCH
TRANSACTION LOG
AND FILTER
95
RESULTS

FIG. 9B


96
AD AUDITING
START
97
98
AUTHENTICATION INFO
AD INFO CONTENT
PROVIDER INFO
99
AUTHENTICATION
100
SEARCH
TRANSACTION LOG
AND FILTER
101
RESULTS

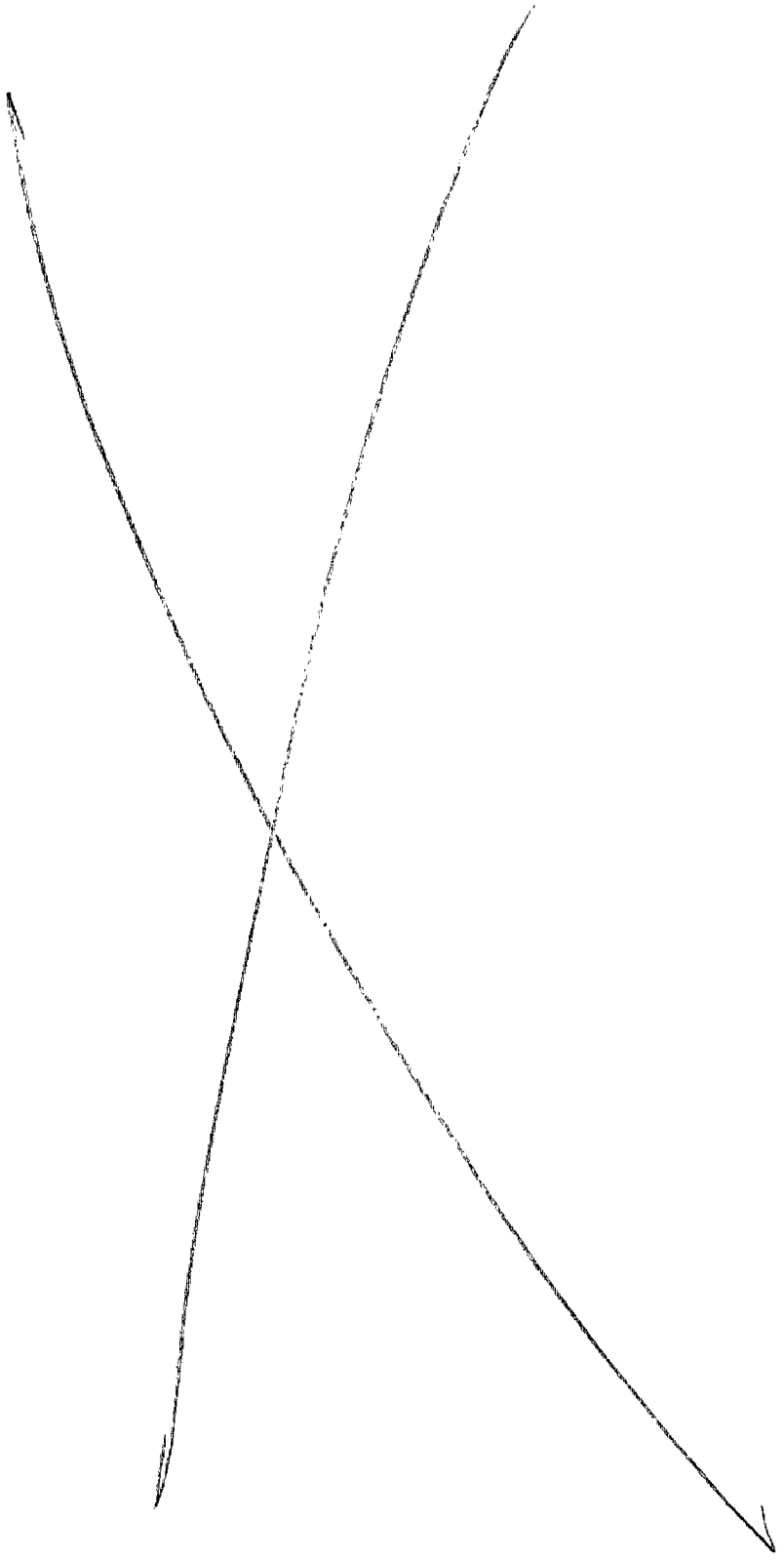


FIG. 10

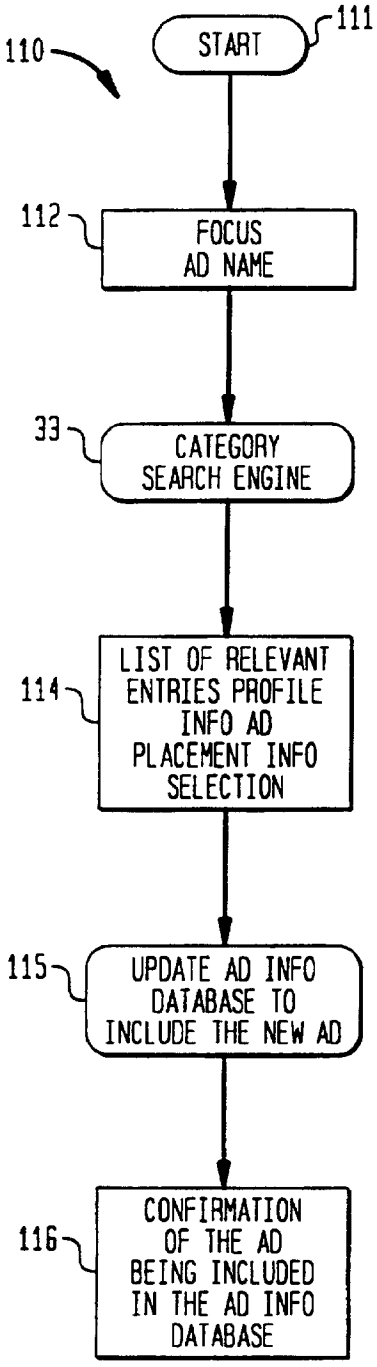
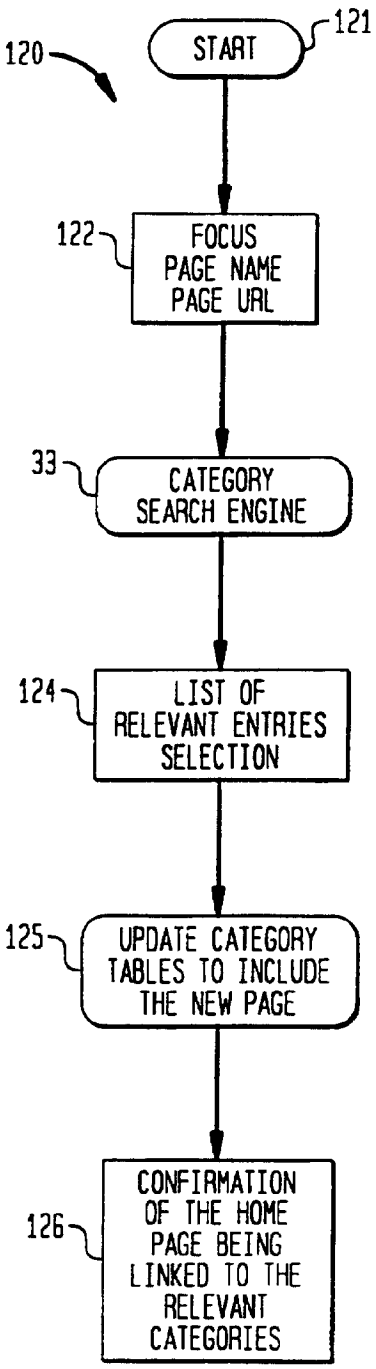
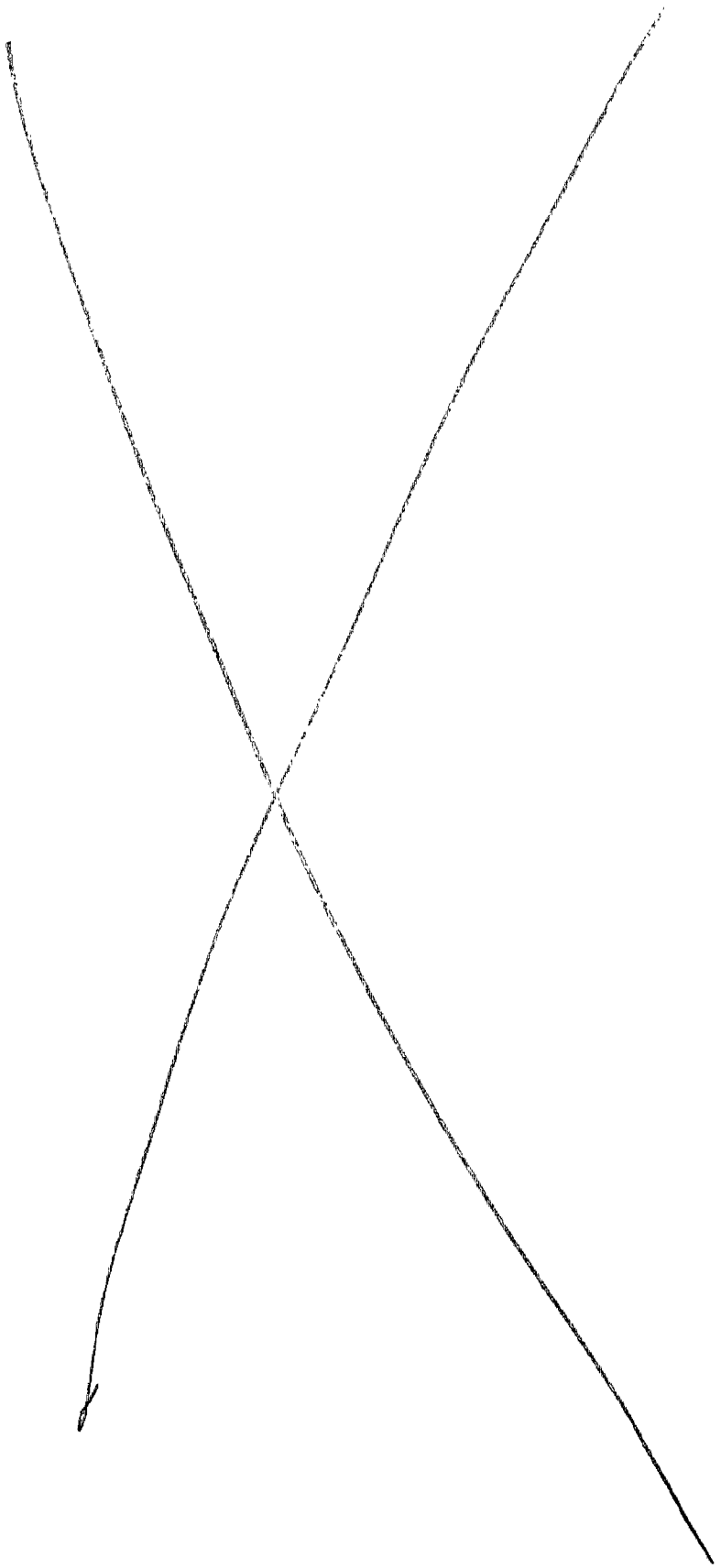

110
START
111
112
FOCUS AD NAME
33
CATEGORY SEARCH ENGINE
114
LIST OF RELEVANT ENTRIES PROFILE INFO AD PLACEMENT INFO SELECTION
115
UPDATE AD INFO DATABASE TO INCLUDE THE NEW AD
116
CONFIRMATION OF THE AD BEING INCLUDED IN THE AD INFO DATABASE

FIG. 11


120
START
121
122
FOCUS PAGE NAME PAGE URL
33
CATEGORY SEARCH ENGINE
124
LIST OF RELEVANT ENTRIES SELECTION
125
UPDATE CATEGORY TABLES TO INCLUDE THE NEW PAGE
126
CONFIRMATION OF THE HOME PAGE BEING LINKED TO THE RELEVANT CATEGORIES



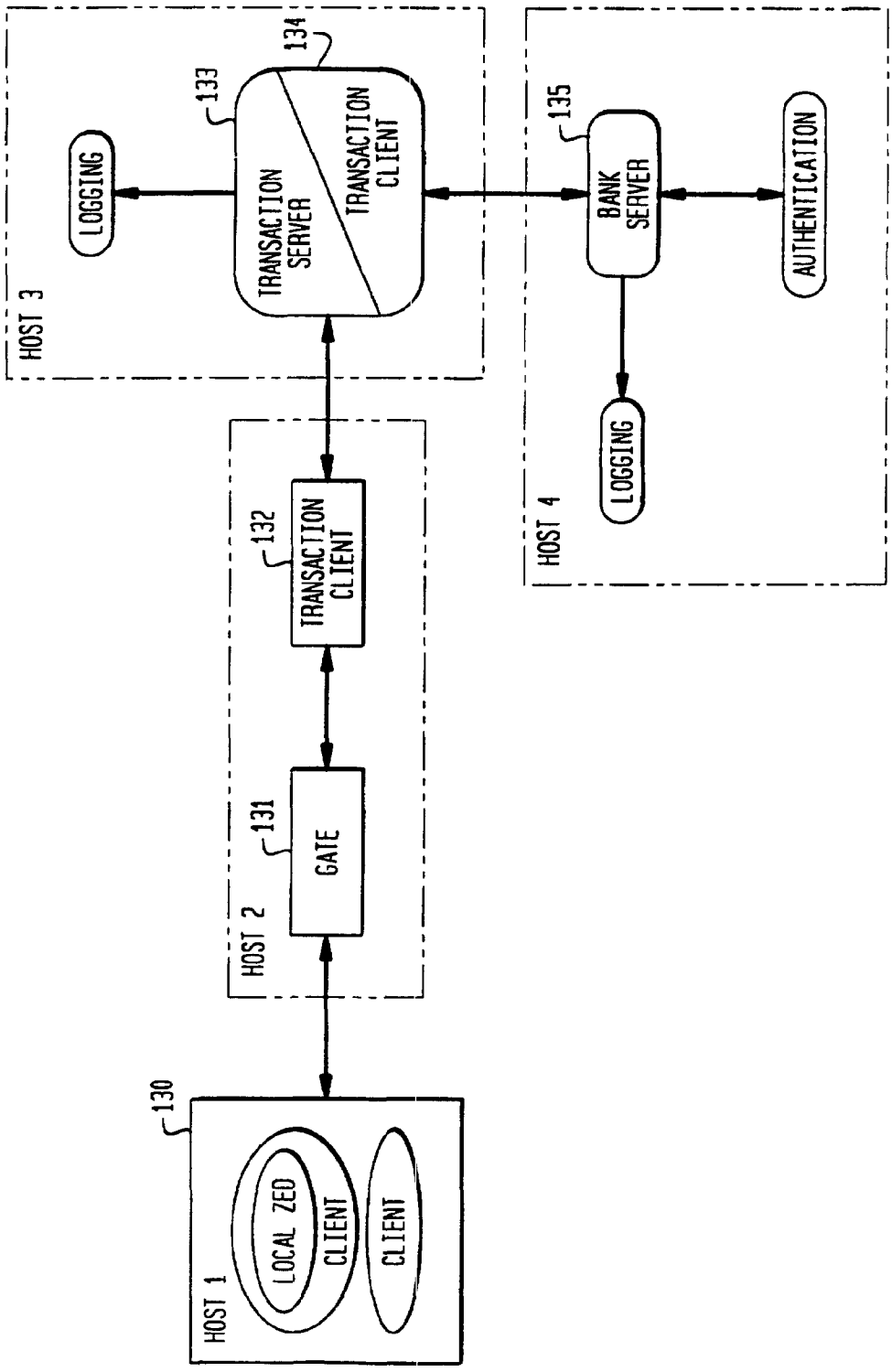

HOST 1
130
LOCAL ZED CLIENT
CLIENT
HOST 2
131
GATE
132
TRANSACTION CLIENT
HOST 3
133
TRANSACTION SERVER
134
TRANSACTION CLIENT
LOGGING
HOST 4
135
BANK SERVER
AUTHENTICATION
LOGGING

FIG. 12

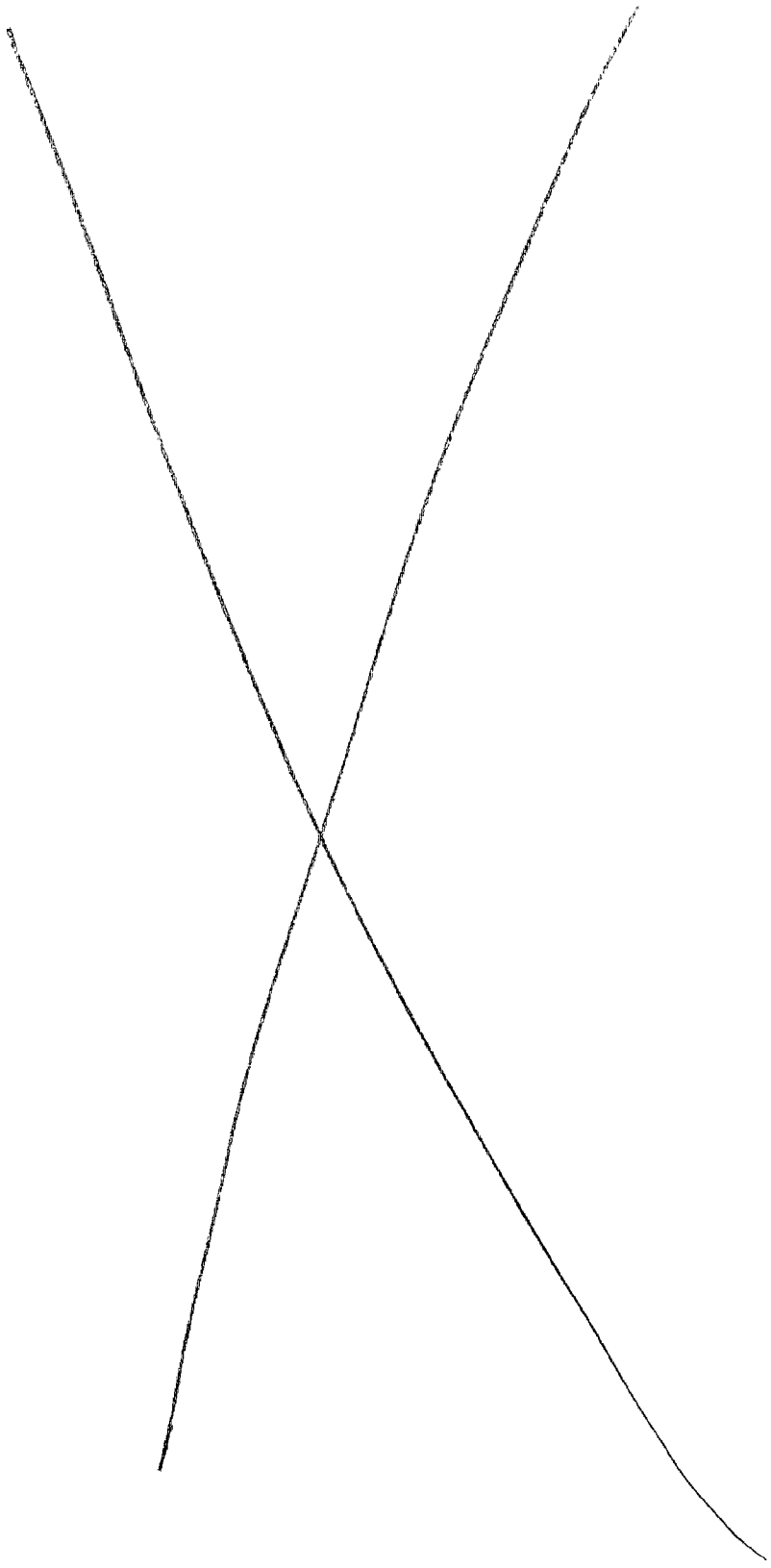
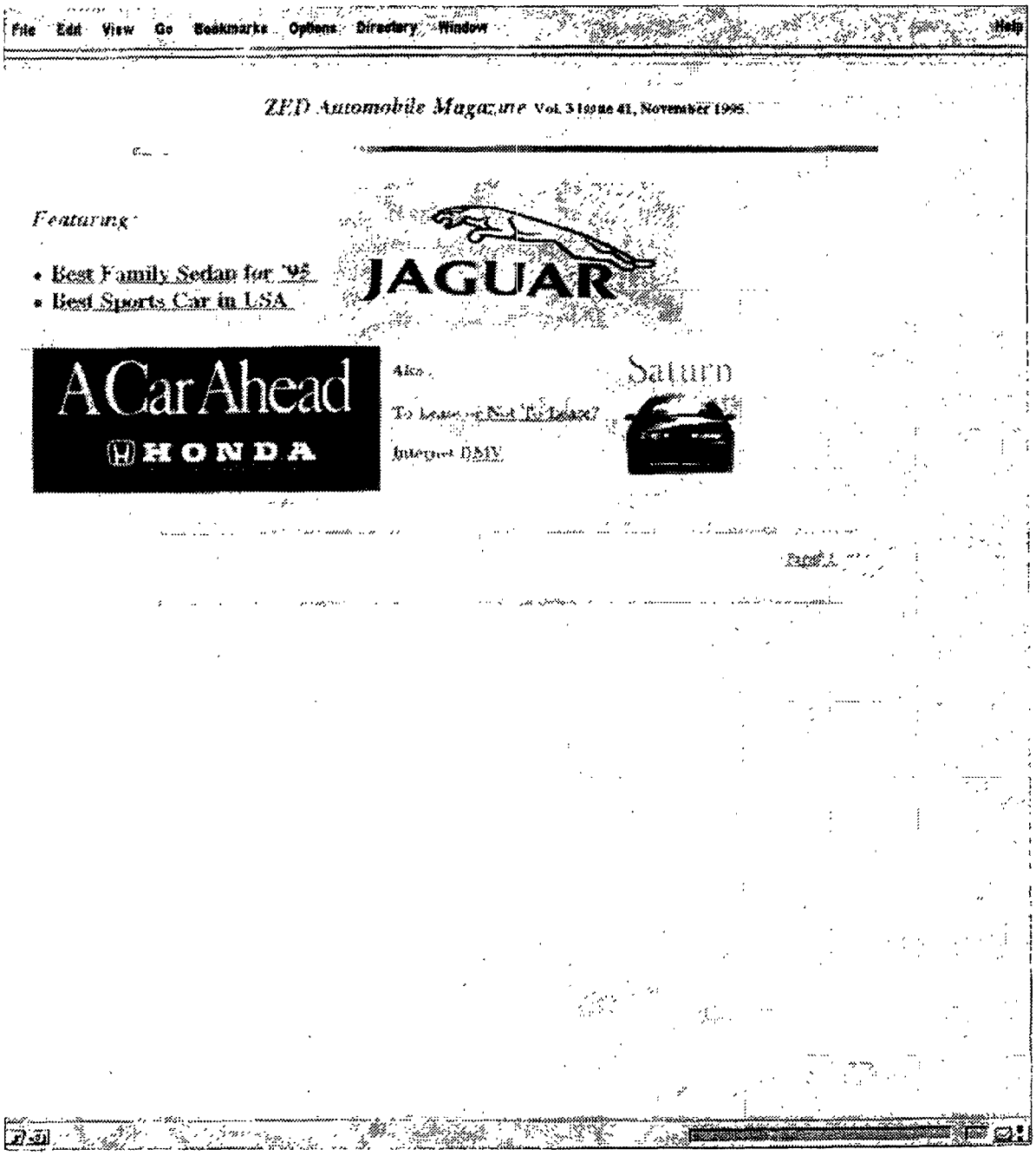


FIG. 13A


File Edit View Go Bookmarks Options Directory Window Help
ZD Automobile Magazine Vol 3 No 41, November 1995
Featuring:
• Best Family Sedan for '95
• Best Sports Car in USA
JAGUAR
A Car Ahead
HONDA
Also,
Saturn

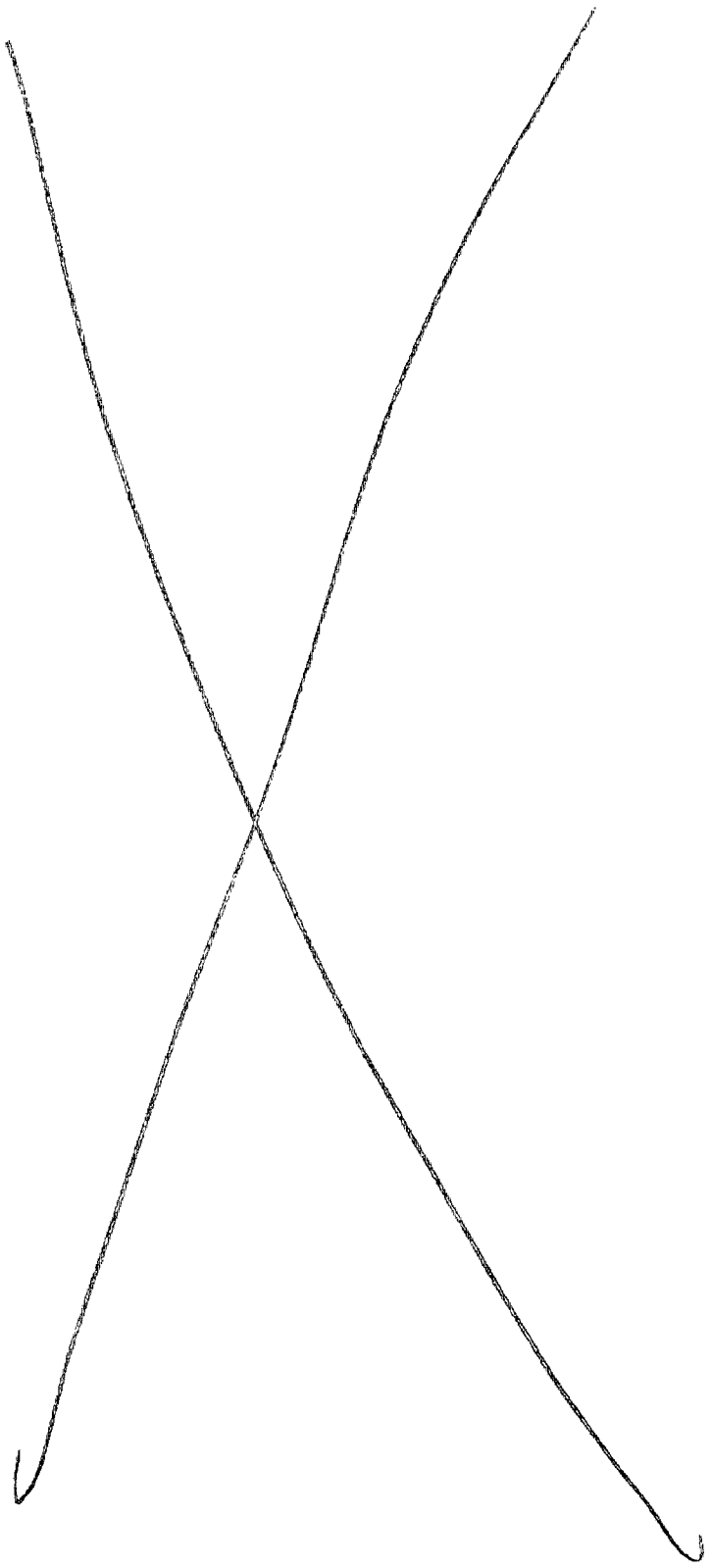
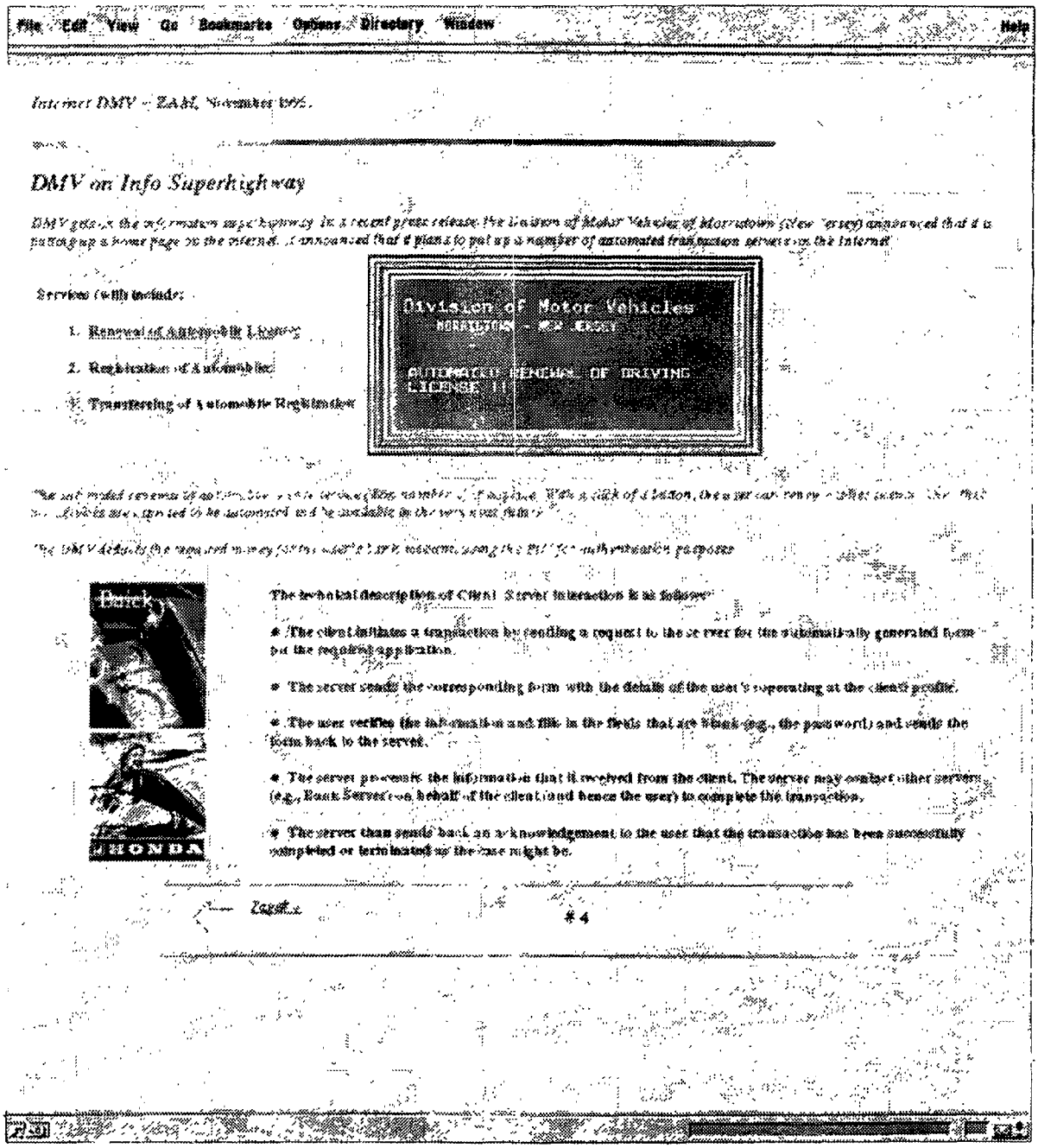


FIG. 13B


File Edit View Go Bookmarks Options Directory Window Help
Internet DMV - ZAAL
DMV on Info Superhighway
Services will include:
1. Renewal of Automobile Licenses
2. Registration of Automobiles
3. Transferring of Automobile Registration
Division of Motor Vehicles
AUTOMATIC RENEWAL OF DRIVING LICENSES !!
#4

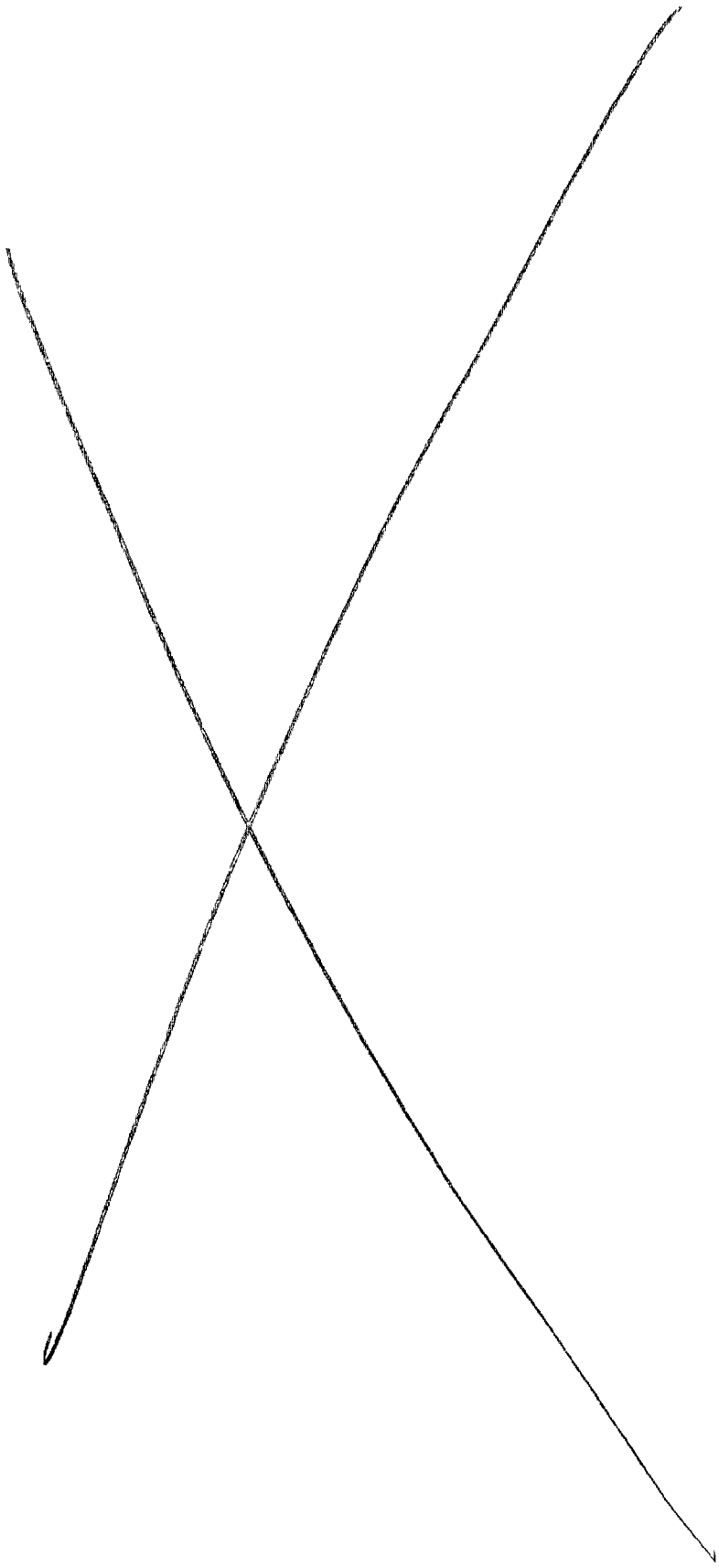
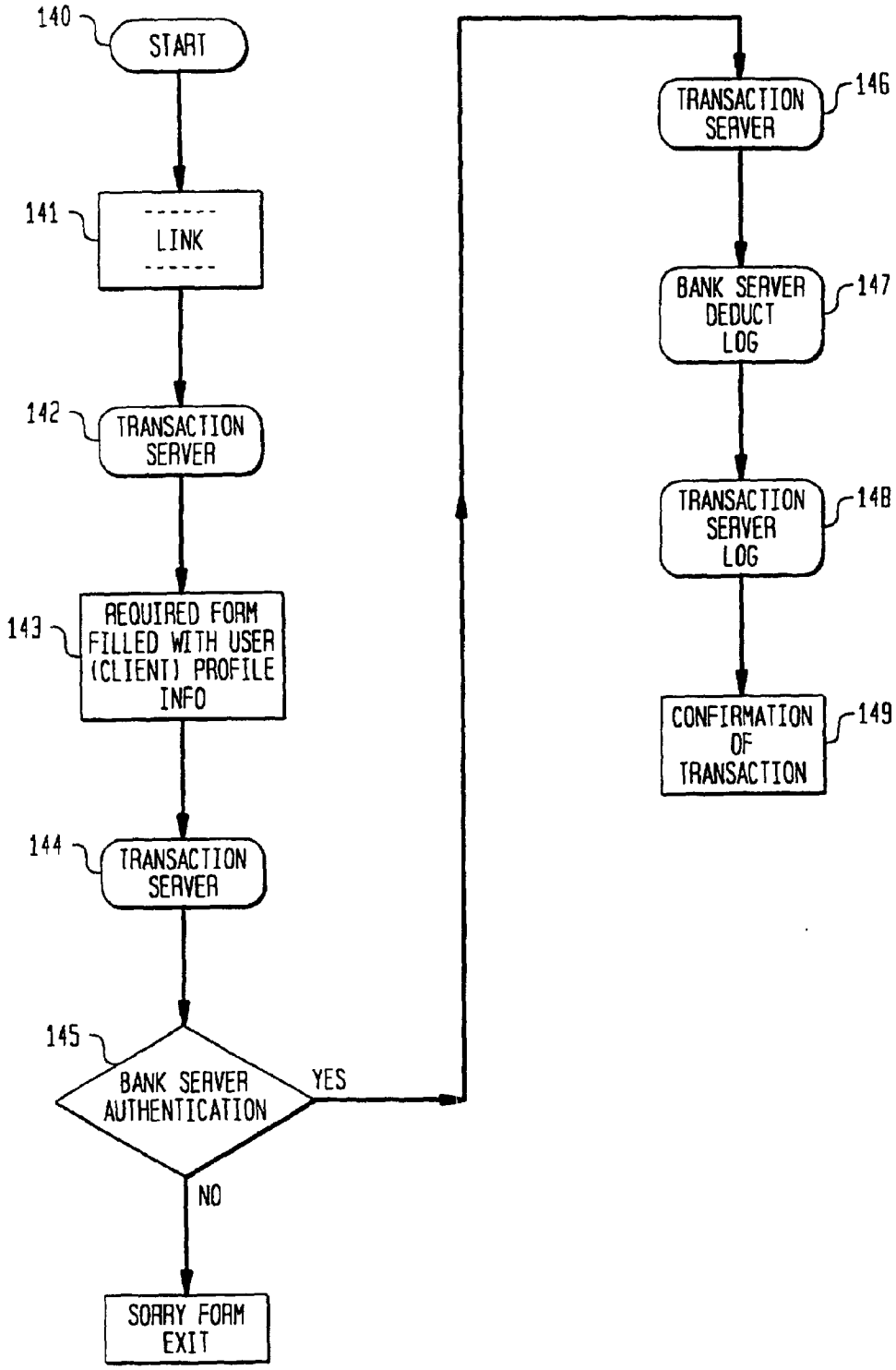


FIG. 14


140
START
141
LINK
142
TRANSACTION SERVER
143
REQUIRED FORM FILLED WITH USER (CLIENT) PROFILE INFO
144
TRANSACTION SERVER
145
BANK SERVER AUTHENTICATION
YES
NO
SORRY FORM EXIT
146
TRANSACTION SERVER
147
BANK SERVER DEDUCT LOG
148
TRANSACTION SERVER LOG
149
CONFIRMATION OF TRANSACTION

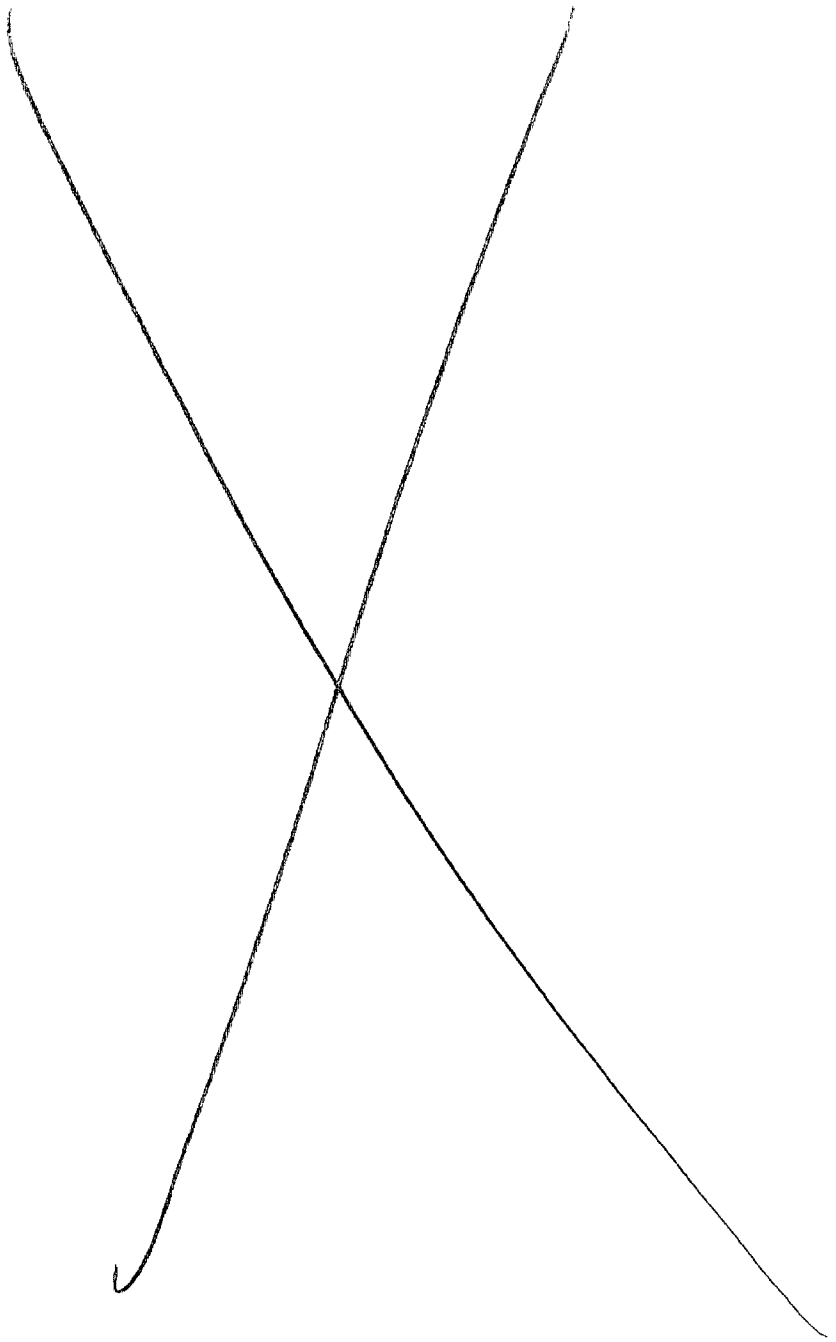
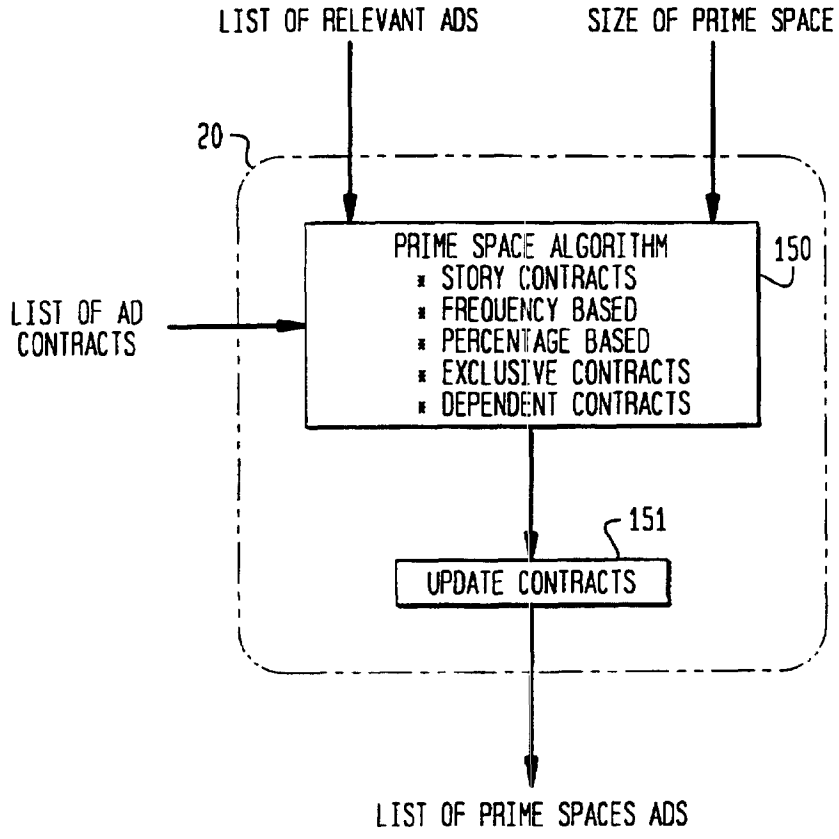
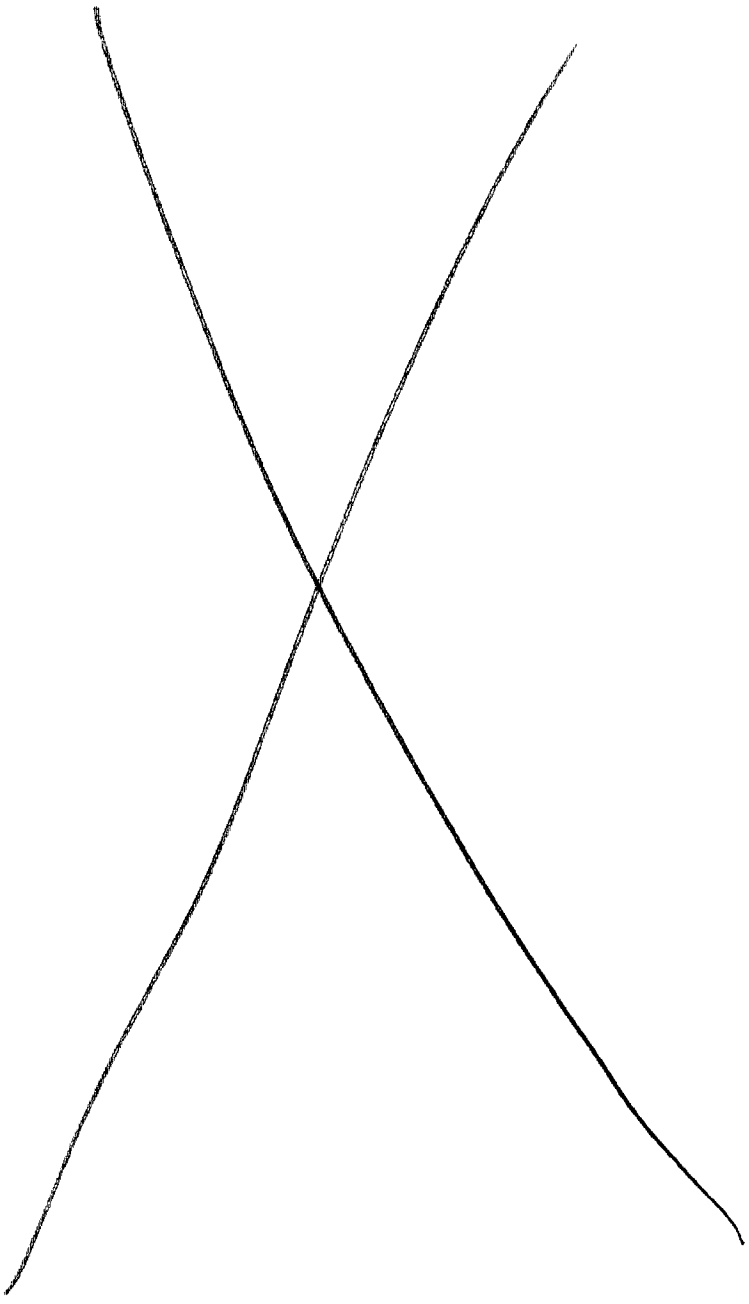


FIG. 15


LIST OF RELEVANT ADS
SIZE OF PRIME SPACE
20
PRIME SPACE ALGORITHM
150
STORY CONTRACTS
FREQUENCY BASED
PERCENTAGE BASED
EXCLUSIVE CONTRACTS
DEPENDENT CONTRACTS
LIST OF AD CONTRACTS
151
UPDATE CONTRACTS
LIST OF PRIME SPACES ADS



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US96/19509

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G06F 151:00/00, 153:00/00
US CL : 395/226, 227, 214
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 395/226, 227, 214

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, DIALOG

C. DOCUMENTS CONSIDERED TO BE RELEVANT

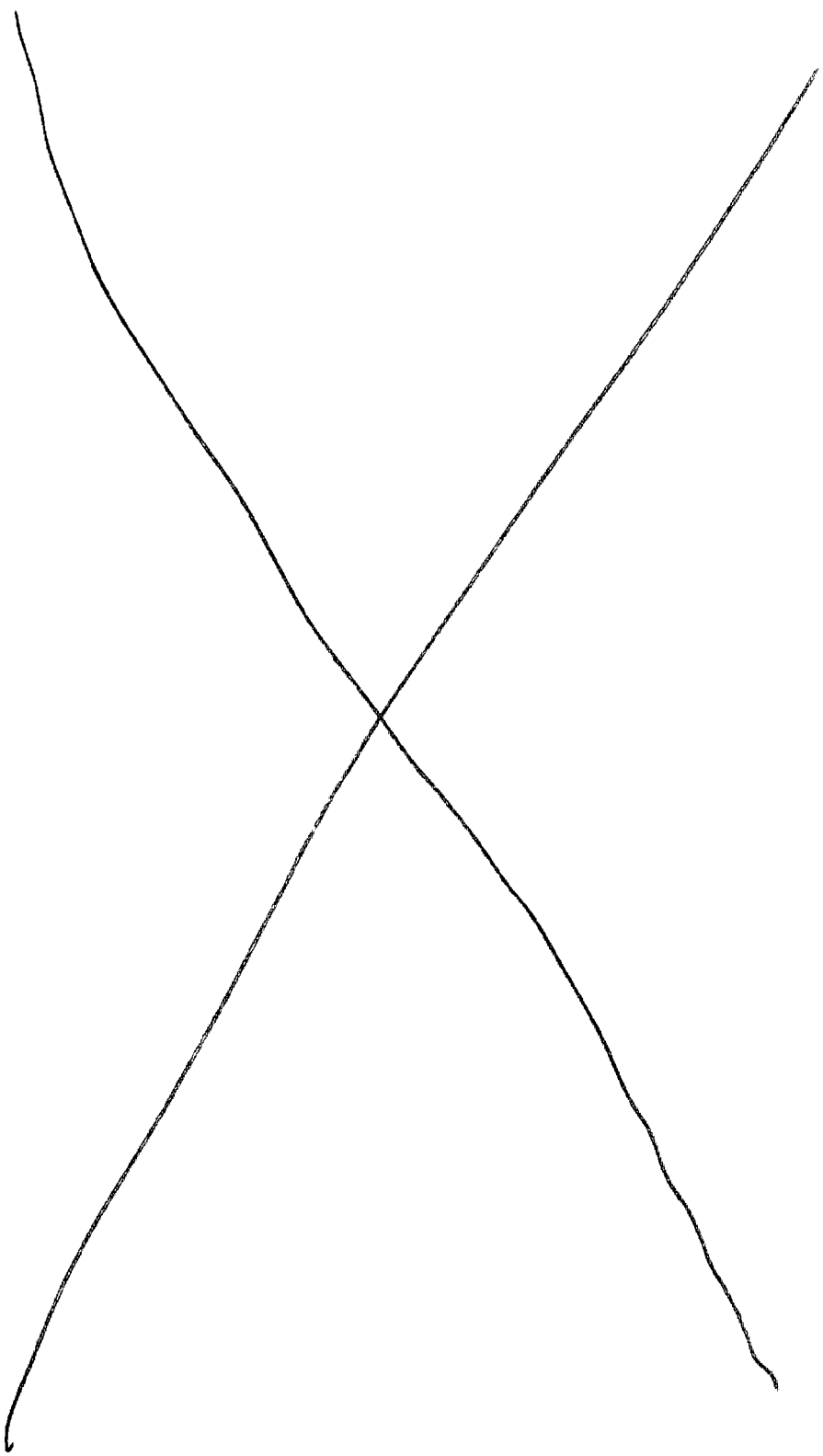
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,283,731 (Lalonde et al.) 01 February 1994, Figs 1-3, 7-9, col. 3, line 42 to col. 4, line 54, col. 12, line 40 to col. 14, line 17.	1-5, 7-11
A	US 5,412,416 (Nemirofsky) 02 May 1995, figs. 1-3, abstact	1-11
A	US 5,448,625 (Lederman) 05 September 1995, figs 1-6, cols. 2-6.	1-11
Y	ONLINE International Command Chart, U.S. Systems, 1985-1986 Edition, See page 6.	6
A,P	APTEX announces SelectCast..., M2 Presswire, M2 Communications, December 5, 1996.	1-11

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be part of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search 06 FEBRUARY 1997	Date of mailing of the international search report 07 MAR 1997
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer GAIL HAYES Telephone No. (703) 305-9711

Form PCT/ISA/210 (second sheet)(July 1992)*



Electronic Acknowledgement Receipt

EFS ID:	4747186
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	John A. Dragseth/Leslie Smith
Filer Authorized By:	John A. Dragseth
Attorney Docket Number:	16113-206001 / GP-968-00-
Receipt Date:	06-FEB-2009
Filing Date:	29-DEC-2006
Time Stamp:	12:01:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		16113-0206001-IDS.pdf	366574 c27603dcd66e5a7647ffe21467c8e4097d97ab5e	yes	5

	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Information Disclosure Statement Letter		1	3	
	Information Disclosure Statement (IDS) Filed (SB/08)		4	5	
Warnings:					
Information:					
2	Foreign Reference	B1Naqvi.pdf	3694831 b1b1903b14fccec0a416eea9319b8f3b30afe41a	no	96
Warnings:					
Information:					
3	NPL Documents	C1AdForceManual.pdf	11410028 52eea9c9af60fa2a67c3c9c0bb7ef2c5e5f3b3a5	no	285
Warnings:					
Information:					
4	NPL Documents	C2AdForceSEC.pdf	706250 388c763a86b2cf68cc6441d30028b5c6ea34c433	no	9
Warnings:					
Information:					
5	NPL Documents	C3AdKnowledgeCampaign.pdf	1019253 5373455a477736b127ab30f482e32c164738bacf	no	23
Warnings:					
Information:					
6	NPL Documents	C4MarketMatchPlanner.pdf	692303 21c903903450b3e3237a313dd63c6f078a8e34f2	no	26
Warnings:					
Information:					
7	NPL Documents	C5AdStar.pdf	601551 513fc33e219c027661c41d737ca378765605d7da	no	43
Warnings:					
Information:					
8	NPL Documents	C6AdManagerPro.pdf	12934007 2a827eff78fb4bd4a2cd86ec84a6a6683e462da0	no	226
Warnings:					
Information:					

9	NPL Documents	C7ClassManager.pdf	3690870 491f640070f45424e9c1e5a7cabac3621eb3bd7c	no	157
Warnings:					
Information:					
10	NPL Documents	C8BusinessWire.pdf	191029 2fd1878e4fc38d9f8b18c5bfc2952033b5218a3e	no	2
Warnings:					
Information:					
11	NPL Documents	C9AaddzzBrochure.pdf	1196867 754315c9c13d5a1c4ae7b81495253084cfe6ca59	no	6
Warnings:					
Information:					
12	NPL Documents	C11ZeffPart1of3.pdf	17286148 a4c2e3709e5aa566e804f96a76b762894895f45f	no	130
Warnings:					
Information:					
13	NPL Documents	C11ZeffPart2of3.pdf	17695092 1d96e36b3492a99dcc4deca77b9608859de1b955	no	130
Warnings:					
Information:					
14	NPL Documents	C11ZeffPart3of3.pdf	19233213 7980abe70cf92249bd6c123a4e6bc7090d36ffa0	no	180
Warnings:					
Information:					
15	NPL Documents	C12DedrickInteractiveElectronicAdv.pdf	915463 07e8dbfd295a4a8ab883568bb2a334e4f7007a2b	no	12
Warnings:					
Information:					
16	NPL Documents	C13DedrickConsumptionModel.pdf	7279867 eb6ab88db67df40590da6a04f29b649cf769a2ac	no	9
Warnings:					
Information:					
17	NPL Documents	C14ReexamRequest025patent.pdf	2695018 0cebb1bd9aa35e117bf3d1aabab808e14fbf7bdd	no	85
Warnings:					
Information:					

18	NPL Documents	C15ReexamRequest045patent.pdf	3180750 23553532f3b77dfd29f5b900e84c42218e79d875	no	54
Warnings:					
Information:					
19	NPL Documents	C16ReexamRequest059patent.pdf	2322461 7bc9336f8406982c36f62e07d4612832f67313df	no	81
Warnings:					
Information:					
20	NPL Documents	C10AaddzzWebsite.pdf	2863603 bcb809c191ea870bdc6288215596fe53e1782cc6	no	42
Warnings:					
Information:					
21	NPL Documents	C17ReexamRequest587patent.pdf	5959768 0017e3450adf21a6a6e41bf424a2b41aa027a9de	no	85
Warnings:					
Information:					
			Total Files Size (in bytes):	115934946	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 2616
Serial No.	: 11/618,506	Examiner	: Unknown
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Please consider the references listed on the enclosed PTO-1449 form. Foreign patent documents and non-patent literature are enclosed; cited U.S. patents and patent application publications will be provided on request. A copy of a communication from a foreign patent office in a counterpart application is also enclosed.

This statement is being filed before the receipt of a first Office Action on the merits. Apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: July 17 2008

/ Sushil Shrinivasan L0368 /
Sushil Shrinivasan
Reg. No. L0368

PTO Customer No. 26192
Fish & Richardson P.C.

Telephone: (202) 783-5070
Facsimile: (877) 769-7945

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-0206001	Application No. 11/618,506
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit 2616

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
	AL	KR2003-0076545	9/26/2003	Korea			Abstract	
	AM	KR2001-0035449	5/7/2001	Korea			Abstract	
	AN	KR2000-0064105	11/6/2000	Korea				X
	AO	KR2002-0068682	8/28/2002	Korea			Abstract	
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AQ	
	AR	
	AS	
	AT	

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

METHOD AND SYSTEM FOR ADVERTISING COMMUNITY KEYWORD ON INTERNET COMMUNITY SERVICE

Publication number:	KR20030076545
Publication date:	2003-09-26
Inventor:	YOON WI HUN (KR)
Applicant:	FREECHAL INC (KR)
Classification:	
- International:	(IPC1-7): G06F17/60
- European:	
Application number:	KR20030062208 20030905
Priority number(s):	KR20030062208 20030905

Report a data error here

Abstract of **KR20030076545**

PURPOSE: A method and a system for advertising a community keyword on an Internet community service are provided to display an AD(ADvertisement) related to a community on a community web page providing the community service. CONSTITUTION: A user interface(1001) receives the selection of a representative keyword and the first AD data from an advertiser. An AD database(1002) manages the representative keyword related to the community and the first AD data matched with the representative keyword. An AD data searching part(1003) searches the representative keyword related to the community from the AD database(1002) and searches the AD data matched with the searched representative keyword if a user connects to the community web page. A display controlling part(1004) displays the searched AD data on the community web page.

Data supplied from the ***esp@cenet*** database - Worldwide

(19)대한민국특허청(KR)
(12) 공개특허공보(A)

(51) 。Int. Cl.[7]
G06F 17/60B0

(11) 공개번호 특2003-0076545
(43) 공개일자 2003년09월26일

(21) 출원번호 10-2003-0062208
(22) 출원일자 2003년09월05일

(71) 출원인 주식회사 프리챌
서울 강남구 도곡1동 949-1

(72) 발명자 윤위훈
경기도성남시분당구이매동이매한신아파트212동2402호

(74) 대리인 송영건

심사청구 : 있음

(54) 인터넷 커뮤니티 서비스에서의 커뮤니티 키워드 광고 방법및 시스템

요약

본 발명은 인터넷을 이용한 광고 방법에 관한 것으로, 더욱 상세하게는 인터넷 상에서 커뮤니티 서비스를 제공하는 커뮤니티 웹 페이지에 커뮤니티와 연관된 광고 데이터를 디스플레이 할 수 있는 커뮤니티 키워드 광고 방법 및 시스템에 관한 것이다.

본 발명에 따른 커뮤니티 키워드 광고 방법은 소정의 커뮤니티 데이터베이스에 커뮤니티와 연관된 대표 키워드를 유지하는 단계, 소정의 광고 데이터베이스에 대표 키워드에 대응하는 광고 데이터를 유지하는 단계, 사용자가 상기 커뮤니티를 제공하는 커뮤니티 웹 페이지에 접속한 경우 상기 커뮤니티 데이터베이스 중에서 상기 커뮤니티와 연관된 대표 키워드를 검색하는 단계, 상기 광고 데이터베이스 중에서 상기 검색된 대표 키워드에 대응하는 광고 데이터를 검색하는 단계, 및 상기 커뮤니티 웹 페이지 상에 상기 광고 데이터를 디스플레이 하도록 하는 단계를 포함하는 것을 특징으로 한다.

본 발명에 따르면, 커뮤니티를 이용하여 사용자의 타게팅이 가능한 광고 방법을 제공함으로써 광고 효과를 극대화 할 수 있고, 상기 커뮤니티를 이용하여 수익 창출이 가능해 진다는 효과가 있다.

대표도

도 2

색인어

광고, 커뮤니티, 키워드, 평가.

명세서

도면의 간단한 설명

도 1은 종래기술에 따른 키워드 검색 광고 방법을 설명하기 위한 도면.

도 2는 본 발명의 일실시예에 따른 커뮤니티 키워드 광고 방법을 도시한 흐름도.

도 3은 본 발명의 일실시예에 있어서, 커뮤니티 데이터베이스에 저장되는 커뮤니티 정보 및 대표 키워드의 일례를 도시한 도면.

도 4는 본 발명의 일실시예에 있어서, 카테고리 검색 방법을 이용하는 경우 광고주에게 제공되는 그래픽 인터페이스의 일례를 도시한 도면.

도 5는 본 발명의 일실시예에 있어서, 광고 신청 웹 페이지에 제공되는 참고 자료의 일례를 도시한 도면.

도 6은 본 발명의 일실시예에 따라 광고 신청을 하는 광고주에게 제공되는 인터페이스의 일례를 도시한 도면.

도 7은 본 발명의 일실시예에 따라 수집된 평가 자료의 일례를 도시한 도면.

도 8은 본 발명의 또 다른 실시예에 따른 커뮤니티 키워드 광고 방법을 도시한 흐름도.

도 9는 본 발명의 또 다른 실시예에 따라 상기 광고 신청을 하는 광고주에게 제공되는 인터페이스의 일례를 도시한 도면.

도 10은 본 발명의 또 다른 실시예에 따른 커뮤니티 키워드 광고 시스템을 도시한 블록도.

도 11은 본 발명의 커뮤니티 키워드 검색 시스템에 사용될 수 있는 범용 컴퓨터 시스템의 내부 블록도.

<도면의 주요 부분에 대한 부호의 설명>

1000 : 커뮤니티 키워드 광고 시스템

1001 : 사용자 인터페이스 1002 : 광고 데이터베이스

1003 : 광고 데이터 검색부 1004 : 디스플레이 제어부

1005 : 회원 데이터베이스 1006 : 회원 검색부

발명의 상세한 설명

발명의 목적

발명이 속하는 기술 및 그 분야의 종래기술

본 발명은 인터넷을 이용한 광고 방법에 관한 것으로, 더욱 상세하게는 인터넷 상에서 커뮤니티 서비스를 제공하는 커뮤니티 웹 페이지에 커뮤니티와 연관된 광고 데이터를 디스플레이 할 수 있는 커뮤니티 키워드 광고 방법 및 시스템에 관한 것이다.

인터넷이 보편화되고 인터넷 사용 인구가 증가하면서 인터넷 사용자를 대상으로 하는 인터넷을 이용한 다양한 광고 방법이 등장하고 있다. 인터넷을 이용한 종래의 광고 방법 중 가장 일반적이고 가장 먼저 적용된 광고 방법은 배너(banner) 광고 또는 팝업(pop-up) 광고이다.

배너는 광고를 싣고자 하는 웹 페이지의 일정한 위치에 디스플레이 되고 광고 데이터를 포함하는 그래픽 이미지이다. 이러한 배너를 이용한 광고를 배너 광고라고 하며, 보통 미리 정해진 규격에 따라 Animated GIF 파일 등을 이용하여 그래픽 이미지를 디스플레이 하는 방법이 사용된다. 상기 웹 페이지의 관리자는 상기 배너가 사용자들에게 노출된 회수 또는 일정 기간 동안 배너 그래픽이 상기 사용자의 단말기로 다운로드 된 회수를 카운트하여 광고주에게 제공함으로써 배너 광고의 효과를 짐작할 수 있도록 한다.

팝업은 사용자가 소정의 웹 페이지에 접속했을 때, 상기 웹 페이지와는 별도로 상기 사용자에게 제공되는 작은 창 형태의 웹 페이지를 의미한다. 상기 웹 페이지의 관리자는 상기 사용자가 상기 웹 페이지에 접속하는 경우 팝업이 자동

적으로 나타나도록 하거나 상기 웹 페이지의 소정 위치를 마우스 등으로 선택하면 팝업이 나타나도록 하거나, 또는 상기 웹 페이지에 접속한 후 소정 시간이 경과하면 팝업이 자동적으로 나타나도록 하는 등 다양한 방식으로 팝업이 생성되도록 설정할 수 있다. 팝업 광고는 상기 팝업에 광고 내용을 실어서 상기 사용자에게 제공하는 광고 방법이다.

또한, 근래에는 인터넷 상의 키워드 검색 광고 방법이 등장하여, 키워드 검색 광고를 이용하는 광고주가 증가하고 있는 추세이다. 도 1은 종래 기술에 따른 키워드 검색 광고 방법을 설명하기 위해 도시한 도면이다.

사용자가 검색 서비스를 제공하는 검색 시스템에 접속하여 상기 검색 시스템이 제공하는 웹 페이지의 검색어 입력창(101)에 검색하고자 하는 검색어(도 1에서는 '특허')를 입력하고 검색 버튼(102)을 클릭하면, 검색 엔진은 상기 검색어에 대한 검색을 수행하여 검색 결과를 상기 웹 페이지 상에 디스플레이 한다.

이때, 소정의 검색어에 대응하는 광고 데이터(인터넷 주소 및 상기 인터넷 주소와 연관된 소개 정보)가 데이터베이스에 유지되어 있으며, 상기 검색 엔진은 상기 검색어('특허')에 대응하는 인터넷 주소가 상기 데이터베이스에 유지되어 있는지 여부를 검색한다.

상기 검색 결과 상기 검색어에 대응하는 인터넷 주소가 존재하는 경우, 상기 검색 시스템은 상기 검색된 인터넷 주소 및 상기 인터넷 주소와 연관된 소개 정보를 다른 검색 결과와는 다른 디스플레이 방법에 의해 사용자에게 쉽고 빠르게 인식할 수 있도록 디스플레이 한다.

예를 들면, 상기 검색 시스템은 도 1의 도면 부호(103)과 같이 다른 검색 결과(사이트(site) 검색 결과(104), 카테고리 검색 결과(105) 등)보다 상위의 위치에 다른 검색 결과와는 다른 색 또는 글씨체를 사용하여 상기 광고 데이터를 디스플레이 한다.

이와 같은 키워드 검색 광고 방법은 소정의 검색어(키워드)에 관심이 있는 사용자에게 상기 키워드와 연관된 광고를 제공할 수 있다는 점에서 광고를 제공 받는 사용자의 타게팅(targeting)을 할 수 있다. 광고주 입장에서는 불특정한 사용자보다는 잠재적인 구매력이 있는 사용자에게 선별적으로 광고 데이터를 제공하고 싶어하기 때문에 광고 데이터를 제공 받는 사용자를 선별하여 광고하기 위한 광고 방법이 필요하다.

한편, 인터넷을 통하여 직업, 학교, 취미 등 관심 분야가 동일한 사용자들이 서로 모여 의사소통을 할 수 있도록 하는 커뮤니티 서비스가 제공되고 있다. 일반적인 커뮤니티 시스템은 사용자들이 커뮤니티 활동을 할 수 있는 커뮤니티 웹 페이지를 제공하고, 소정의 커뮤니티를 검색할 수 있는 검색 엔진을 제공한다. 이와 같은 인터넷 상의 커뮤니티는 사용자들이 간단하게 커뮤니티를 생성할 수 있는 인터페이스가 마련되어 있고, 관심 분야가 동일 유사한 사용자들이 밀집해서 활동하고, 규모가 큰 커뮤니티는 회원수가 수만, 수십만에 달하며, 회원들이 공동으로 특정 물품을 구매하거나 상기 커뮤니티 내에서 추천하는 물품에 대한 판매율이 증가하는 등 커뮤니티의 영향력이 점점 증가하고 있다.

그러나, 현재의 커뮤니티 서비스에는 상기 커뮤니티 서비스 제공자가 직접적으로 수익을 얻을 수 있는 방법이 존재하지 않고(과금을 할 대상 또는 과금을 수행하기에 적합한 단계가 존재하지 않음), 상기 커뮤니티 서비스 제공자는 단지 고정적인 사용자 수를 유지하기 위한 수단으로서 커뮤니티 서비스를 제공하는 경향이 컸다.

따라서, 커뮤니티 서비스가 성숙하고 커뮤니티의 영향력도 증가함에 따라 커뮤니티 서비스 제공자는 상기 커뮤니티를 적극적으로 이용하면서도 커뮤니티 사용자의 거부감을 최소화할 수 있는 수익 모델이 필요하게 되었다.

발명이 이루고자 하는 기술적 과제

본 발명은 상기와 같은 종래 기술을 개선하기 위하여 안출된 것으로서, 커뮤니티 서비스를 제공하는 커뮤니티 웹 페이지에 상기 커뮤니티와 연관된 광고를 디스플레이 할 수 있는 커뮤니티 키워드 광고 방법 및 시스템을 제공하는 것을 목적으로 한다.

본 발명은 커뮤니티와 연관된 광고 데이터를 상기 커뮤니티 웹 페이지에 디스플레이 함으로써 사용자의 타게팅이 가능하고 광고주가 광고를 했을 때의 기대 효과가 큰 커뮤니티 키워드 광고 방법 및 시스템을 제공하는 것을 또 다른 목적으로 한다.

또한, 본 발명은 사용자와 연관된 사용자 정보에 이용하여 일정 조건에 해당하는 사용자에게만 광고 데이터를 제공함으로써 사용자의 타게팅이 가능하고 광고주가 광고를 했을 때의 기대 효과가 큰 커뮤니티 키워드 광고 방법 및 시스템을 제공하는 것을 또 다른 목적으로 한다.

또한, 본 발명은 상기 커뮤니티 웹 페이지에 사용자를 타게팅할 수 있는 광고를 하고자 하는 광고주에게 과금을 함으로써 커뮤니티를 이용하여 수익을 창출할 수 있는 커뮤니티 키워드 광고 방법 및 시스템을 제공하는 것을 또 다른 목적으로 한다.

발명의 구성 및 작용

상기의 목적을 이루고 종래기술의 문제점을 해결하기 위하여, 본 발명에 따른 커뮤니티 키워드 광고 방법은 소정의 커뮤니티 데이터베이스에 커뮤니티와 연관된 대표 키워드를 유지하는 단계, 소정의 광고 데이터베이스에 대표 키워드에 대응 하는 광고 데이터를 유지하는 단계, 사용자가 상기 커뮤니티를 제공하는 커뮤니티 웹 페이지에 접속한 경우 상기 커뮤니티 데이터베이스 중에서 상기 커뮤니티와 연관된 대표 키워드를 검색하는 단계, 상기 광고 데이터베이스 중에서 상기 검색된 대표 키워드에 대응하는 광고 데이터를 검색하는 단계, 및 상기 커뮤니티 웹 페이지 상에 상기 광고 데이터를 디스플레이 하도록 하는 단계를 포함한다.

또한, 본 발명은 소정의 회원 데이터베이스에 소정의 회원 인증 절차를 통해 가입된 회원과 연관된 회원 정보를 유지하는 단계, 광고주로부터 소정의 조건 및 광고 데이터를 입력 받는 단계, 상기 회원 정보에 기초하여 상기 조건에 해당하는 회원을 검색하는 단계, 소정의 광고 데이터베이스에 상기 검색된 회원과 연관하여 상기 광고 데이터를 저장하는 단계, 및 상기 검색된 회원이 커뮤니티를 제공하는 커뮤니티 웹 페이지에 접속한 경우, 상기 광고 데이터를 상기 커뮤니티 웹 페이지 상에 디스플레이 하도록 하는 단계를 포함한다.

또한, 본 발명은 광고주로부터 대표 키워드의 선택 및 제1 광고 데이터를 입력 받기 위한 사용자 인터페이스, 커뮤니티와 연관하여 대표 키워드 및 상기 대표 키워드에 대응하는 상기 제1 광고 데이터를 유지하기 위한 광고 데이터베이스, 사용자가 상기 커뮤니티를 제공하는 커뮤니티 웹 페이지에 접속한 경우, 상기 광고 데이터베이스 중에서 상기 커뮤니티와 연관된 대표 키워드를 검색하고 상기 검색된 대표 키워드에 대응하는 광고 데이터를 검색하기 위한 광고 데이터 검색부, 및 상기 커뮤니티 웹 페이지 상에 상기 검색된 광고 데이터를 디스플레이 하기 위한 디스플레이 제어부를 포함한다.

이하에서는 첨부된 도면을 참조하여 본 발명의 실시예를 구체적으로 설명한다. 본 명세서에서 사용되는 '커뮤니티'라는 용어는 소정의 웹 페이지(이하에서는 '커뮤니티 웹 페이지'라고 지칭함)를 통하여 사용자들이 커뮤니케이션을 할 수 있는 온라인 상의 공간 자체, 또는 상기 사용자들의 모임을 의미하는 용어로서 포괄적으로 사용되며, 1인 매체라고도 불리는 블로그를 포함하는 개념이다.

도 2는 본 발명의 일실시예에 따른 커뮤니티 키워드 광고 방법을 도시한 흐름도이다.

단계(201)에서 커뮤니티 데이터베이스에는 커뮤니티와 연관된 커뮤니티 정보가 유지되고, 키워드 데이터베이스에는 대표 키워드가 유지된다.

단계(202)에서 커뮤니티 정보로부터 소정의 키워드가 추출된다. 상기 커뮤니티 정보는 상기 커뮤니티의 이름, 소개글, 상기 커뮤니티가 속하는 카테고리, 상기 커뮤니티와 연관된 학교 정보, 상기 커뮤니티와 연관된 직업 정보 또는 상기 커뮤니티와 연관된 지역 정보를 포함한다.

상기 하나 이상의 커뮤니티 정보에 기초하여 상기 키워드가 추출되며, 상기 커뮤니티 정보에 소정의 가중치를 부여하여 상기 키워드를 추출하는 방법이 사용될 수 있다. 예를 들면, 커뮤니티의 성격을 잘 나타내는 이름, 소개글, 카테고리 등은 타 커뮤니티 정보에 비해 높은 가중치가 부여된다.

이하, 커뮤니티 정보로부터 소정의 키워드를 추출하는 단계(202)를 예시적으로 설명한다. 예를 들면, 상기 커뮤니티가 '보라 인라인'이라는 인라인 스케이팅(Inline Skating) 관련 커뮤니티인 경우, 상기 커뮤니티의 이름은 '보라 인라인'이고, 상기 커뮤니티의 소개글은 '인라인을 타기 위한 조그마한 모임입니다. 인라인을 매개로 만든 모임이지만 운동 후 각종 엔터테인먼트를 통해 회원 간의 친목과 우정을 돈독히 하는 모임을 만들어 갑시다'이고, 상기 커뮤니티가 속하는 카테고리는 '스포츠/레저>>레포츠'이며, 지역 정보는 '서울'이다. 이때, 상기 '보라 인라인' 커뮤니티와 연관된 학교 정보 또는 직업 정보는 없다. 이때, 형태소 분석 방법 등 다양한 종래의 키워드 추출 방법을 사용하여 상기 커뮤니티와 연관된 키워드가 추출될 수 있으며, 상술한 바와 같은 커뮤니티 정보로부터는 '인라인'이라는 키워드가 추출될 가능성이 높다.

단계(203)에서 상기 키워드 데이터베이스 중에서 상기 추출된 키워드와 매칭되는 대표 키워드를 검색한다. 본 예에서는 상기 검색된 대표 키워드 역시 '인라인'이다. 따라서, 상기 '보라 인라인' 커뮤니티와 연관된 대표 키워드는 '인라인'으로 결정된다.

이때, 상기 추출된 키워드와 정확히 일치하는 대표 키워드가 검색되지 않는 경우에도, 소정의 알고리즘에 따라 상기 추출된 키워드와 유사 키워드라고 인정되는 대표 키워드를 상기 추출된 키워드와 매칭시킨다.

또한, 본 발명의 또 다른 실시예에 따르면, 커뮤니티와 연관된 대표 키워드는 상기 커뮤니티에 속해 있는 사용자 중 운영자 등이 요청한 대표 키워드를 상기 커뮤니티와 연관된 대표 키워드로 결정한다. 상기 운영자가 요청한 대표 키워드는 바로 상기 커뮤니티와 연관된 대표 키워드로 결정될 수도 있고, 본 실시예에의 실 시자의 심사를 통과한 경우에만 대표 키워드로 결정될 수도 있다.

단계(204)에서 상기 결정된 대표 키워드는 상기 커뮤니티와 연관하여 상기 커뮤니티 데이터베이스에 저장된다. 도 3은 상기 커뮤니티 데이터베이스에 저장되는 커뮤니티 정보 및 상술한 바와 같이 결정된 대표 키워드의 일례를 도시한 도면이다. 커뮤니티 정보 중 회원 수에 대해서는 후술한다.

단계(205)에서 광고주로부터 대표 키워드의 선택을 입력 받는다. 광고주가 대표 키워드를 선택할 수 있도록 다양한 대표 키워드 제공 방법이 사용될 수 있다.

본 발명의 일실시예에 따른 커뮤니티 키워드 광고 방법은 키워드 검색 방법을 이용하여 광고주가 대표 키워드를 선택할 수 있도록 한다. 예를 들면, 인라인 스케이트의 판매 광고를 하고자 하는 광고주는 소정의 광고 신청 웹 페이지의 키워드 입력창에 '인라인 스케이트'라고 입력하면, 상기 키워드 데이터베이스 중에서 상기 '인라인 스케이트'와 연관된 대표 키워드를 검색하여 상기 광고 신청 웹 페이지를 통해 상기 광고주에게 그 검색 결과를 제공한다. 예를 들어, 상기 검색된 대표 키워드가 '인라인'인 경우 상기 광고주는 '인라인'을 대표 키워드로 선택할 수 있다.

또한, 본 발명의 또 다른 실시예에 따른 커뮤니티 키워드 광고 방법은 카테고리 검색 방법을 이용하여 광고주가 대표 키워드를 선택할 수 있도록 한다. 도 4a 및 도 4b는 카테고리 검색 방법을 이용하는 경우 광고주에게 제공되는 그래픽 인터페이스의 일례를 도시한 도면이다. 도 4a와 같은 카테고리를 제공 받은 광고주는 상기 카테고리 중 자신이 원하는 광고 대상과 연관되어 있다고 생각하는 카테 고리를 선택한다. 예를 들어, 상기 광고주가 '패션/화장품/명품'이라는 카테고리(401)를 선택한 경우 도 4b에 도시한 바와 같이 대표 키워드의 선택을 입력할 수 있는 팝업이 생성되도록 할 수 있다.

키워드 검색 방법 또는 카테고리 검색 방법에 따라 대표 키워드를 제공 받는 광고주는 하나 이상의 대표 키워드를 선택할 수 있다. 이때, 상기 광고주가 상기 대표 키워드에 대한 결제를 수행하기 전에, 상기 광고주가 각각의 대표 키워드를 이용하여 광고를 수행하는 경우 그 광고 효과를 가늠해볼 수 있도록 도 5에 도시한 바와 같은 참고 자료가 상기 광고 신청 웹 페이지를 통해 제공된다.

또한, 상기 광고주는 본 실시예에의 실시자가 제공하는 전화 예약 서비스를 이용하여 전화 상담원과의 통화를 통해 대표 키워드를 주문하고 광고와 관련된 컨설팅을 제공 받을 수도 있다.

도 5에 도시한 '포함 키워드'는 상술한 바와 같이 커뮤니티 정보로부터 추출된 키워드를 의미한다. 각 커뮤니티에 가입한 회원들은 상기 커뮤니티의 공통 관심사를 공유한다고 할 수 있다. 따라서, 종래에는 특정 분야에 관심을 갖는 사용자를 선별하는 것이 용이하지 않았으나, 이미 구축되어 있는 커뮤니티를 이용하는 경우에는 사용자들의 관심사를 용이하게 파악할 수 있다는 장점이 있다. 예를 들어, 도 4b에서 대표 키워드로 '명품'을 선택한 광고주는 도 5에 도시한 바와 같은 참고 자료에 기초하여 광고주는 적어도 2,093개의 커뮤니티를 통해서 명품에 대한 관심이 많은 적어도 709,198명의 회원에게 명품과 관련된 광고를 하는 것이 가능하다는 것을 파악할 수 있다. 커뮤니티 키워드 광고를 하고자 하는 자는 상기 참고 자료를 언제라도 조회할 수 있다.

대표 키워드를 선택한 광고주는 상기 대표 키워드에 대응하는 광고 데이터를 입력한다. 상기 광고주에게 도 6a에 도시한 바와 같은 인터페이스가 제공될 수 있다. 상기 광고주는 '광고 종류 선택' 버튼(601)을 이용하여 커뮤니티 웹 페이지에서 광고 데이터가 디스플레이 되는 방식을 선택하고, '고객 정보 입력' 창에 해당하는 정보를 입력한다. 본 명세서에서 사용되는 '커뮤니티 웹 페이지'라는 용어는 커뮤니티와 연관되어 커뮤니티 서비스를 제공할 수 있는 웹 페이지를 의미한다.

광고 종류 선택 버튼(601)를 클릭하면 상기 광고주에게 도 6b에 도시한 바와 같은 광고 종류에 대한 안내 페이지가 제공된다. 상기 광고주가 상기 안내 페이지에서의 해당 광고 종류를 클릭하면 광고 종류가 선택되도록 하는 사용자 인터페이스가 제공될 수 있다.

또한 광고주는 '광고 내용 업로드' 버튼(602)를 선택하여 광고 데이터(텍스트, 이미지, 플래쉬 등의 다양한 광고 데이터)를 업로드 한다. 상기 광고 데이터는 임시 저장 공간에 저장되어 있다가 결제가 완료되면 광고 데이터베이스에 저장된다.

이와 같이 광고주가 대표 키워드, 고객 정보, 광고의 종류, 광고 데이터 등 광고 신청을 위해 커뮤니티 키워드 광고 방법의 실시자가 요구하는 모든 정보를 입력한 경우, 소정의 과금 시스템에 의해 상기 광고주에 대한 결제가 수행된다.

상기 광고주가 결제해야 하는 판매 가격은 대표 키워드의 수와 종류, 상기 대표 키워드와 연관된 커뮤니티의 수와 상기 커뮤니티에 가입되어 있는 총 회원 수, 상술한 바와 같이 선택한 광고의 종류 등에 따라 차등적으로 적용될 수 있다. 또한, 이전까지 해당 대표 키워드에 대응하는 광고 데이터가 사용자들에게 노출된 회수 및 상기 광고 데이터가 선택된 회수 등이 판매 가격에 반영될 수 있으며, 이에 대한 자세한 설명은 후술한다.

단계(206)에서 상기 과금 시스템에 상기 선택된 대표 키워드에 대한 결제가 수행되었는지 여부를 조회하고, 상기 조회 결과 상기 결제가 수행된 경우 단계(207)에서 상기 입력된 광고 데이터는 광고 데이터베이스에 상기 대표 키워드와 대응하여 저장된다.

사용자가 상기 대표 키워드와 연관된 커뮤니티 웹 페이지에 접속하는 경우, 단계(210)에서 상기 커뮤니티 웹 페이지에 상기 커뮤니티와 연관된 광고 데이터가 디스플레이 된다.

상기 커뮤니티와 연관된 광고 데이터는, 상기 커뮤니티 데이터베이스 중에서 상기 커뮤니티와 연관된 대표 키워드를 검색하고(단계(208)), 상기 광고 데이터베이스 중에서 상기 검색된 대표 키워드에 대응하는 광고 데이터를 검색하여(단계(209)) 얻어진 광고 데이터이다.

단계(208 및 209)는 상기 사용자가 상기 커뮤니티 웹 페이지를 접속할 때마다 상기 커뮤니티 데이터베이스 및 상기 광고 데이터베이스를 실시간으로 조회하는 방식으로 수행될 수 있다. 또한, 본 발명의 또 다른 실시예에 따르면, 단계(208 및 209)를 미리 수행하고 그 결과 얻어진 상기 광고 데이터를 상기 커뮤니티 웹 페이지의 내부 소스에 스크립트 형태로 삽입하여 상기 사용자가 접속할 때마다 상기 광고 데이터가 디스플레이 되도록 하는 방식이 사용될 수 있다.

또한, 본 발명의 또 다른 실시예에 따르면, 단계(208 및 209)를 수행하여 그 결과 얻어진 상기 광고 데이터는 상기 사용자 단말기에 쿠키 등 임의의 형태로 저장되어 있고 상기 사용자가 상기 커뮤니티 웹 페이지에 접속할 때마다 상기 커뮤니티 웹 페이지에 디스플레이 되도록 하는 방식이 사용될 수 있다.

이와 같이 상기 커뮤니티와 연관된 광고 데이터를 검색하여 상기 커뮤니티 웹 페이지에 디스플레이 하기 위한 다양한 알고리즘이 사용될 수 있으며, 특히 스크립트 형태로 삽입되는 방식이나 사용자 단말기에 저장해 두는 방식을 사용하는 경우에는 본 실시예를 실시하기 위한 시스템에서의 부하가 크지 않다는 장점이 있다.

상기 광고 데이터는 도 6b와 관련하여 상기 광고주가 선택한 위치에 디스플레이 된다.

한편, 상기 사용자가 접속한 커뮤니티 웹 페이지에 해당하는 커뮤니티와 연관된 대표 키워드가 하나 이상인 경우, 예를 들면, '명품', '버버리'라는 대표 키워드를 갖는 커뮤니티이고, 단계(208)에서의 검색 결과 상기 '명품'에 대응하는 제1 광고 데이터와 상기 '버버리'에 대응하는 제2 광고 데이터가 검색된 경우이다.

이와 같이 하나 이상의 광고 데이터가 검색되는 경우, 상기 제1 광고 데이터 및 상기 제2 광고 데이터에 대해 설정된 광고 종류가 서로 상이한 경우에는 상기 광고 종류에 따라 각각 상기 커뮤니티 웹 페이지의 소정 위치에 상기 제1 및 제2 광고 데이터가 디스플레이 된다. 예를 들면, 도 6a와 관련하여, 상기 제1 광고 데 이터는 상기 커뮤니티 웹 페이지의 '메뉴 영역'에 배너 광고로서 디스플레이 되고, 상기 제2 광고 데이터는 상기 커뮤니티 웹 페이지의 '게시판 내'에 텍스트 광고로서 디스플레이 된다.

그런데, 상기 검색된 광고 데이터에 대한 광고 종류가 동일하게 설정되어 있는 경우(예를 들면, 상기 제1 광고 데이터 및 상기 제2 광고 데이터는 모두 메뉴 영역 배너 광고로 설정되어 있는 경우), 소정의 기준에 따라 선택된 광고 데이터가 상기 커뮤니티 웹 페이지에 디스플레이 된다. 상기 소정의 기준으로서는 i) 상기 제1 광고 데이터 및 상기 제2 상기 광고 데이터를 임의의 순서 또는 회수에 따라 디스플레이 하도록 하는 것, 또는 ii) 상기 제1 광고 데이터 및 상기 제2 광고 데이터에 가중치를 부여하고 상기 가중치에 따라 상기 커뮤니티 웹 페이지에 상기 제1 광고 데이터 및 상기 제2 광고 데이터가 디스플레이 되는 빈도를 결정하도록 하는 등 다양한 기준이 적용될 수 있다. 상기 가중치는 제1 광고 데이터에 대응하는 대표 키워드와 상기 제2 광고 데이터에 대응하는 대표 키워드의 판매 가격에 따라 결정된 가중치 또는 실시자가 설정한 가중치가 이용될 수 있다.

상기 광고 데이터는 일정 조건이 만족될 때까지 상기 커뮤니티 웹 페이지에 디스플레이 된다. 상기 조건이 만족되는 경우는 실시예에 따라, 상기 광고주가 신청한 광고 기간이 경과한 경우, 본 실시예에 따른 커뮤니티 키워드 광고 방법을 제공하는 실시자가 설정한 일정 기간이 경과한 경우, 상기 광고 데이터가 일정 회수 사용자에게 노출된 경우, 또는 상기 광고 데이터가 일정 회수 사용자로부터 선택된 경우 등 다양하게 설정할 수 있다.

상기 사용자는 사용자 단말기의 웹 브라우저에서 디스플레이 되는 상기 광고 데이터를 마우스 클릭 등으로 선택할 수 있다. 또한, 게시판 내에 텍스트 광고를 하는 경우에는 상기 게시판에서의 제목 형태의 광고 데이터를 선택하여 상기 제목에 해당하는 게시 내용이 사용자에게 제공된 경우 광고 데이터가 사용자로부터 선택되었다고 할 수 있다.

단계(211)에서 상기 광고 데이터를 상기 커뮤니티 웹 페이지에 디스플레이 한 경우의 광고 효과를 평가하기 위한 평가 자료가 산출된다. 상기 평가 자료로서 상기 커뮤니티 웹 페이지 상에서 상기 광고 데이터가 사용자에게 노출되는 회수, 상기 광고 데이터를 제공 받은 상기 사용자가 상기 광고 데이터를 선택하는 회수, 상기 광고 데이터를 제공 받은 사용자의 수, 또는 상기 광고 데이터가 상기 커뮤니티 웹 페이지에 디스플레이 된 기간이 사용될 수 있다.

상기 광고 데이터가 사용자에게 노출되는 회수는 동일한 사용자가 상기 광고 데이터를 반복적으로 제공 받는 경우에도 동일 사용자인지 여부와 관계없이 카운트 되므로, 실질적으로 상기 광고 데이터를 제공 받은 사용자가 몇 명인지 파악하기 위해 상기 광고 데이터를 제공 받은 사용자의 수를 평가 자료로서 사용한다. 이러한 구성은 상기 커뮤니티 웹 페이지에 접속할 수 있는 사용자가 로그인(login) 등의 사용자 인증 절차에 의해 인증된 사용자일 경우 상기 사용자와 연관되어 작성된 로그 파일을 참조하여 간단하게 구현 가능하다.

단계(212)에서 상기 평가 자료에 기초하여 상기 대표 키워드에 대한 판매 가격을 업데이트한다. 예를 들면, 상기 판매 가격을 업데이트 하기 위해 단계(211) 에서 도 7에 도시한 바와 같은 평가 자료를 수집하고 상기 데이터에 기초하여 판매 가격이 자동적으로 결정되도록 할 수 있다.

도 7은 평가 자료의 일례를 도시한 도면으로서, 상기 평가 자료에는 대표 키워드(701), 상기 대표 키워드에 대응하는 광고 데이터가 디스플레이 되는 커뮤니티의 수 및 상기 커뮤니티에 가입한 사용자의 수(702), 상기 광고 데이터가 사용자에게 노출된 회수(703), 상기 광고 데이터가 선택된 회수(704), 또는 상기 광고 데이터를 제공 받은 사용자 수(705)가 포함된다.

각각의 대표 키워드에 대응하는 광고 데이터와 연관된 커뮤니티의 수 및 상기 커뮤니티에 가입한 사용자의 수 역시 다른 데이터와 마찬가지로 변동 가능한 값으로서 소정 주기 별로 상기 커뮤니티의 수 및 상기 가입한 사용자의 수를 재조사하는 등 정확한 평가 자료로서 기능할 수 있도록 업데이트를 수행하는 것이 바람직하다.

상기 평가 자료에 기초하여 (702 내지 705)에 대응하는 수치가 큰 대표 키워드(701)에 대한 판매 가격을 그렇지 않은 대표 키워드(701)에 비해 높게 설정할 수 있다.

또한, 본 발명의 또 다른 실시예에 따르면, 구매하려는 광고주가 많은 대표 키워드에 대해서는 고정적인 판매 가격을 설정하지 않고, 경매나 입찰 등의 방법으로 그 판매 가격이 결정되도록 한다.

단계(213)에서 상기 평가 자료가 소정의 평가 웹 페이지 상에서 디스플레이 된다. 이와 같은 구성을 통해 대표 키워드를 구매하려는 자에게는 상기 평가 자료 를 제공하여 대표 키워드에 대한 광고 효과를 가늠할 수 있도록 하고, 소정의 대표 키워드를 구매한 광고주에게는 자신의 광고 데이터나 어느 정도 사용자들에게 제공되었는지 여부를 판단할 수 있도록 한다. 또한, 소정의 대표 키워드를 구입한 광고주에게는 상기 대표 키워드와 연관된 평가 자료만이 제공되도록 할 수도 있다.

또한, 본 발명의 또 다른 실시예에 따르면, 상기 평가 자료는 상기 개별적인 커뮤니티 별 평가 자료를 더 포함하고, 단계(214)에서 상기 평가 자료 및 상기 커뮤니티 별 평가 자료로부터 상기 커뮤니티의 기여도를 평가한다. 예를 들면, 상기 광고 데이터를 제공 받은 사용자가 100명이고, 상기 사용자 중 제1 커뮤니티에 속하는 회원이 60명, 제2 커뮤니티에 속하는 회원이 30명, 기타 커뮤니티에 속하는 회원이 10명인 경우 상기 제1 커뮤니티가 광고 효과에 기여하는 바가 크다고 평가할 수 있다.

따라서, 본 실시예의 실시자는 상기 제1 커뮤니티에 속하는 회원에게 소정의 보상을 할 수 있다(단계(215)). 실시예에 따라 상기 커뮤니티에 대해 다양한 보상이 이루어질 수 있으며, 예를 들면, 커뮤니티 검색 시 상기 제1 커뮤니티와 연관된 검색어를 입력한 경우 검색 결과 중 상기 제1 커뮤니티가 상위에 위치하도록 하거나, 소정의 메인 페이지에 상기 제1 커뮤니티를 소개할 수 있는 공간을 부여하는 보상 방법, 또는 상기 제1 커뮤니티에 가입한 회원들에게는 소정의 사이버 머니(Cyber Money) 또는 아바타(Avata)나 게임 관련 아이템 등 사이버 아이템(Cyber Item)을 지급하는 보상 방법 등이 사용될 수 있다.

이와 같은 보상 과정을 통하여, 사용자들이 커뮤니티 활동에 적극적으로 활 동할 수 있는 동기를 부여하는 한편 상기 광고 데이터의 디스플레이에 따른 광고 효과가 증대된다는 효과가 있다.

또한, 본 실시예에서는 상기 광고주가 상기 대표 키워드를 선택하고 상기 대표 키워드에 대응하는 광고 데이터를 입력하는 구성을 중심으로 설명하였으나, 상기 광고 데이터베이스베이스에 유지되는 대표 키워드 및 광고 데이터는 상

기 대표 키워드를 갖는 커뮤니티에 속하는 운영자 등의 사용자가 입력한 데이터일 수도 있다. 이 경우에는 상기 운영자 등이 소정의 광고주로부터 광고를 수주하고 상기 커뮤니티 웹 페이지를 통해 수주한 광고 내용(광고 데이터)가 디스플레이 된다.

또한, 본 발명의 또 다른 실시예에 따르면, 상기 광고주는 대표 키워드 선택뿐만 아니라 상기 대표 키워드와 연관된 커뮤니티 중에서 하나 이상의 특정 커뮤니티의 선택을 더 입력한다. 이 경우에는 상기 광고 데이터베이스에는 상기 대표 키워드 및 상기 선택된 커뮤니티와 연관된 광고 데이터가 유지되며, 사용자가 상기 선택된 커뮤니티와 연관된 커뮤니티 웹 페이지에만 상기 광고 데이터가 디스플레이 된다. 즉, 동일한 대표 키워드와 연관된 커뮤니티라 하더라도 광고주가 선택한 커뮤니티에만 광고가 수행되도록 할 수 있다.

한편, 단계(201 내지 204)를 수행한 결과, 상기 커뮤니티 정보로부터 추출된 키워드와 매칭되는 대표 키워드가 존재하지 않는 경우에는 상술한 바와 같은 커뮤니티 키워드 광고 방법을 수행할 수 없으며, 본 발명의 또 다른 실시예에 따른 커뮤니티 키워드 광고 방법은 이러한 경우에 수행될 수 있는 별도의 구성을 포함한다. 이러한 별도의 구성은 상술한 단계(201 내지 213)와 병행하여 또는 독립적으 로 수행될 수 있다.

본 실시예에 따른 커뮤니티 키워드 광고 방법은 커뮤니티 웹 페이지에 광고 데이터가 디스플레이 되는 점은 상술한 실시예에서와 동일하지만, 상기 광고 데이터는 커뮤니티와 연관된 대표 키워드가 아닌 일정 조건에 해당하는 사용자와 연관되어 있다는 것에 특징이 있다.

도 8은 본 실시예에 따른 커뮤니티 키워드 광고 방법을 도시한 흐름도이다.

단계(801)에서 회원 데이터베이스에 회원과 연관된 회원 정보가 유지된다. 상기 회원은 커뮤니티 서비스를 제공 받기 위해 소정의 커뮤니티 시스템으로부터 회원 인증 절차를 통해 가입된 회원이다.

단계(802)에서 광고주로부터 소정의 조건을 입력 받는다. 도 9는 상기 광고주가 소정의 조건을 입력할 수 있도록 상기 광고주에게 제공되는 그래픽 인터페이스의 일례이다. 상기 광고주는 도 9에 도시한 바와 같은 조건 입력창을 이용하여 사용자에 대한 나이별 또는 성(性)별 조건을 입력할 수 있다.

상기 사용자와 연관된 조건에는 상기 나이 또는 성별 외에도, 상기 회원의 생일, 취미, 학교 정보, 직업 정보, 상기 회원과 연관된 지역 정보, 상기 회원이 가입한 커뮤니티 정보, 또는 상기 커뮤니티에서의 상기 사용자의 활동 정보 등이 포함되며, 상기 광고주가 상기 사용자와 연관된 조건을 입력하기 위해 도 9에 도시한 바와 유사한 방식의 인터페이스가 상기 광고주에게 제공될 수 있다.

단계(803)에서 상기 회원 데이터베이스에 저장되어 있는 회원 정보에 기초하여 상기 광고주로부터 입력된 조건에 해당하는 회원을 검색한다. 예를 들면, 상기 광고주가 '20대 후반'의 '여자'로서 '서울' 지역에 거주하는 회원을 조건으로서 입력한 경우 상기 커뮤니티 시스템에 가입된 회원 중 상기 조건에 해당하는 회원이 검색된다. 또한, 상기 광고주는 소정의 광고 데이터를 더 입력한다. 상기 광고 데이터를 입력하는 과정은 상술한 실시예에서 상세히 설명하였으므로 본 실시예에서는 그 자세한 설명은 생략한다.

단계(804)에서 소정의 과금 시스템에 상기 검색된 회원에 대응하는 결제가 수행되었는지 여부를 조회하고, 상기 조회 결과 상기 결제가 수행된 경우 단계(805)에서 광고 데이터베이스에 상기 검색된 회원과 연관하여 상기 입력된 광고 데이터를 저장한다.

상기 결제는 일정한 기간 단위로 이루어지거나, 상기 광고 데이터가 노출 또는 선택되는 회수 단위로 이루어질 수 있으며, 실시예에 따라 다양한 결제 방식이 적용될 수 있다.

단계(806)에서 상기 검색된 회원이 임의의 커뮤니티 웹 페이지에 접속한 경우, 상기 광고 데이터를 상기 커뮤니티 웹 페이지 상에 디스플레이 한다. 본 실시예에 따르면, 동일한 커뮤니티 웹 페이지라 하더라도, '20대 후반 서울 지역에 거주하는 여자' 회원이 접속한 경우와, '40 대 이후 남자'회원이 접속한 경우에 상기 커뮤니티 웹 페이지에 디스플레이 되는 광고 데이터를 서로 상이할 수 있다.

단계(806)은 상기 사용자와 연관된 광고 데이터를 상기 커뮤니티 웹 페이지에 디스플레이 하는 단계로서, 상기 광고 데이터는 상기 사용자가 상기 커뮤니티 웹 페이지에 접속할 때마다 상기 광고 데이터베이스를 실시간으로 참조하여 얻어질 수 있다. 또한, 본 발명의 또 다른 실시예에 따르면, 상기 광고 데이터는 상기 사용자 단말기의 저장 공간에 쿠키 등 임의의 형태로 저장되어 있고 상기 사용자가 상기 커뮤니티 웹 페이지에 접속할 때마다 상기 저장 공간으로부터 읽혀서 상기 커뮤니티 웹 페이지에 디스플레이 될 수도 있다.

이와 같이 소정 조건에 해당하는 회원을 기준으로 광고 데이터를 디스플레이 하는 방법과, 상술한 실시예에서 단계(2

01 내지 210)을 수행하여 소정의 대표 키워드와 연관된 커뮤니티를 기준으로 광고 데이터를 디스플레이 하는 방법은 복합적으로 실시될 수 있다.

예를 들면, 하나의 커뮤니티 웹 페이지에 i) 상기 커뮤니티와 연관된 대표 키워드에 대응하는 제1 광고 데이터 및 ii) 상기 커뮤니티 웹 페이지에 접속하는 소정 회원과 연관된 제2 광고 데이터가 디스플레이 되어야 하는 경우, 단계(210)에서의 복수 개의 광고 데이터가 검색된 경우에 준해 상기 제1 및 제2 광고 데이터를 디스플레이 할 수 있다. 즉, 회원이 상기 커뮤니티 웹 페이지에 접속할 때마다 랜덤(random)하게 상기 제1 및 제2 광고 데이터가 디스플레이 되도록 하거나, 소정의 비율로 상기 제1 광고 데이터와 상기 제2 광고 데이터가 번갈아 가며 디스플레이 되도록 할 수 있다. 상기 비율은 상기 광고주가 지불한 결제 금액에 기초하여 결정되거나, 본 실시예의 실시자의 설정에 따라 결정될 수 있다.

단계(807)에서 상기 디스플레이에 따른 광고 효과를 평가하기 위한 평가 자료를 산출한다. 상기 평가 자료는 상기 광고 데이터가 상기 회원에게 제공된 회수, 또는 상기 회원이 상기 광고 데이터를 선택(상기 광고 데이터를 선택하는 경우, 상기 광고 데이터와 관련된 소정의 페이지로 링크되는 것이 일반적임)한 회수 등을 포함한다.

단계(808)에서 상기 평가 자료는 소정의 평가 웹 페이지에 디스플레이 된다. 따라서, 소정의 조건을 구매한 상기 광고주 또는 상기 조건을 구매하여 광고를 하고자 하는 자는 상기 조건의 광고 효과를 가늠할 수 있게 된다.

단계(809)에서 상기 평가 자료에 기초하여 상기 회원의 기여도를 측정한다. 예를 들면, 상기 광고 데이터의 디스플레이 회수 및 상기 회원이 상기 광고 데이터를 제공 받은 회수에 기초하여 상기 회원의 기여도를 측정하고 단계(810)에서 상기 회원의 기여도가 일정 값 이상인 경우에는 상기 회원에게 소정의 사이버 머니 또는 소정의 사이버 아이템을 지급할 수 있다. 또한, 실시예에 따라 상기 일정 값 이상의 기여도를 갖는 회원 중에서도 그 기여도에 따라 차등적인 보상을 할 수도 있다.

또한, 본 발명은 상술한 각 실시예에 따른 커뮤니티 키워드 광고 방법을 실행하기 위한 프로그램을 기록한 기록 매체를 제공한다. 상기 컴퓨터 판독 가능 매체는 프로그램 명령, 데이터 파일, 데이터 구조 등을 단독으로 또는 조합하여 포함할 수 있다. 상기 매체는 본 발명을 위하여 특별히 설계되고 구성된 것들이거나 컴퓨터 소프트웨어 당업자에게 공지되어 사용 가능한 것일 수도 있다. 컴퓨터 판독 가능 기록 매체의 예에는 하드 디스크, 플로피 디스크 및 자기 테이프와 같은 자기 매체(magnetic media), CD-ROM, DVD와 같은 광기록 매체(optical media), 플롭티컬 디스크(floptical disk)와 같은 자기-광 매체(magneto-optical media), 및 롬(ROM), 램(RAM), 플래시 메모리 등과 같은 프로그램 명령을 저장하고 수행하도록 특별히 구성된 하드웨어 장치가 포함된다. 상기 매체는 프로그램 명령, 데이터 구조 등을 지정하는 신호를 전송하는 반송파를 포함하는 광 또는 금속선, 도파관 등의 전송 매체일 수도 있다. 프로그램 명령의 예에는 컴파일러에 의해 만들어지는 것과 같은 기계어 코드뿐만 아니라 인터프리터 등을 사용해서 컴퓨터에 의해서 실행될 수 있는 고급 언어 코드를 포함한다.

이하, 본 발명의 또 다른 실시예에 따른 커뮤니티 키워드 광고 시스템에 대해 설명한다.

도 10은 본 실시예에 따른 커뮤니티 키워드 광고 시스템을 도시한 블록도이다. 도면 부호(1100)은 광고주의 단말기를 의미하고, 도면 부호(1200)은 커뮤니티 웹 페이지에 접속하는 사용자의 단말기를 의미한다.

커뮤니티 키워드 광고 시스템(1000)은 사용자 인터페이스(1001), 광고 데이터베이스(1002), 광고 데이터 검색부(1003), 디스플레이 제어부(1004), 회원 데이터베이스(1005) 및 회원 검색부(1006)을 포함한다.

통신망(1200)을 커뮤니티 키워드 광고 서스템(1000)에 접속한 광고주는 사용자 인터페이스(1001)를 이용하여 대표 키워드를 선택한다. 커뮤니티 키워드 광고 시스템(1000)은 광고 데이터베이스(1002)에 커뮤니티와 연관하여 대표 키워드를 유지하고 있고, 사용자 인터페이스(1001)는 상기 유지되어 있는 대표 키워드를 상기 광고주에게 제시함으로써 상기 광고주가 대표 키워드를 선택할 수 있도록 한다. 상기 대표 키워드를 제시하기 위해 사용자 인터페이스(1001)는 키워드 검색 방법 또는 카테고리 검색 방법을 상기 광고주에게 제공할 수 있다.

또한, 상기 광고주는 사용자 인터페이스(1001)를 이용하여 소정의 제1 광고 데이터를 더 입력하며, 커뮤니티 키워드 광고 시스템(1000)은 소정의 결제 시스템(도시하지 않음)에 상기 광고주가 상기 대표 키워드에 대한 결제를 수행하였는지 여부를 문의하여 상기 결제가 수행된 경우에만 상기 제1 광고 데이터를 광고 데이터베이스(1002)에 저장한다.

광고 데이터베이스(1002)는 상술한 바와 같이 커뮤니티와 연관하여 대표 키워드를 유지하고 있고, 또한 상기 대표 키워드에 대응하여 상기 광고주가 입력한 상기 제1 광고 데이터를 더 유지한다.

사용자가 통신망(1200)을 통해 커뮤니티를 제공하는 커뮤니티 웹 페이지에 접속하는 경우, 광고 데이터 검색부(1003)는 광고 데이터베이스(1002) 중에서 상기 커뮤니티와 연관된 대표 키워드를 검색한다. 또한, 광고 데이터 검색부(10

03)는 상기 검색된 대표 키워드에 대응하는 제1 광고 데이터를 검색한다.

디스플레이 제어부(1004)는 상기 검색된 제1 광고 데이터를 포함하는 커뮤니티 웹 페이지가 사용자의 단말기(1200)에서 디스플레이 되도록 한다. 이와 같은 구성을 통해서 본 실시예에 따른 커뮤니티 키워드 광고 시스템(1000)은 사용자에게 커뮤니티와 연관된 광고를 할 수 있게 된다. 상기 커뮤니티 웹 페이지에 접속하는 사용자는 상기 커뮤니티의 회원 또는 상기 커뮤니티와 관련된 주제에 관심을 갖고 있는 사용자로서, 광고주는 상기 커뮤니티의 성격에 맞는 광고 데이터를 상기 사용자에게 제공함으로써 광고 효과를 극대화 할 수 있다.

따라서, 상기 커뮤니티의 성격에 맞는 대표 키워드를 유지하는 것이 중요하 며, 커뮤니티와 연관된 대표 키워드를 유지하는 구성에 대해서는 상술한 커뮤니티 키워드 광고 방법에서 자세히 설명하였으므로 본 실시예에서는 그 설명을 생략한다.

또한, 본 발명의 또 다른 실시예에 따르면, 커뮤니티 키워드 광고 시스템(1000)은 커뮤니티 웹 페이지를 이용하는 사용자별 광고 데이터를 제공한다. 이를 위해, 회원 데이터베이스(1005)는 소정의 회원 인증 절차를 통해 가입된 회원과 연관된 회원 정보를 유지한다. 상기 회원 정보는 상기 회원 인증 절차에서 사용자가 입력한 필수 또는 선택적 입력 사항으로부터 얻은 정보 또는 본 실시예의 실시자가 온라인 설문 조사 등으로 수집한 정보를 포함한다. 본 실시예에 있어서는, 상기 사용자는 상기 회원 인증 절차를 통해 인증된 회원을 의미한다.

사용자 인터페이스(1001)는 상기 광고주로부터 소정의 조건 및 상기 조건에 대응하는 제2 광고 데이터를 더 입력 받는다. 상기 소정의 조건에 대한 설명 및 상기 광고주가 상기 조건을 입력하는 과정에 대한 설명은 도 9와 관련하여 자세히 설명하였으므로 본 실시예에서는 생략한다.

회원 검색부(1006)는 회원 데이터베이스(1005) 중에서 상기 회원 정보에 기초하여 상기 조건에 해당하는 회원을 검색한다.

상기 입력된 제2 광고 데이터는 상기 검색된 회원과 연관하여 광고 데이터베이스(1002)에 더 저장된다. 커뮤니티 키워드 광고 시스템(1000)은 상기 결제 시스템에 상기 광고주가 상기 조건에 대한 결제를 수행하였는지 여부를 문의하여 상기 결제가 수행된 경우에만 상기 제2 광고 데이터를 광고 데이터베이스(1002)에 저장 하도록 할 수도 있다.

디스플레이 제어부(1004)는 상기 검색된 회원이 '임의의' 커뮤니티 웹 페이지에 접속한 경우 상기 제2 광고 데이터를 포함하는 상기 임의의 커뮤니티 웹 페이지가 사용자 단말기(1200)에서 디스플레이 되도록 한다.

상기 광고 데이터와 연관된 사용자가 접속했는지 여부를 판단하기 위해 디스플레이 제어부(1004)는 상기 사용자가 접속 시 입력한 로그인 정보(아이디 및 패스워드)에 기초하여 광고 데이터베이스(1002)를 참조하는 방식이 사용될 수 있다.

또한, 미리 상기 조건에 해당하는 사용자에게는 모두 일정한 코드를 부여하고 상기 사용자가 접속할 때마다 상기 코드가 부여된 사용자인지 여부를 판단하는 방식이 사용될 수도 있다.

본 실시예는 상기 제2 광고 데이터가 커뮤니티 웹 페이지에 디스플레이 되는 것은 상술한 실시예에서와 동일하지만, 상기 제2 광고 데이터는 소정의 커뮤니티 웹 페이지와 연관되어 있지 않으며, 상기 커뮤니티 웹 페이지에 접속하는 상기 사용자와 연관되어 있다는 점에 특징이 있다.

또한, 본 발명의 또 다른 실시예에 따르면, 상술한 커뮤니티와 연관된 제1 광고 데이터를 디스플레이 하는 구성과, 사용자와 연관된 제2 광고 데이터를 디스플레이 하는 구성은 독립적으로 실시될 수도 있고, 복합적으로 수행될 수도 있다.

예를 들면, 실시예에 따라 광고 데이터 검색부(1003)이 상기 사용자가 접속한 커뮤니티 웹 페이지가 제공하는 커뮤니티와 연관된 대표 키워드를 검색하지 못 했을 경우, 상기 제2 광고 데이터가 상기 커뮤니티 웹 페이지에 디스플레이 되도록 할 수 있다.

도 11은 상술한 본 발명의 커뮤니티 키워드 검색 시스템에 사용될 수 있는 범용 컴퓨터 시스템의 내부 블록도이다.

컴퓨터 시스템(1100)은 램(RAM: Random Access Memory)(1102)과 롬(ROM: Read Only Memory)(1103)을 포함하는 주기억장치와 연결되는 하나 이상의 프로세서(1101)를 포함한다. 프로세서(1101)는 중앙처리장치(CPU)로 불리기도 한다. 본 기술분야에서 널리 알려져 있는 바와 같이, 롬(1103)은 데이터(data)와 명령(instruction)을 단방향성으로 CPU에 전달하는 역할을 하며, 램(1102)은 통상적으로 데이터와 명령을 양방향성으로 전달하는 데 사용된다. 램(1102) 및 롬(1103)은 컴퓨터 판독 가능 매체의 어떠한 적절한 형태를 포함할 수 있다. 대용량 기억장치(Mass Sto

rage)(1104)는 양방향성으로 프로세서(1101)와 연결되어 추가적인 데이터 저장 능력을 제공하며, 상기된 컴퓨터 판독 가능 기록 매체 중 어떠한 것일 수 있다. 대용량 기억장치(1104)는 프로그램, 데이터 등을 저장하는데 사용되며, 통상적으로 주기억장치보다 속도가 느린 하드디스크와 같은 보조기억장치이다. CD 롬(1106)과 같은 특정 대용량 기억장치가 사용될 수도 있다. 프로세서(1101)는 비디오 모니터, 트랙볼, 마우스, 키보드, 마이크로폰, 터치스크린 형 디스플레이, 카드 판독기, 자기 또는 종이 테이프 판독기, 음성 또는 필기 인식기, 조이스틱, 또는 기타 공지된 컴퓨터 입출력장치와 같은 하나 이상의 입출력 인터페이스(1105)와 연결된다. 마지막으로, 프로세서(1101)는 네트워크 인터페이스(1107)를 통하여 유선 또는 무선 통신 네트워크에 연결될 수 있다. 이러한 네트워크 연결을 통하여 상기된 방법의 절차를 수행할 수 있다. 상기된 장치 및 도구는 컴퓨터 하드웨어 및 소프트웨어 기술 분야의 당업자에게 잘 알려져 있다.

상기된 하드웨어 장치는 본 발명의 동작을 수행하기 위해 하나 이상의 소프트웨어 모듈로서 작동하도록 구성될 수 있다.

발명의 효과

본 발명에 따르면, 커뮤니티 서비스를 제공하는 커뮤니티 웹 페이지에 상기 커뮤니티와 연관된 광고를 디스플레이 할 수 있는 커뮤니티 키워드 광고 방법 및 시스템이 제공된다.

또한, 본 발명에 따르면, 커뮤니티와 연관된 광고 데이터를 상기 커뮤니티 웹 페이지에 디스플레이 함으로써 사용자의 타게팅이 가능하고 광고주가 광고를 했을 때의 기대 효과가 큰 커뮤니티 키워드 광고 방법 및 시스템이 제공된다.

또한, 본 발명에 따르면, 사용자와 연관된 사용자 정보에 이용하여 일정 조건에 해당하는 사용자에게만 광고 데이터를 제공함으로써 사용자의 타게팅이 가능하고 광고주가 광고를 했을 때의 기대 효과가 큰 커뮤니티 키워드 광고 방법 및 시스템이 제공된다.

또한, 본 발명에 따르면, 상기 커뮤니티 웹 페이지에 사용자를 타게팅할 수 있는 광고를 하고자 하는 광고주에게 과금을 함으로써 커뮤니티를 이용하여 수익을 창출할 수 있는 커뮤니티 키워드 광고 방법 및 시스템이 제공된다.

이상과 같이 본 발명은 비록 한정된 실시예와 도면에 의해 설명되었으나, 본 발명은 상기의 실시예에 한정되는 것은 아니며, 이는 본 발명이 속하는 분야에서 통상의 지식을 가진 자라면 이러한 기재로부터 다양한 수정 및 변형이 가능하다. 따라서, 본 발명 사상은 아래에 기재된 특허청구범위에 의해서만 파악되어야 하고, 이의 균등 또는 등가적 변형 모두는 본 발명 사상의 범주에 속한다고 할 것이다.

(57) 청구의 범위

청구항 1.

인터넷 커뮤니티 서비스에서의 커뮤니티 키워드 광고 방법에 있어서,

소정의 커뮤니티 데이터베이스에 커뮤니티와 연관된 대표 키워드를 유지하는 단계;

소정의 광고 데이터베이스에 대표 키워드에 대응하는 광고 데이터를 유지하는 단계;

사용자가 상기 커뮤니티를 제공하는 커뮤니티 웹 페이지에 접속한 경우 상기 커뮤니티 웹 페이지 상에 상기 커뮤니티와 연관된 광고 데이터를 디스플레이 하도록 하는 단계

를 포함하고,

상기 광고 데이터를 디스플레이 하도록 하는 상기 단계는,

상기 커뮤니티 데이터베이스 중에서 상기 커뮤니티와 연관된 대표 키워드를 검색하는 단계;

상기 광고 데이터베이스 중에서 상기 검색된 대표 키워드에 대응하는 광고 데이터를 검색하는 단계; 및

상기 검색된 광고 데이터를 상기 커뮤니티와 연관된 광고 데이터로 결정하는 단계

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 2.
제1항에 있어서,

상기 커뮤니티 정보는 상기 커뮤니티의 이름, 소개글, 상기 커뮤니티에 가입된 회원의 수, 소정의 평가 방법에 의해 산출된 상기 가입된 회원의 참여도, 상기 커뮤니티가 속하는 카테고리, 상기 커뮤니티와 연관된 학교 정보, 상기 커뮤니티와 연관된 직업 정보 및 상기 커뮤니티와 연관된 지역 정보 중 어느 하나 이상을 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 3.
제1항에 있어서,

상기 커뮤니티 데이터베이스에 커뮤니티와 연관된 대표 키워드를 유지하는 상기 단계는,

상기 커뮤니티 데이터베이스에 커뮤니티 정보를 유지하는 단계;

소정의 키워드 데이터베이스에 대표 키워드를 유지하는 단계;

상기 커뮤니티 정보로부터 소정의 키워드를 추출하는 단계;

상기 키워드 데이터베이스 중에서 상기 키워드와 매칭(Matching)되는 대표 키워드를 검색하는 단계; 및

상기 검색된 대표 키워드를 상기 커뮤니티와 연관하여 상기 커뮤니티 데이터베이스에 저장하는 단계

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 4.
제1항에 있어서,

상기 광고 데이터베이스에 대표 키워드에 대응하는 광고 데이터를 유지하는 상기 단계는,

소정의 광고 신청 웹 페이지를 통하여 광고주로부터 대표 키워드의 선택 및 광고 데이터를 입력 받는 단계; 및

상기 광고 데이터베이스에 상기 선택된 대표 키워드와 대응하여 상기 입력된 광고 데이터를 저장하는 단계

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 5.
제4항에 있어서,

상기 광고 데이터베이스에 상기 선택된 대표 키워드에 대응하여 상기 입력된 광고 데이터를 저장하는 상기 단계는,

소정의 과금 시스템에 상기 대표 키워드에 대한 결제가 수행되었는지 여부를 조회하는 단계; 및

상기 조회 결과 상기 결제가 수행된 경우, 상기 광고 데이터베이스에 상기 선택된 대표 키워드에 대응하여 상기 입력된 광고 데이터를 저장하는 단계

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 6.
제1항에 있어서,

상기 커뮤니티 웹 페이지 상에 상기 커뮤니티와 연관된 상기 광고 데이터를 디스플레이 하도록 하는 상기 단계는,

상기 커뮤니티와 연관된 대표 키워드가 복수 개이고, 상기 대표 키워드에 대응하는 광고 데이터가 복수 개 검색된 경우,

상기 커뮤니티 웹 페이지에 상기 복수 개의 광고 데이터를 상기 커뮤니티 웹 페이지의 서로 다른 위치에 각각 디스플레이 하도록 하는 단계; 또는

상기 커뮤니티 웹 페이지에 상기 복수 개의 광고 데이터 중 소정의 기준에 따라 선택된 광고 데이터를 디스플레이 하도록 하는 단계

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 7.
제1항에 있어서,

상기 디스플레이에 따른 광고 효과를 평가하기 위한 평가 자료를 산출하는 단계; 및

상기 산출된 평가 자료에 기초하여 상기 대표 키워드에 대한 판매 가격을 업데이트하는 단계를 더 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 8.
제1항에 있어서,

상기 디스플레이에 따른 광고 효과를 평가하기 위한 평가 자료를 산출하는 단계; 및

상기 산출된 평가 자료에 기초하여 상기 커뮤니티의 기여도를 측정하는 단계;

상기 기여도에 기초하여 상기 커뮤니티 또는 상기 커뮤니티에 가입한 회원에 게 소정의 보상을 하는 단계

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 9.
제8항에 있어서,

상기 기여도에 기초하여 상기 커뮤니티 또는 상기 커뮤니티에 가입한 상기 회원에게 소정의 보상을 하는 상기 단계는

,

상기 커뮤니티에 대한 안내 데이터를 소정의 웹 페이지에 디스플레이 하는 단계; 또는

상기 회원에게 소정의 사이버 머니 또는 소정의 사이버 아이템을 지급하는 단계

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 방법.

청구항 10.
제8항에 있어서,

상기 평가 자료는 상기 광고 데이터가 디스플레이 되는 커뮤니티 웹 페이지의 수, 상기 커뮤니티 웹 페이지 상에서 상기 광고 데이터가 상기 사용자에게 노출되는 회수, 상기 광고 데이터를 제공 받은 상기 사용자가 상기 광고 데이터를 선택하는 회수, 상기 광고 데이터를 제공 받은 사용자의 수 및 상기 광고 데이터가 상기 커뮤니티 웹 페이지에 디스플레이 되는 기간 중 어느 하나 이상을 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 11.
인터넷 커뮤니티 서비스에서의 커뮤니티 키워드 광고 방법에 있어서,

소정의 회원 데이터베이스에 소정의 회원 인증 절차를 통해 가입된 회원과 연관된 회원 정보를 유지하는 단계;

광고주로부터 소정의 조건 및 광고 데이터를 입력 받는 단계;

상기 회원 정보에 기초하여 상기 조건에 해당하는 회원을 검색하는 단계;

소정의 광고 데이터베이스에 상기 검색된 회원과 연관하여 상기 광고 데이터를 저장하는 단계; 및

상기 검색된 회원이 커뮤니티를 제공하는 커뮤니티 웹 페이지에 접속한 경우, 상기 광고 데이터를 상기 커뮤니티 웹 페이지 상에 디스플레이 하도록 하는 단계;

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 12.
제11항에 있어서,

상기 회원 정보는 상기 회원의 나이, 성별, 생일, 취미, 학교 정보, 및 직업 정보, 상기 회원과 연관된 지역, 상기 회원이 가입한 커뮤니티 정보, 및 상기 커뮤니티에서의 상기 사용자의 활동 정도 중 어느 하나 이상의 정보를 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 13.
제11항에 있어서,

상기 광고 데이터베이스에 상기 검색된 회원과 연관하여 상기 광고 데이터를 저장하는 상기 단계는,

소정의 과금 시스템에 상기 검색된 회원에 대한 결제가 수행되었는지 여부를 조회하는 단계; 및

상기 조회 결과 상기 결제가 수행된 경우 상기 광고 데이터베이스에 상기 검색된 회원과 연관하여 상기 광고 데이터를 저장하는 단계

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 14.
제1항 또는 제11항에 있어서,

상기 디스플레이에 따른 광고 효과를 평가하기 위한 평가 자료를 산출하는 단계; 및

상기 평가 자료를 소정의 평가 웹 페이지 상에서 디스플레이 하도록 하는 단계

를 더 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 15.
제11항에 있어서,

상기 디스플레이에 따른 광고 효과를 평가하기 위한 평가 자료를 산출하는 단계;

상기 산출된 평가 자료에 기초하여 상기 회원의 기여도를 측정하는 단계; 및

상기 기여도에 기초하여 상기 회원에게 소정의 보상을 하는 단계

를 더 포함하는 것을 특징으로 하는 커뮤니티 키워드 광고 방법.

청구항 16.
제15항에 있어서,

상기 기여도에 기초하여 상기 회원에게 소정의 보상을 하는 상기 단계는,

상기 회원에게 소정의 사이버 머니 또는 소정의 사이버 아이템을 지급하는 단계

를 포함하는 것을 특징으로 하는 커뮤니티 키워드 방법.

청구항 17.
제1항 내지 제13항, 제15항 및 제16항 중 어느 한 방법을 실행시키기 위한 프로그램을 기록한 컴퓨터 판독 가능한 기록 매체.

청구항 18.
인터넷 커뮤니티 서비스에서의 커뮤니티 광고 시스템에 있어서,

광고주로부터 대표 키워드의 선택 및 제1 광고 데이터를 입력 받기 위한 사용자 인터페이스;

커뮤니티와 연관하여 대표 키워드 및 상기 대표 키워드에 대응하는 상기 제1 광고 데이터를 유지하기 위한 광고 데이터베이스;

사용자가 상기 커뮤니티를 제공하는 커뮤니티 웹 페이지에 접속한 경우, 상기 광고 데이터베이스 중에서 상기 커뮤니티와 연관된 대표 키워드를 검색하고 상기 검색된 대표 키워드에 대응하는 광고 데이터를 검색하기 위한 광고 데이터 검색부; 및

상기 커뮤니티 웹 페이지 상에 상기 검색된 광고 데이터를 디스플레이하기 위한 디스플레이 제어부

를 포함하는 것을 특징으로 하는 커뮤니티 광고 시스템.

청구항 19.
제18항에 있어서,

소정의 회원 인증 절차를 통해 가입된 회원과 연관된 회원 정보를 유지하기 위한 회원 데이터베이스; 및

상기 회원 데이터베이스 중에서 상기 회원 정보에 기초하여 소정의 조건에 대응하는 회원을 검색하기 위한 회원 검색부

를 더 포함하고,

상기 사용자 인터페이스는 상기 광고주로부터 상기 조건 및 상기 조건에 대응하는 제2 광고 데이터를 더 입력 받고,

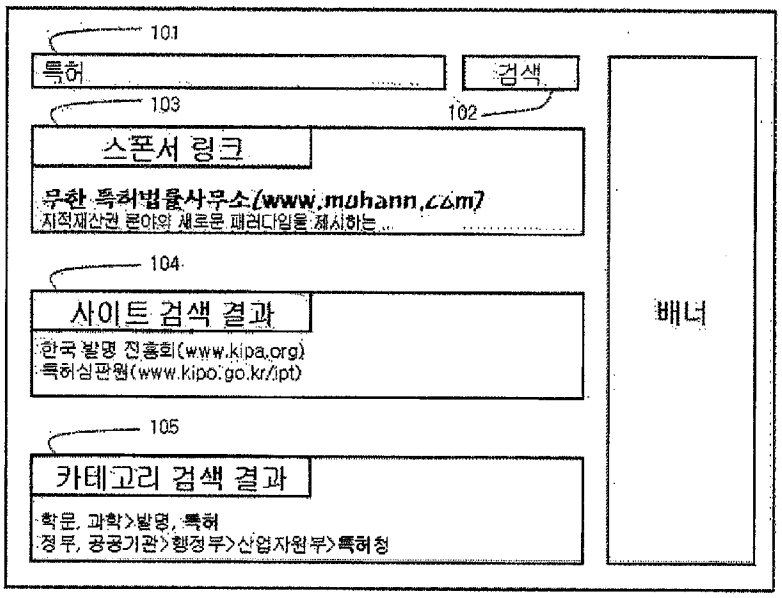
상기 광고 데이터베이스는 상기 검색된 회원과 연관하여 상기 제2 광고 데이터를 더 유지하고,

상기 디스플레이 제어부는 상기 검색된 회원이 임의의 커뮤니티 웹 페이지에 접속한 경우 상기 제2 광고 데이터를 상기 커뮤니티 웹 페이지 상에 디스플레이 하도록 하는 것을

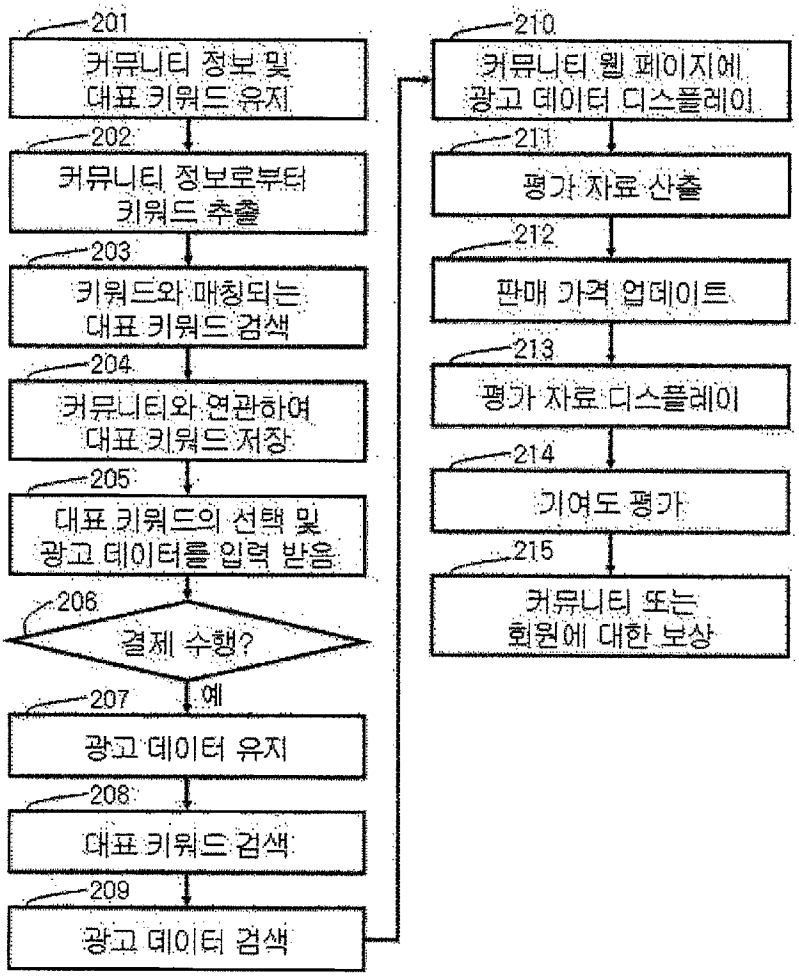
특징으로 하는 커뮤니티 키워드 광고 시스템.

도면

도면1


101
특허
검색
102
103
스폰서 링크
무한 특허법률사무소(www.mohann.com)
지적재산권 온라인 새로운 패러다임을 제시하는
104
사이트 검색 결과
한국 발명 진흥회(www.kipa.org)
특허심판원(www.kipo.go.kr/ipt)
105
카테고리 검색 결과
학문, 과학>발명, 특허
정부, 공공기관>행정부>산업자원부>특허청
배너

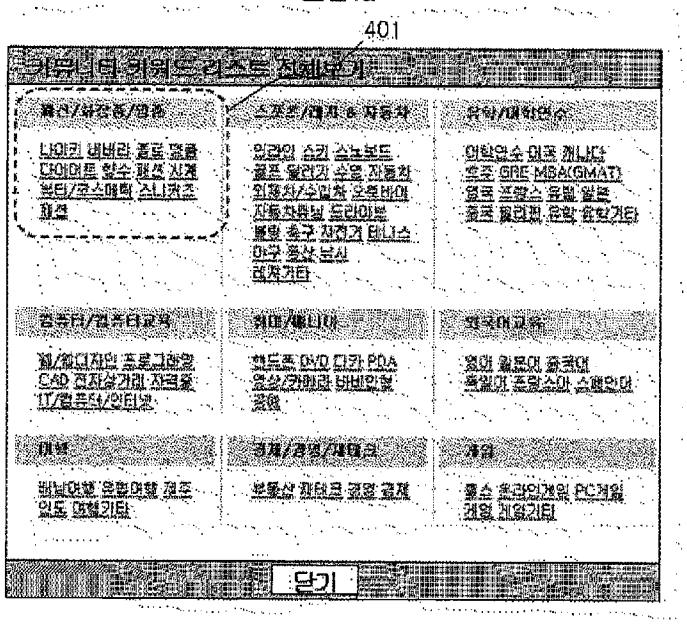
도면2



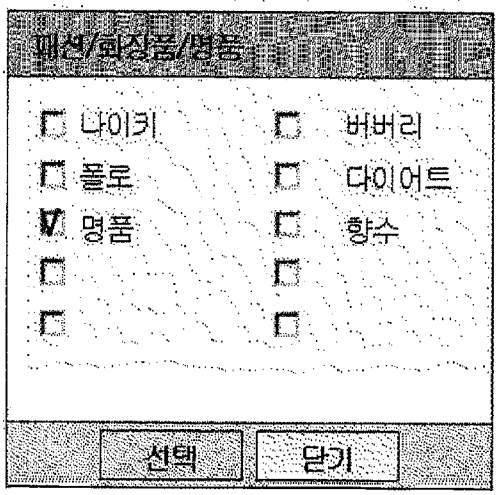
도면3

카테고리	대표 키워드	이름	소개글	직업 정보	지역 정보	회원 수
스포츠/레저>>레포츠	인라인	보라 인라인	인라인을 타기 위한 ...	없음	서울	29146
		드림 인라인	전문적인 인라인 강습...	없음	없음	1290
생활/건강>>건강	라식	라식을 말한다	...이 수술을 받으시면...	없음	서울	3
		맑은 눈 밝은 눈	시력이 좋지 않으신 ...	없음	없음	457
		베스트 라식	여러 명의 라식 수술을...	없음	전주	25

도면4a



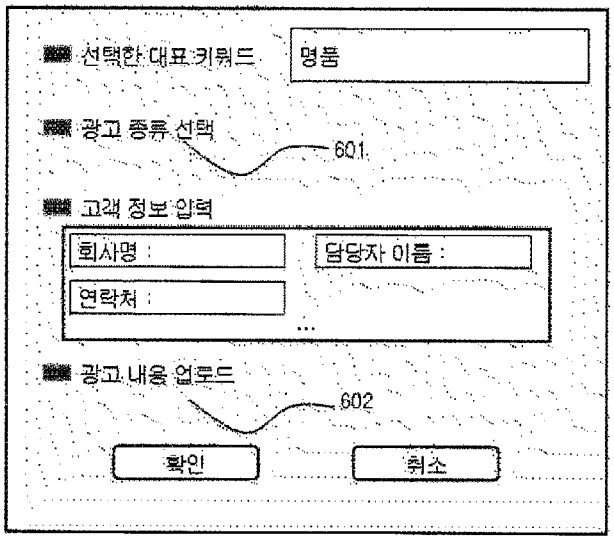
도면4b



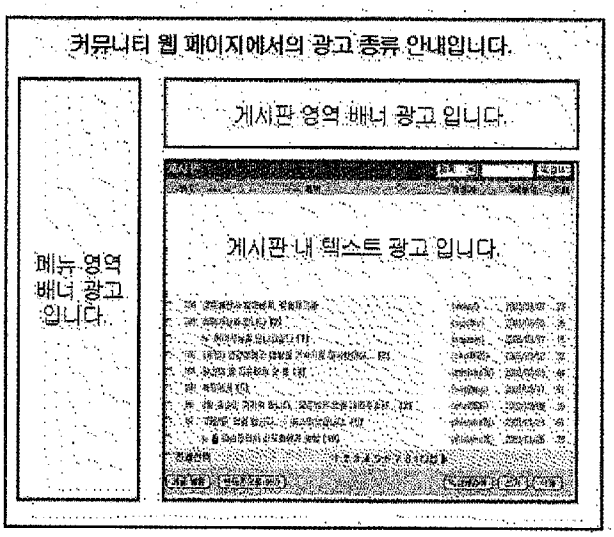
도면5

대표 키워드	포함 키워드	커뮤니티 수	회원 수
나이키	나이키	981	434,261
버버리	버버리	285	132,511
폴로	폴로, polo	501	167,431
다이어트	다이어트	585	50,620
명품	명품, 악세리, 브랜드	2,093	709,198
향수	향수	134	8,749
...	...	...	...

도면6a



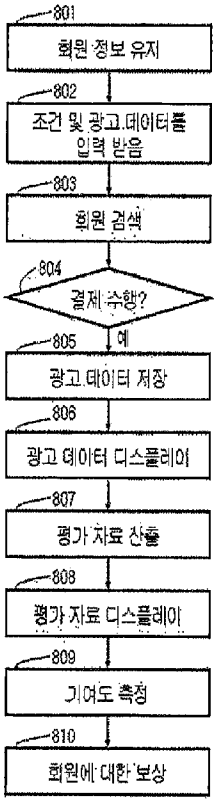
도면6b



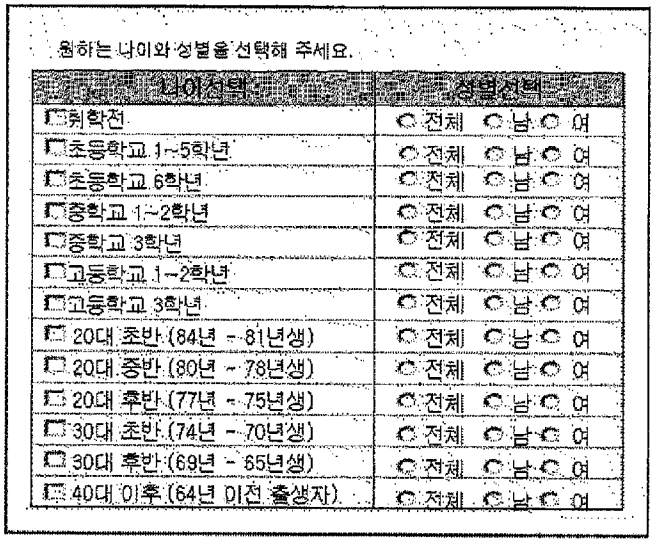
도면7

대표 커워드 (701)	노출 커뮤니티 수 및 회원 수 (702)	노출 사용자 수 (703)	노출 회수 (704)	선택 회수 (705)
명품	2,097/709,208	578,282	97,382,250	679,296
버버리	285/132,511	97,435	107,385	9,811
...	...	...	...	...

도면8

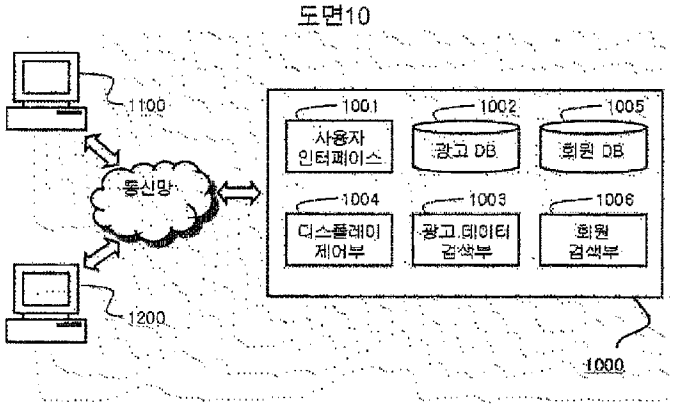


도면9

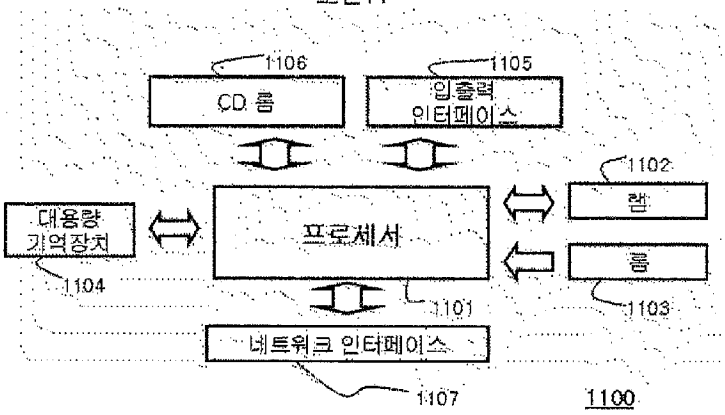

원하는 나이와 성별을 선택해 주세요.

나이선택	성별선택
취학전	전체 남 여
초등학교 1~5학년	전체 남 여
초등학교 6학년	전체 남 여
중학교 1~2학년	전체 남 여
중학교 3학년	전체 남 여
고등학교 1~2학년	전체 남 여
고등학교 3학년	전체 남 여
20대 초반 (84년 ~ 81년생)	전체 남 여
20대 중반 (80년 ~ 78년생)	전체 남 여
20대 후반 (77년 ~ 75년생)	전체 남 여
30대 초반 (74년 ~ 70년생)	전체 남 여
30대 후반 (69년 ~ 65년생)	전체 남 여
40대 이후 (64년 이전 출생자)	전체 남 여

도면10


1100
통신망
1200
1001
사용자 인터페이스
1002
광고 DB
1005
회원 DB
1004
디스플레이 제어부
1003
광고 데이터 검색부
1006
회원 검색부
1000

도면11


1106
CD 롬
1105
입출력 인터페이스
1102
램
대용량 기억장치
프로세서
롬
1104
1101
1103
네트워크 인터페이스
1107
1100

ADVERTISEMENT METHOD USING PROFILE PHOTOGRAPH

Publication number: KR20010035449
Publication date: 2001-05-07
Inventor: CHOI JUN GWAN (KR); YOON YOUNG HYUN (KR)
Applicant: YOON YOUNG HYUN (KR)
Classification:
- International: (IPC1-7): G06F17/60B
- European:
Application number: KR20010007409 20010215
Priority number(s): KR20010007409 20010215

Report a data error here

Abstract of **KR20010035449**

PURPOSE: The advertisement method using a profile photograph is provided to offer the profile photograph of a user at a low cost, and allow an advertisement provider to utilize various profile photographs in advertisement, by making the advertisement included in the profile photographs. CONSTITUTION: The data of the advertisement provider collected is stored in a database(S210). The profile photograph of an individual are taken in the photo studio designated by the advertisement provider(S220). If the individual asks the discount of a photograph price, the advertisement is inserted into the photograph of the individual(S240). The payment for the discounted photograph is demanded to the photograph owner(S250), and the data related to the discount is transmitted to the server of a service provider(S260). The service provider sends the data received to the advertisement provider, and demands payment for the advertisement(S270). The advertisement provider remits the fees for the advertisement to the service provider(S280), which sends the money resulted from subtracting the fees of the advertisement provider from the advertisement fees to the photograph studio(S290).

Data supplied from the ***esp@cenet*** database - Worldwide

(19) 대한민국특허청(KR)
(12) 공개특허공보(A)

(51) Int. Cl.[6]
G06F 17/60B0(조기공개)

(11) 공개번호 특2001-0035449
(43) 공개일자 2001년05월07일

(21) 출원번호 10-2001-0007409
(22) 출원일자 2001년02월15일

(71) 출원인 윤영현
서울특별시 마포구 공덕2동 188-108 현대아파트 1동 705호
(72) 발명자 최준관
경기도양평군용문면신점리369-64
윤영현
서울특별시 마포구 공덕2동 188-108 현대아파트 1동 705호
(74) 대리인 김성수

심사청구 : 있음

(54) 프로필 사진을 이용한 광고 방법

요약

본 발명은 개인의 프로필 사진을 이용한 광고 방법에 대하여 개시한다. 본 발명에서는, 서비스 제공자가 프로필 사진을 통한 광고 모델을 희망하는 개인 회원과 상기 프로필 사진을 광고에 사용하기를 원하는 광고주 회원을 모집하여, 상기 모집에 응해 회원으로 등록한 개인 회원이 서비스 제공자가 지정한 사진관에서 프로필 사진을 촬영한다.

서비스 제공자가 촬영된 사진을 해당 개인 회원에게 발송하고 촬영된 사진을 이미지 파일로 데이터베이스에 저장하고, 상기 모집에 응해 회원으로 등록한 광고주 회원이 서비스 제공자의 사이트에 접속하여 상기 데이터베이스에 저장되어 있는 이미지 파일을 검색해서 광고 모델로 사용할 이미지 파일을 선택하면, 광고주 회원이 상기 선택된 이미지 파일 정보를 서비스 제공자에게 전송한다.

광고주 회원으로부터 상기 정보를 전송받은 서비스 제공자가 광고주 정보를 이미지 파일에 해당하는 개인 회원에게 전송하여 모델에 응할 것인지 문의해서, 개인 회원이 상기 광고주 정보를 검토한 뒤 서비스 제공자에게 광고에 응하기로 통지하면, 개인 회원으로부터 상기 광고 승낙 통지를 받은 서비스 제공자가 해당 광고주에게 해당 프로필 사진의 이미지 파일을 전송하고, 상기 이미지 파일을 전송받은 광고주가 상기 이미지 파일을 이용하여 광고를 만들어 광고함과 동시에 만들어진 광고를 서비스 제공자에게 전송한다.

그러면 서비스 제공자는 상기 전송받은 광고를 해당 개인 회원에게 전송함과 동시에 이미지 파일로 만들어 데이터베이스에 저장하고, 서비스 제공자가 광고주가 해당 프로파일 사진이 광고에 이용된 실적을 파악하여 광고주에게 광고비를 청구하면, 광고주가 서비스 제공자에게 광고비를 송금하고, 서비스 제공자가 상기 송금받은 광고비에서 소정의 수수료를 공제한 뒤 해당 개인 회원에게 송금한다.

또는, 서비스 제공자가 지정한 사진관에서 프로필을 찍은 개인은 자신이 원하는 광고를 자신의 프로필 사진에 삽입하여 출력하면 광고에 따라 할인된 가격으로 사진을 제공받는다. 그리고 상기 지정 사진관에서는 광고별로 사용된 통계를 관리하고, 이를 광고주에게 제시하여 광고를 프로필 사진에 삽입한 고객에게 할인해준 금액을 지급받는다. 이를 통하여 개인이 자신이 원하는 회사의 광고 모델이 될 수 있는 사업도 가능하다.

대표도

도6

색인어

프로필 사진, 광고, 디지털 카메라, 이미지 파일.

명세서

도면의 간단한 설명

도 1 은 광고가 삽입되기 전의 프로필 사진의 일 예

도 2 는 광고가 삽인된 후의 프로필 사진의 일 예.

도 3 은 광고가 삽입되기 전의 프로필 사진의 다른 예.

도 4 는 광고가 삽입된 후의 프로필 사진의 다른 예.

도 5 는 본 발명에 따른 프로필 사진을 이용한 광고 방법의 바람직한 일 실시예의 흐름도.

도 6 은 본 발명에 따른 프로필 사진을 이용한 광고 방법의 바람직한 다른 실시예의 흐름도.

발명의 상세한 설명

발명의 목적

발명이 속하는 기술 및 그 분야의 종래기술

본 발명은 일반 개인의 프로필 사진을 이용한 광고 방법에 관한 것이다.

종래에는 각 개인은 자신이 원하는 경우 사진관에 가서 단순하게 자신의 프로필 사진을 촬영하여 사진을 제공받는데 그쳤을뿐 이를 광고에 활용하는 경우는 고려되지 않았다. 따라서 광고주는 프로필 사진을 이용한 광고가 필요한 경우 유명 연예인의 프로필 사진을 촬영하여 이용하였고 이를 위해 많은 비용을 지불하여야 하는 것이 예사였다.

이러한 종래의 프로필 사진을 이용한 광고방법의 문제점은 소비자들이 너무 자주 보는 얼굴이어서 신선미가 부족하고, 비용이 너무 들며, 또 다양한 캐릭터의 프로필을 사용할 수 없을뿐만 아니라 일정기간 광고계약을 맺은 모델의 프로필 사진을 비록 마음에 들지 않더라도 할 수 없이 계약기간동안 사용하여야 하는 모순점이 있었다.

이 외에도 일반인은 프로필 사진을 찍고 싶어도 촬영비용이 비싸서 망설이는 경우가 많았다. 그래서 일반인이 프로필 사진을 찍는 경우는 그렇게 흔한 일은 아닌 것이 현실이다.

발명이 이루고자하는 기술적 과제

본 발명은 때묻지 않은 일반인의 프로필 사진에 광고 개념을 도입하여 사용자에게는 저렴한 비용의 프로필 사진 출력 서비스를 제공하고 광고주에게는 저렴하고 참신하며 다양한 프로필 사진을 광고에 활용할 수 있는 광고 방법을 제공하는 것을 목적으로 한다.

본 발명의 다른 목적은 광고주에게 일반 개인을 광고 모델화시켜 보다 더 적극적인 마케팅이 가능한 방법을 제공하는 것이다.

본 발명의 다른 목적과 장점은 하기된 발명의 상세한 설명을 읽고 첨부된 도면을 참조하면 보다 명백해질 것이다.

발명의 구성 및 작용

〈 제 1 실시예 〉

본 발명에 따른 프로필 사진을 이용한 광고 방법의 바람직한 일 실시예의 흐름은 도 5에 도시된 바와 같다. 본 발명의 광고 방법에서는, 서비스 제공자가 프로필 사진을 통한 광고 모델을 희망하는 개인 회원과 상기 프로필 사진을 광고에 사용하기를 원하는 광고주 회원을 모집하고(s10), 상기 모집에 응해 회원으로 등록한 개인 회원이 서비스 제공자가 지정한 사진관에서 프로필 사진을 촬영한다(s30).

서비스 제공자가 촬영된 사진을 해당 개인 회원에게 무료로 제공하고 촬영된 사진을 이미지 파일로 데이터베이스에 저장하며(s40), 상기 모집에 응해 회원으로 등록한 광고주 회원이 서비스 제공자의 사이트에 접속하여 상기 데이터베이스에 저장되어 있는 이미지 파일을 검색하고(s50), 상기 검색을 통해 광고 모델로 사용할 이미지 파일을 선택한다(s60).

광고주 회원이 상기 선택된 이미지 파일 정보를 서비스 제공자에게 전송하면(s70), 광고주 회원으로부터 상기 정보를 전송받은 서비스 제공자가 광고주 정보를 이미지 파일에 해당하는 개인 회원에게 전송하여(s80) 모델에 응할 것인지 문의한다(s90).

상기 문의에 대해 만약 개인 회원이 상기 광고주 정보를 검토한 뒤 서비스 제공자에게 해당광고에 응하기를 원하지 않는 경우 이를 서비스 제공자에게 통지하면 서비스 제공자가 이 사실을 광고주에게 통지하여 다른 모델을 선택하도록 통지한다(s92).

만약 서비스 제공자가 개인 회원으로부터 상기 광고 승낙 통지를 받으면 해당 광고주에게 해당 프로필 사진의 이미지 파일을 전송하고(s100), 상기 이미지 파일을 전송받은 광고주가 상기 이미지 파일을 이용하여 광고를 만들어 광고함과 동시에 만들어진 광고를 서비스 제공자에게 전송하고(s110), 서비스 제공자는 상기 전송받은 광고를 해당 개인 회원에게 전송함과 동시에 이미지 파일로 만들어 데이터베이스에 저장한다(s120).

서비스 제공자가, 광고주가 해당 프로파일 사진이 광고에 이용된 실적을 파악하여 광고주에게 광고비를 청구하면(s130), 상기 청구에 따라 광고주가 서비스 제공자에게 광고비를 송금하고(s140), 서비스 제공자가 상기 송금받은 광고비에서 소정의 수수료를 공제한 뒤 해당 개인 회원에게 송금한다(s150).

본 실시예에 있어서, 상기 개인 회원을 모집할 때 개인 회원의 초상권을 침해하지 않기 위해 개인의 프로필 사진을 사용할 기간, 개인 회원의 승낙을 받은 광고에만 사용한다는 내용이 포함된 계약서를 서비스 제공자와 개인 회원이 체결하는 것이 바람직하다.

이때 상기 프로필 사진은 디지털 카메라로 촬영되는 것이 바람직하다. 그리고 개인 회원이 이미 프로필 사진을 촬영한 이미지 파일이 있는 경우에 이를 서비스 제공자에게 전송하면(s22), 상기 전송받은 이미지 파일을 서비스 제공자가 검토하여(s24) 이미지 파일을 상태가 만족스러운지 여부를 결정하고(s26), 상기 결정 결과 이미지 파일의 상태가 만족스러우면 개인 회원에게 별도로 프로필 사진을 찍지 않아도 된다는 통지를 하고, 만족스럽지 않으면 지정 사진관에서 프로필 사진을 다시 찍을 것을 통지한다.

또한 상기 이미지 파일을 개인 회원의 성별, 나이별, 직업별, 취미별, 옷차림별, 헤어스타일별, 체형별, 계절

별, 배경별로 분류하여 데이터베이스에 저장하는 것이 바람직하다.

광고주 회원이 원하는 경우 서비스 제공자가 프로필 사진과 광고주 회원이 제공하는 광고문구와 광고할 상품 정보를 토대로 광고를 만들어 광고주 회원에게 제공하는 것이 바람직하다.

광고주 회원은 프로필 사진을 이용한 광고를 한 실적을 서비스 제공자에게 제공하고, 상기 제공받은 정보를 참고하여 서비스 제공자가 광고에 이용된 실적을 파악하는 것이 바람직하다.

상기 광고에 이용된 실적을 파악 및 분석하여 각 개인 회원별로 데이터베이스로 구축하고, 상기 분석 결과를 토대로 광고주들에게 상품별 마케팅 자료 및 광고 전략 자료를 제공하는 것이 바람직하다.

그리고 상기 분석 결과 광고 이용실적이 소정의 기준 이상인 개인 회원을 서비스 제공자의 전속 모델로 선정하여 해당 개인 회원과 소정 기간동안 전속 계약을 체결하고 상기 계약에 따라 일체의 모델 관리를 서비스 제공자가 하는 것이 바람직하다.

한편 프로필 광고 서비스 제공자는 일반 개인의 프로필 사진을 이용하여 광고를 하기를 원하는 광고주를 회원으로 모집하는 경우 회원모집은 온오프라인으로 이루어질 수 있으나 온라인 모집이 더 바람직하다.

그리고 서비스 제공자는 상기 개인 회원 모집시 소정의 개인 정보를 검토한 뒤 소정의 모델 선발 기준을 통해 개인 회원으로 등록시켜주는 것이 바람직하다.

본 발명에서는, 프로필 사진은 다수의 광고주 회원이 광고 모델로 사용할 수 있고, 광고주가 원하는 경우 특정 광고주 회원이 독점할 수도 있다. 프로필 사진을 독점하는 경우 광고료를 더 비싸게 설정하는 것이 바람직하다.

상기 계약 기간이 만료된 경우 프로필 광고 모델에게 프로필 사진의 이미지 파일을 되돌려줌과 동시에 데이터베이스에서 해당 이미지 파일을 삭제하는 것이 바람직하다.

그리고 서비스 제공자의 전속 모델 선발 기준은 소비자들의 반응과 광고 효과를 고려하여 객관적으로 선정하는 것이 바람직하다.

또 광고주가 원할 경우 모델이 광고주가 원하는 상품을 가지고 다시 프로필 사진을 찍을 수도 있다. 이때에는 광고주는 서비스 제공자에게 별도의 수수료를 지급하여야 하며, 서비스 제공자도 이에 따른 소정의 수수료를 모델에게 지급한다.

그리고 광고주가 각 모델에 대한 광고비를 자유로이 선택할 수 있도록 하는 것이 바람직하다. 또한 프로필 사진을 찍는 모델도 모델료를 자유로이 설정할 수 있도록 하는 것이 바람직하다.

〈 제 2 실시예 〉

본 발명에 따른 프로필 사진을 이용한 광고 방법의 다른 실시예의 흐름도는 도 6에 도시된 바와 같다. 즉 서비스 제공자가 일반인의 프로필 사진을 통한 광고를 원하는 광고주를 모집하여 데이터베이스로 구축하고(s210), 프로필 사진 촬영을 원하는 개인이 서비스 제공자가 지정한 사진관에서 프로필 사진을 촬영한다(s220).

상기 지정 사진관측이 프로필 사진을 촬영한 개인에게 개인 프로필에 광고를 삽입하여 촬영비를 감면받을 것인지 여부를 질문하면(s230), 상기 질문에 따라 개인 프로필에 광고를 삽입하기로 한 경우 지정 사진관측은 상기 개인이 찍은 프로필 사진에 서비스 제공자가 제공하는 광고 문구를 삽입하고(s240), 그렇지 않으면 통상적인 절차를 거쳐 개인이 사진촬영비를 지급하고 사진을 찾아가게 된다.

상기 지정 사진관측이 상기 프로필 사진의 주인에게 상기 프로필 사진에 삽입된 광고의 광고비만큼 할인된 촬영비를 청구하면(s250), 상기 지정 사진관측은 상기 할인해준 데이터를 데이터베이스에 저장한 뒤 서비스 제공자의 서버로 전송하고(s260), 상기 할인 데이터를 전송받은 서비스 제공자는 상기 데이터를 해당 광고주에게 전송함과 아울러 해당 광고비를 청구한다(s270).

상기 청구에 따라 해당 광고주가 광고비를 서비스 제공자에게 송금하고(s280), 상기 송금액에서 소정의 수수료를 공제한 나머지 금액을 해당 지정 사진관으로 송금한다(s290). 그리고 상기 광고비 입금을 확인한 사진관은 해당 프로필 사진을 출력하여 해당 개인에게 제공한다(s300).

이때 상기 광고 삽입시 광고를 해당 개인이 선택하도록 하는 것이 바람직하다.

본 발명은 다양하게 변형될 수 있고 여러 가지 형태를 취할 수 있으며 상기 발명의 상세한 설명에서는 그에 따른 특별한 실시예에 대해서만 기술하였다. 하지만 본 발명은 상기 발명의 상세한 설명에서 언급된 특별한 형태로 한정되는 것이 아닌 것으로 이해되어야 하며, 오히려 첨부된 청구범위에 의해 정의되는 본 발명의 정신과 범위 내에 있는 모든 변형물과 균등물 및 대체물을 포함하는 것으로 이해되어야 한다.

발명의 효과

상기한 본 발명에 따라 광고주는 참신한 광고 모델을 저렴한 비용으로 확보할 수 있으며, 상기 광고 효과에 따라 합리적인 광고 모델비를 지급할 수 있게된다. 그리고 경우에 따라서는 저렴한 비용으로 좋은 전속모델을 확보할 수도 있다.

프로필 사진을 찍고 싶은 개인은 무료로 사진을 찍을 수 있고, 자신의 프로필 사진이 광고에 이용됨으로써 수입을 얻을 수 있으며, 경우에 따라서는 기업의 전속모델로 발탁될 수도 있게된다.

서비스 제공자는 광고주와 개인에게 서로 도움을 줄 수 있는 매개체 역할을 할 수 있으며, 부수적으로 건전한 그리고 공개적인 모델 발굴 및 관리 사업을 할 수 있는 이점이 있다.

(57) 청구의 범위

청구항 1

서비스 제공자가 프로필 사진을 통한 광고 모델을 희망하는 개인 회원과 상기 프로필 사진을 광고에 사용하기를 원하는 광고주 회원을 모집하는 단계;

상기 모집에 응해 회원으로 등록한 개인 회원이 서비스 제공자가 지정한 사진관에서 프로필 사진을 촬영하는 단계;

서비스 제공자가 촬영된 사진을 해당 개인 회원에게 무료로 제공하고 촬영된 사진을 이미지 파일로 데이터베이스에 저장하는 단계;

상기 모집에 응해 회원으로 등록한 광고주 회원이 서비스 제공자의 사이트에 접속하여 상기 데이터베이스에 저장되어 있는 이미지 파일을 검색하는 단계;

상기 검색을 통해 광고 모델로 사용할 이미지 파일을 선택하는 단계;

광고주 회원이 상기 선택된 이미지 파일 정보를 서비스 제공자에게 전송하는 단계;

광고주 회원으로부터 상기 정보를 전송받은 서비스 제공자가 광고주 정보를 이미지 파일에 해당하는 개인 회원에게 전송하여 모델에 응할 것인지 문의하는 단계;

개인 회원이 상기 광고주 정보를 검토한 뒤 서비스 제공자에게 해당광고에 응하기를 원하지 않는 경우 이를 서비스 제공자에게 통지하면 서비스 제공자가 이 사실을 광고주에게 통지하여 다른 모델을 선택하도록 통지하는 단계;

만약 개인 회원으로부터 상기 광고 승낙 통지를 받으면 서비스 제공자가 해당 광고주에게 해당 프로필 사진의 이미지 파일을 전송하는 단계;

상기 이미지 파일을 전송받은 광고주가 상기 이미지 파일을 이용하여 광고를 만들어 광고함과 동시에 만들어진 광고를 서비스 제공자에게 전송하는 단계;

서비스 제공자는 상기 전송받은 광고를 해당 개인 회원에게 전송함과 동시에 이미지 파일로 만들어 데이터베이스에 저장하는 단계;

서비스 제공자가 광고주가 해당 프로파일 사진이 광고에 이용된 실적을 파악하여 광고주에게 광고비를 청구하는 단계;

상기 청구에 따라 광고주가 서비스 제공자에게 광고비를 송금하는 단계; 및

서비스 제공자가 상기 송금받은 광고비에서 소정의 수수료를 공제한 뒤 해당 개인 회원에게 송금하는 단계를 포함하는, 프로필 사진을 이용한 광고 방법.

청구항 2

제 1 항에 있어서, 상기 개인 회원을 모집할 때 개인 회원의 초상권을 침해하지 않기 위해 개인의 프로필 사진을 사용할 기간, 개인 회원의 승낙을 받은 광고에만 사용한다는 내용이 포함된 계약서를 서비스 제공자와 개인 회원이 체결하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 3

제 1 항에 있어서, 상기 프로필 사진은 디지털 카메라로 촬영되는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 4

제 1 항에 있어서, 개인 회원이 이미 프로필 사진을 촬영한 이미지 파일이 있는 경우에 이를 서비스 제공자에게 전송하는 단계;

상기 전송받은 이미지 파일을 서비스 제공자가 검토하여 이미지 파일을 상태가 만족스러운지 여부를 결정하는 단계; 및

상기 결정 결과 이미지 파일의 상태가 만족스러우면 개인 회원에게 별도로 프로필 사진을 찍지 않아도 된다는 통지를 하고, 만족스럽지 않으면 지정 사진관에서 프로필 사진을 다시 찍을 것을 통지하는 단계를 더 포함하는, 프로필 사진을 이용한 광고 방법.

청구항 5

제 1 항에 있어서, 상기 이미지 파일을 개인 회원의 성별, 나이별, 직업별, 취미별, 옷차림별, 헤어스타일별, 체형별, 계절별, 배경별로 분류하여 저장하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 6

제 1 항에 있어서, 광고주 회원이 원하는 경우 서비스 제공자가 프로필 사진과 광고주 회원이 제공하는 광고문구와 광고할 상품 정보를 토대로 광고를 만들어 광고주 회원에게 제공하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 7

제 1 항에 있어서, 광고주 회원은 프로필 사진을 이용한 광고를 한 실적을 서비스 제공자에게 제공하고, 상기 제공받은 정보를 참고하여 서비스 제공자가 광고에 이용된 실적을 파악하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 8

제 1 항에 있어서, 상기 광고에 이용된 실적을 파악 및 분석하여 각 개인 회원별로 데이터베이스로 구축하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 9

제 8 항에 있어서, 상기 분석 결과를 토대로 광고주들에게 상품별 마케팅 자료 및 광고 전략 자료를 제공하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 10

제 8 항에 있어서, 상기 분석 결과 광고 이용실적이 소정의 기준 이상인 개인 회원을 서비스 제공자의 전속 모델로 선정하여 해당 개인 회원과 소정 기간동안 전속 계약을 체결하고 상기 계약에 따라 일체의 모델 관리를 서비스 제공자가 하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 11

제 1 항에 있어서, 상기 데이터베이스에 저장된 프로필 사진은 다수의 광고주 회원이 광고 모델로 사용할 수 있고, 광고주가 원하는 경우 특정 광고주 회원이 독점할 수도 있으며, 프로필 사진을 독점하는 경우 광고료를 더 비싸게 설정하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 12

제 1 항에 있어서, 상기 계약 기간이 만료된 경우 프로필 광고 모델에게 프로필 사진의 이미지 파일을 되돌려 줌과 동시에 데이터베이스에서 해당 이미지 파일을 삭제하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 13

제 10 항에 있어서, 상기 소정의 기준에는 소비자들의 반응과 광고 효과가 포함되는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 14

제 1 항에 있어서, 광고주 회원이 각 프로필 사진 모델에 대한 광고비를 자유로이 선택할 수 있도록 하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 15

제 1 항에 있어서, 프로필 사진의 모델이 광고비를 자유로이 설정할 수 있도록 하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

청구항 16

서비스 제공자가 일반인의 프로필 사진을 통한 광고를 원하는 광고주를 모집하여 데이터베이스로 구축하는 단계;

프로필 사진 촬영을 원하는 개인이 서비스 제공자가 지정한 사진관에서 프로필 사진을 촬영하는 단계;

상기 지정 사진관측이 프로필 사진을 촬영한 개인에게 개인 프로필에 광고를 삽입하여 촬영비를 감면받을 것인지 여부를 질문하는 단계;

상기 질문에 따라 개인 프로필에 광고를 삽입하기로 한 경우 지정 사진관측은 상기 개인이 찍은 프로필 사진에 서비스 제공자가 제공하는 광고 문구를 삽입하는 단계;

상기 지정 사진관측이 상기 프로필 사진의 주인에게 상기 프로필 사진에 삽입된 광고의 광고비만큼 할인된 촬영비를 청구하는 단계;

상기 지정 사진관측은 상기 할인해준 데이터를 데이터베이스에 저장한 뒤 서비스 제공자의 서버로 전송하는 단계;

상기 할인 데이터를 전송받은 서비스 제공자는 상기 데이터를 해당 광고주에게 전송함과 아울러 해당 광고비를 청구하는 단계;

상기 청구에 따라 해당 광고주가 광고비를 서비스 제공자에게 송금하는 단계;

상기 송금액에서 소정의 수수료를 공제한 나머지 금액을 해당 지정 사진관으로 송금하는 단계; 및

광고비 입금을 확인한 사진관은 해당 프로필 사진을 출력하여 해당 개인에게 제공하는 단계를 포함하는, 프로필 사진을 이용한 광고 방법.

청구항 17

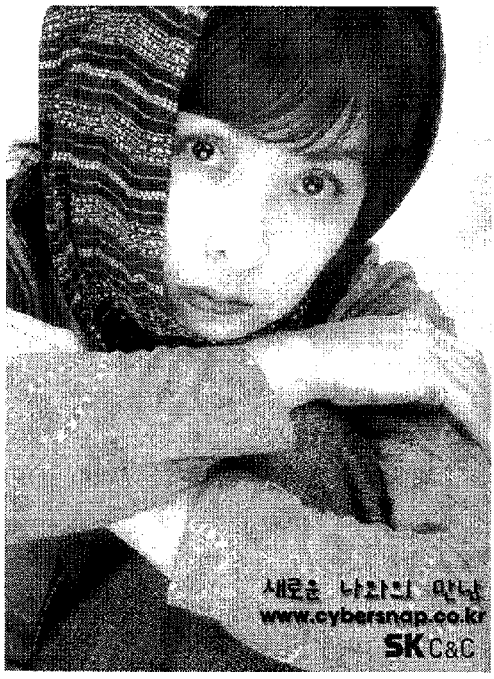
제 16 항에 있어서, 상기 광고 삽입시 광고를 해당 개인이 선택하는 것이 특징인, 프로필 사진을 이용한 광고 방법.

도면

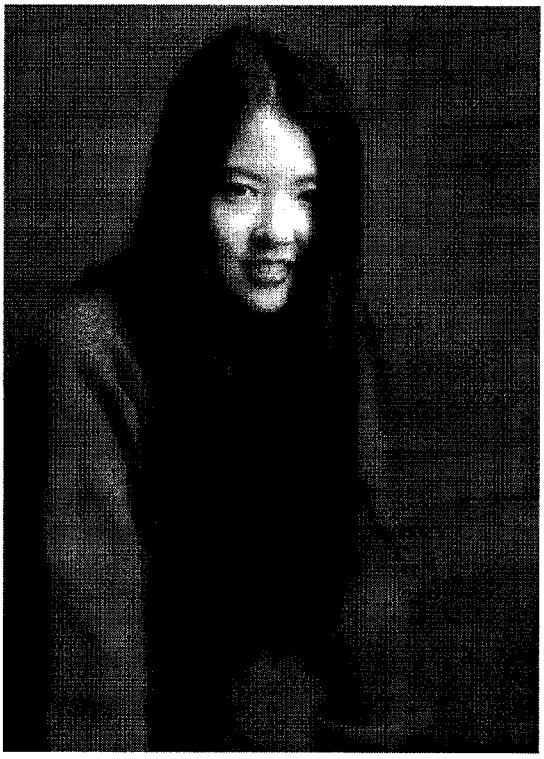
도면1



도면2



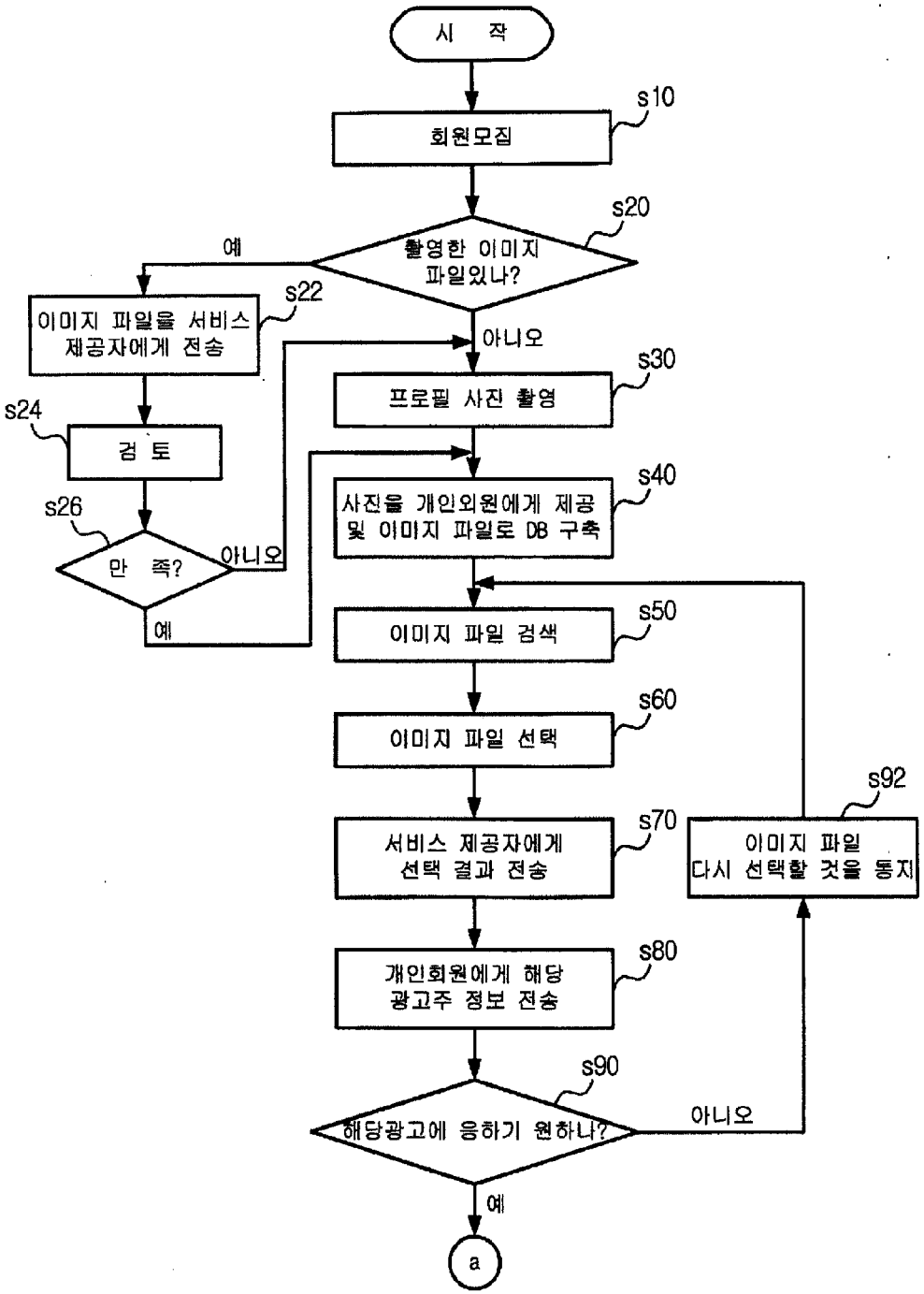
도면3



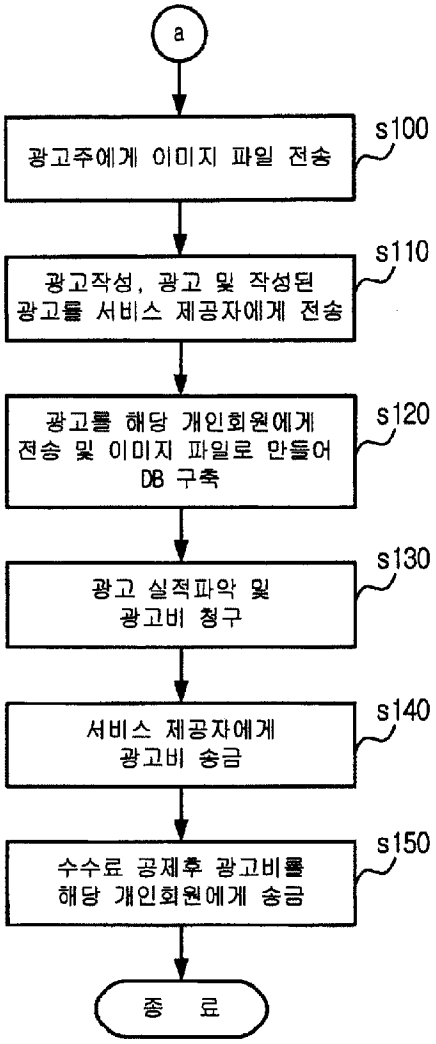
도면4



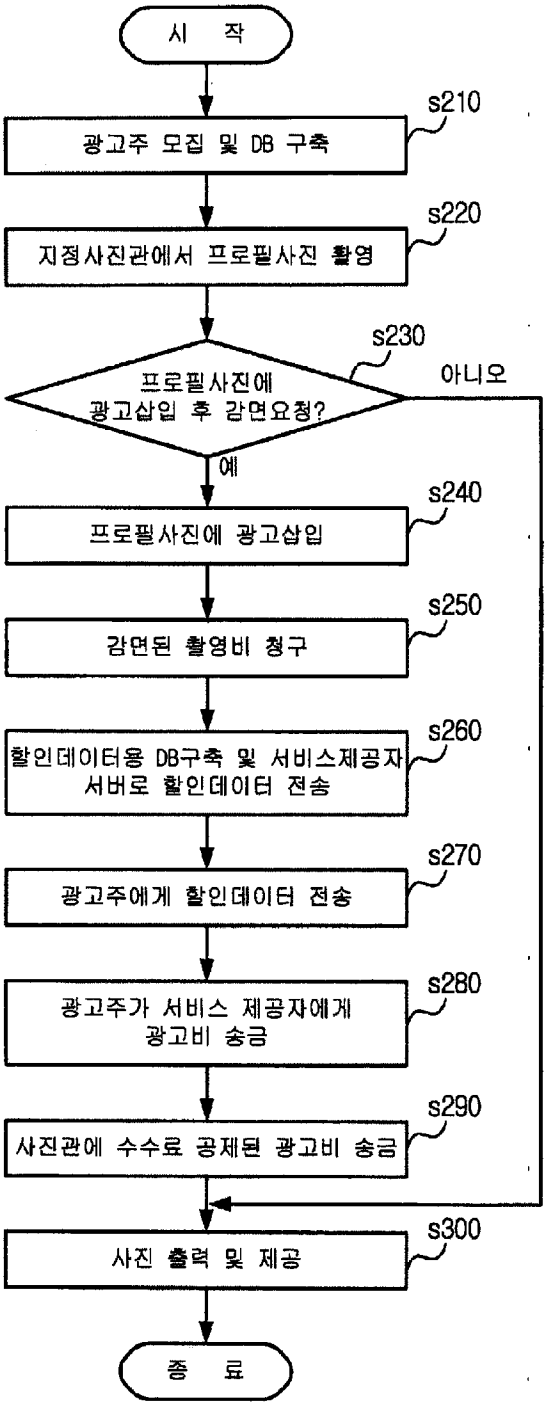
도면5a


시 작
s10
회원모집
s20
촬영한 이미지 파일있나?
예
아니오
s22
이미지 파일을 서비스 제공자에게 전송
s30
프로필 사진 촬영
s24
검 토
s40
사진을 개인외원에게 제공 및 이미지 파일로 DB 구축
s26
만 족?
아니오
예
s50
이미지 파일 검색
s60
이미지 파일 선택
s70
서비스 제공자에게 선택 결과 전송
s92
이미지 파일 다시 선택할 것을 통지
s80
개인회원에게 해당 광고주 정보 전송
s90
해당광고에 응하기 원하나?
아니오
예
a

도면5b


a
광고주에게 이미지 파일 전송
s100
광고작성, 광고 및 작성된 광고를 서비스 제공자에게 전송
s110
광고를 해당 개인회원에게 전송 및 이미지 파일로 만들어 DB 구축
s120
광고 실적파악 및 광고비 청구
s130
서비스 제공자에게 광고비 송금
s140
수수료 공제후 광고비를 해당 개인회원에게 송금
s150
종 료

도면6


시 작
s210
광고주 모집 및 DB 구축
s220
지정사진관에서 프로필사진 촬영
s230
프로필사진에
광고삽입 후 감면요청?
아니오
예
s240
프로필사진에 광고삽입
s250
감면된 촬영비 청구
s260
할인데이터용 DB구축 및 서비스제공자
서버로 할인데이터 전송
s270
광고주에게 할인데이터 전송
s280
광고주가 서비스 제공자에게
광고비 송금
s290
사진관에 수수료 공제된 광고비 송금
s300
사진 출력 및 제공
종 료

BASIC BIBLIOGRAPHIC DATA FOR KR20000064105

1 / 1 FAMPAT - ©Questel

Family Accession Nbr :
20062780070534

Patent Number :
KR20000064105 A 20001106 [KR20000064105]

Title :
ADVERTISING SYSTEM BASED ON COMMUNITY ON INTERNET AND METHOD THEREBY

Patent Assignee :
MOON JEE HWAN

Inventor(s) :
MOON JEE HWAN

Application Nbr :
2000KR-0048512 20000822

Priority Details :
2000KR-0048512 20000822

IPC :
G06F-017/60

Update New docs :
2002-49

(19) 대한민국특허청(KR)
(12) 공개특허공보(A)

(51) · Int. Cl. '
G06F 17/60(조기공개)

(11) 공개번호 특2000-0064105
(43) 공개일자 2000년11월06일

(21) 출원번호 10-2000-0048512
(22) 출원일자 2000년08월22일

(71) 출원인 문지환
대전광역시 유성구 신성동 럭키하나아파트 102동 902호
(72) 발명자 문지환
대전광역시 유성구 신성동 럭키하나아파트 102동 902호
(74) 대리인 안광석, 박영일, 김함곤

심사청구 : 있음

(54) 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템 및 그방법

요약

본 발명은 인터넷상의 커뮤니티 서비스 시스템과 결합하여, 서비스 사용자에 의해 사용된 대화 내용의 주요 단어(키워드)를 분석하고 분석 결과에 상응하는 배너광고를 검색하여 사용자 웹브라우저에 교체 푸시하는 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템 및 방법을 제공한다. 본 발명에 의한 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템은 다자에게 대화 서비스를 제공하는 대화 제어부 ; 대화 제어부 사용자에 의해 사용된 대화 내용의 주요 단어를 수집하는 히스토리 제어기; 및 우선순위를 계산하여 필요한 광고를 요청하고, 전달받은 배너광고를 디스플레이하는 광고스페이스 제어기를 포함하는 채팅서버와 대화에 사용된 언어를 분석하여 키워드를 추출하는 히스토리 분석서버; 키워드에 상응하는 배너광고를 검색하는 배너검색서버; 광고스페이스 제어기에서 요청한 광고를 송출하고 선택된 배너광고의 웹페이지를 사용자 웹브라우저에 연결하는 배너 서버; 및 배너광고의 수치 자료를 통계내어 광고주에게 연결하고 배너광고 등록 현황을 관리하는 배너관리서버를 포함하는 실시간 대화형 광고(RIA: Realtime Interactive Advertisement)시스템으로 구성된다. 따라서, 인터넷상의 커뮤니티 서비스 사용자를 대상으로 하여 서비스 사용자의 요구에 부응하는 광고를 제공하고, 상기 사용자에 대한 정보를 세분화할 수 있어 개별 상품의 광고도 수행할 수 있게 되며, 상기 사용자의 성향 분석 및 수치화된 광고 효과의 산출이 가능하게 된다.

대표도

도2

명세서

도면의 간단한 설명

도 1은 본 발명에 의한 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템의 일실시예에 따른 네트워크 연결상의 연결관계를 도시한 블록도이다.

도 2는 본 발명에 의한 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템의 일실시예에 따른 전체 구성을 도시한 블록도이다.

도 3은 본 발명에 의한 인터넷상의 커뮤니티를 기반으로 하는 광고 제공 방법을 도시한 흐름도이다.

도 4는 본 발명에 의한 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템에 있어 시스템의 동작에 관계하는 통신 프로토콜을 예시한 것이다.

〈도면의 주요 부분에 대한 부호의 설명〉

100: 채팅서버 110: 대화 제어부

120: 배너 검색 서버 150: 광고 스페이스 제어기

200: RIA 시스템 210: 히스토리 분석 서버

220: 배너 검색 서버 250: 배너 제어 서버

260: 배너 관리 서버

발명의 상세한 설명

발명의 목적

발명이 속하는 기술 및 그 분야의 종래 기술

본 발명은 인터넷상의 커뮤니티를 구성하는 채팅, 방명록, 게시판 등을 기반으로 커뮤니티 서비스 사용자의 기호를 분석하여 특정화한 광고를 푸시하는 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템 및 그 방법에 관한 것이다.

인터넷 광고는 기존의 다른 매체를 통한 광고에 비해 쌍방향성, 직접 마케팅, 전세계 통합성, 시간의 비제약성, 풍부한 정보, 빠른 데이터 갱신, 네티즌 반응의 신속한 인지 등의 특성으로 인하여 급속한 이용률을 보여왔다.

일반적으로, 인터넷 광고의 대표적인 형태인 배너 광고는 픽셀 단위의 크기, 배너광고가 게재된 사이트의 종류, 게재 방식 및, 표현 방식에 따라 여러 가지가 있으며, 그 종류에 따라 조금씩 상이한 점은 있으나 정적이고 네티즌에게 일방적이어서 흥미를 유발시키기 어렵다는 점, 광고 효과를 예측하고 결과를 수집하기 어렵다는 점 등은 공통적인 한계 요소였다.

일례로 고정적인 배너를 노출하는 스태틱 방식은 검색엔진에서 찾은 검색 결과와 함께 배너를 노출하는 키워드 방식과 주

기별로 순환하는 입구게시형의 스크롤링 방식으로 개량되었으나 개량 대상은 일부에 불과했다.

또한 광고의 효과를 높이기 위해 크리에이티브 배너, 리치미디어 배너, 이벤트 배너, 트릭 배너 등이 출현하고 있지만, 단순히 클릭수를 높이기 위한 일회성의 광고에 지나지 않아 근본적인 문제를 해결하지 못하고 사용자들에게 실수 유도, 눈속임 등을 유발하게 하며 광고 크기에 따른 네트워크 속도저하의 불편함을 초래하고 있다.

기존의 배너 광고 방식에 식상함을 느끼는 네티즌들에게는 그들의 취향을 분석하여 직접 배너 광고를 투입하는 인터넷상의 정보수집, 분석, 광고 제공 기술이 요구된다. 또 광고주들은 배너광고의 게재 회수, 게재 시간, 피제공자들에 의한 배너광고의 선택 회수 등의 상세한 정보를 필요로 한다.

발명이 이루고자하는 기술적 과제

본 발명은 상기한 바와 같은 종래의 제반 문제점을 해결하기 위하여 안출된 것으로서, 인터넷상의 커뮤니티 서비스 사용자들의 대화 내용을 분석하고, 분석에 상응하는 배너광고를 검색하여 교체 게재하고, 커뮤니티 서비스 사용자가 게재된 광고를 선택하면 배너광고 웹페이지를 연결하고, 광고 효과를 수치화하여 광고주에게 제공하는 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템 및 그 방법을 제공하는 것을 그 목적으로 한다.

발명의 구성 및 작용

상기의 목적을 달성하기 위하여, 본 발명에 의한 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템은 다수의 네티즌과 컴퓨터 네트워킹하여 다자간의 대화서비스를 제공하는 대화 제어부; 대화 서비스 사용자들의 대화 내용을 수집하여 임시 저장 공간인 히스토리 스페이스에 저장하고 송출하는 히스토리 제어기; 배너 광고가 수용될 임시 저장 공간인 광고 스페이스; 및 광고 스페이스에 저장할 배너 광고를 우선 순위값에 의해 요청하고 전송 받은 배너 광고를 광고 스페이스에 디스플레이하는 광고 스페이스 제어기를 포함하는 채팅 서버와, 상기 히스토리 제어기로부터 수신한 대화 내용을 이미 작성되어 있는 단어 DB와 비교, 분석하여 키워드를 추출하는 히스토리 분석 서버; 추출된 키워드에 상응하는 배너 광고의 식별 코드를 배너 광고의 정보 코드가 저장되어 있는 배너 DB에서 검색하여 상기 광고 스페이스 제어기로 전송하는 배너 검색 서버; 광고 스페이스 제어기가 요청한 배너광고의 식별 코드에 따라 배너광고주소와 배너광고 링크주소에 해당하는 배너광고를 광고 스페이스 제어기로 전송하는 배너 서버; 및 광고 수치 정보를 통계 처리하고 광고주에 통계 처리 결과를 제공하여 배너 광고의 등록 현황을 관리하는 배너 관리 서버를 포함하는 실시간 대화형 광고(RIA: Realtime Interactive Advertisement)시스템으로 구성된다.

상기의 다른 목적을 달성하기 위하여, 본 발명에 의한 인터넷상의 커뮤니티를 기반으로 하는 광고 서비스 제공 방법은 (a) 대화 제어부로부터 대화내용을 제공받아 배너광고를 검색하기 위한 키워드를 추출하는 히스토리 분석 단계; 및

(b) 키워드 추출에 따라 해당하는 배너광고를 디스플레이되도록 제어하되, 해당하는 키워드가 없으면 임의의 배너광고를 디스플레이하도록 제어하는 배너광고 디스플레이 제어 단계를 포함하는 것으로서, 이를 세분화하면 사용자들의 대화내용(history)을 수집, 저장, 전송하는 히스토리 제어 단계, 전송받은 대화내용을 비교, 분석하는 히스토리 분석 단계, 히스토리 분석 결과에 따른 배너를 찾아내어 전송하는 배너검색 단계, 전송받은 배너들을 분류, 목록화 하고 이를 배너 서버에 요청하는 광고 스페이스 제어 단계, 요청받은 배너를 전송하는 단계, 광고의 효과 및 광고비 산정을 위한 배너광고 관리 단계로 이루어진다.

상기한 인터넷상의 커뮤니티를 이용한 광고 방법은 광고의 직접적이고 확실한 효과를 위해 사용자의 관심사항과 필요로 하는 정보를 파악한 후 광고를 푸시하는 것으로, 채팅만으로 한정되는 것이 아니며 채팅에서는 실시간 대화내용을 분석하고 게시판, 방명록 등에는 사용자 게시물을 분석하여 광고를 푸시하는 인터넷상의 커뮤니티가 형성되는 제반 서비스에서 실시 가능해진다.

이하에서 첨부된 도면을 참조하여 본 발명을 상세히 설명한다.

도 1은 본 발명의 일실시예에 따른 네트워크 구성을 설명하기 위한 도면이다.

커뮤니티를 기반으로 하는 광고 시스템(30)은 채팅서버(100)와 RIA(Realtime Interactive Advertisement)시스템(200)으로 구성되는데, 사용자(10)는 컴퓨터 네트워크(20)를 통해 채팅서버(100)에 접속하여 대화를 나누며, 채팅서버(100)는 사용자(10)의 대화내용을 주기적으로 RIA시스템(200)에 전달한다. RIA시스템(200)은 전달받은 대화내용에 가장 적합한 배너광고를 검색, 선정하여 채팅서버(100)에 전송하게된다. 또, 광고주(40)는 컴퓨터 네트워크(25)를 통해 RIA시스템(200)에 접속하여 자신의 광고에 대한 노출빈도, 노출시간, 클릭빈도를 포함한 통계자료를 확인하고, 새로운 배너광고의 등록, 수정, 삭제 등의 작업을 온라인 상에서 한다.

도 2에 의하면 본 발명에 의한 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템(30)에서 채팅 서버(100)는 대화 제어부(110), 히스토리 스페이스(130), 히스토리 제어기(120), 광고 스페이스(140) 및 광고 스페이스 제어기(150)를 포함하며, RIA시스템(200)은 히스토리 분석 서버(210), 배너 검색 서버(220), 단어 DB(230), 배너 DB(240), 배너 제어 서버(250)및 배너 관리 서버(260)를 포함한다.

본 발명에서, 채팅서버(100)는 RIA시스템(200)과 분리되며, 대화 제어부(110)에 히스토리 제어기(120), 광고 스페이스(140), 광고스페이스 제어기(150)를 추가함으로써 RIA시스템(200)과 연결하여 이용할 수 있다. 예컨대, 이미 운영중인 기존의 채팅서버도 상기의 추가 작업으로 RIA시스템(200)과의 연동이 가능해진다.

대화 제어부(110)는 커뮤니티 시스템의 사용자(10)에게 대화 서비스를 제공하고 히스토리 스페이스(130)에 저장될 대화내용을 수집한다. 히스토리 제어기(120)는 대화 내용을 히스토리 스페이스(130)에 저장하며, 저장된 대화 내용은 대화창별로 RIA시스템(200)의 히스토리 분석 서버(210)로 전송됨과 동시에 임시 저장 공간인 히스토리 스페이스(130)를 초기화한다. 여기에서, 히스토리 스페이스(130)에서 히스토리 분석 서버(210)로의 전송방식은 선입선출(FIFO)방식을 사용한다. 히스토리 분석 서버(210)는 전달받은 대화내용을 비교 자료로서 축적되어 있는 단어 DB(230)를 통해 비교 분석하여 최적의 키워드를 추출하여 배너 검색 서버(220)에 전달한다. 단어 DB(230)는 자연어인 대화내용을 분석하기 위한 비교자료로서 문장, 구문, 단어, 형태소 등의 데이터와 연결 코드를 포함한다.

배너 검색 서버(220)는 배너 DB(240)에서 키워드에 상응하는 배너 광고들을 검출하여 그 배너 광고들의 식별코드, 우선순위값을 채팅서버(100)의 광고스페이스제어기(150)에 전송하며, 배너 DB(240)는 배너식별코드, 배너광고주소, 배너링크주소, 광고주 식별코드, 배너광고게재회수??게재시간??광고선택회수 등의 정보를 저장하게 된다.

광고스페이스 제어기(150)는 배너 검색 서버(220)에서 전송받은 배너 광고 식별코드를 우선순위값에 의해 목록화하고 순위대로 일정 주기 순환하며 광고스페이스(140)에 배너광고 식별코드에 해당하는 배너 광고를 전송해 줄 것을 요청하는 메시지를 송출한다.

배너 제어 서버(250)는 상기 배너 광고 요청 메세지를 수신하면 배너 광고를 전송하고, 전송이 완료되면 배너 DB(240)의 배너광고 식별코드에 해당하는 게재회수를 증가시키며 다음 배너 광고 요청 메세지를 수신할 때까지의 시간을 측정하여 배너 DB(240)의 배너광고 식별코드의 해당하는 게재 시간 기록 필드에 추가한다.

채팅서버(100)에서 광고스페이스(140)에 띄워진 배너 광고가 사용자(10)에 의해 선택되면 광고 스페이스 제어기(150)는 사용자(10)의 웹브라우저에 배너광고 식별코드에 해당하는 웹페이지를 연결해줄 것을 요청하는 웹페이지 요청 메시지를 RIA시스템(200)의 배너 제어 서버(250)로 송출한다.

배너 제어 서버(250)는 웹페이지 요청 메세지를 수신하면 배너 DB(240)의 검색을 통해 배너광고 식별코드에 해당하는 웹페이지를 연결해주며, 배너 DB(240)의 배너광고 식별코드에 해당하는 선택 회수를 갱신한다.

배너 관리 서버(260)는 배너 통계부(262), 배너 변경부(264), 및 배너상황모니터부(266)를 포함하는데, 배너

DB(240)의 게재수, 노출시간, 클릭수를 이용하여 배너 관리 서버(260)의 배너 통계부(262)는 배너 광고 가격을 포함한 통계 수치를 산출하며, 배너상황 모니터부(266)는 배너 통계부(262)에 의해 산출된 통계 수치를 광고주(40)에게 보여준다. 광고주(40)는 배너상황 모니터부(266)의 결과값을 바탕으로 새로운 배너 광고의 등록, 수정, 삭제를 배너 변경부(264)에 요청할수 있으며, 배너 변경부(264)는 광고주(40)의 요청에 의해 배너 DB(240)의 내용을 변경한다.

이하에서, 본 발명의 동작과정을 상세히 설명한다.

도 3은 본 발명의 일실시예에 따른 대화 내용을 이용한 배너 광고 제공 방법을 설명한 흐름도이다.

채팅서버(100)의 히스토리 제어기(120)는 사용자(10)의 대화내용을 히스토리 스페이스(130)에 저장한다(S310). 히스토리 제어기(120)는 히스토리 스페이스(130) 전체에 대화내용이 완전 수용됐는지 확인하고, 히스토리 제어기(120)는 RIA시스템(200)의 히스토리 분석 서버(210)로 히스토리 스페이스(130)에 저장된 대화내용을 전송함과 동시에 히스토리 스페이스(130)를 비운다(S320). 히스토리 분석 서버(210)는 전송된 히스토리를 단어DB(230)에 저장된 내용과 비교, 분석하여 최종 연관 키워드를 추출하여 배너 검색 서버(220)에 전송한다(S330).

배너 검색 서버(220)는 배너 DB(240)내의 전송된 키워드를 검색(S410)하여 검색된 레코드가 하나 이상일 경우 채팅서버(100)의 광고스페이스 제어기(150)에 배너식별코드와 우선순위값을 전달한다. 검색된 레코드가 없을 경우 배너 검색 서버(220)는 임의의 배너 광고를 선정하여 상기 과정을 진행한다(S430). 광고스페이스제어기(150)는 배너식별코드를 통해 RIA시스템(200)의 배너 제어 서버(250)에 배너 광고 요청 메세지를 송출하며, 전송된 배너광고 이미지가 채팅서버(100)의 광고스페이스제어기(150)에 의해 광고스페이스(140)로 출력된다(S420).

이때, RIA시스템(200)의 배너 제어 서버(250)는 배너 광고의 게재 빈도수와 게재 시간을 배너 DB(240)의 배너식별코드에 해당하는 기록 레코드에 더하게 된다(S440).

사용자(10)가 광고스페이스(140)에 출력된 배너 광고를 마우스 등을 이용하여 선택하면(S510), 광고스페이스 제어기(150)는 RIA시스템(200)의 배너 제어 서버(250)에 웹페이지 연결 요청 메세지를 배너식별코드와 함께 송출하며, 배너 제어 서버(250)는 배너 DB(240)의 배너식별코드에 해당하는 레코드에 선택 회수를 추가한 후(S520), 식별코드에 해당하는 배너 광고의 URL(Uniform Resource Locator)을 검색하여 사용자(10)의 웹브라우저에 전송함으로써, 최종적으로 사용자(10)에게 선택한 배너 광고의 웹페이지가 띄워지게 된다(S530).

도 4에 의해 본 발명의 동작 원리에 따른 통신 프로토콜을 개략적으로 설명하면, 사용자(10)는 채팅서버(100)에 대화내용을 제공하며, 채팅서버(100)는 일정 대화 내용을 주기적으로 RIA시스템(200)에 전달한다. RIA시스템(200)은 전달받은 대화내용을 분석함으로써 가장 적합한 배너 광고를 검색하여 채팅서버(100)에 검색된 배너 광고의 식별코드를 전달하며, 채팅서버(100)는 배너 식별코드를 우선순위값에 의해 분석함으로써 RIA시스템(200)에 배너 광고 요청 메시지를 송출하고 RIA시스템(200)은 그 식별코드에 해당하는 배너 광고를 채팅서버(100)에 전송한다. 사용자(10)가 배너 광고를 선택하면 채팅서버(100)는 선택된 배너 광고의 식별코드전송과 함께 웹페이지 연결 요청 메시지를 RIA시스템(200)에 송출하며 RIA시스템(200)은 식별코드에 해당하는 웹페이지의 URL을 채팅서버(100)에 전송하여, 채팅서버(100)는 전송된 URL을 사용자(10)의 브라우저에 띄우게 된다.

이상에서 본 발명에 대하여 그 바람직한 실시예를 중심으로 설명하였으나 이는 단지 예시일 뿐 본 발명을 한정하는 것이 아니며, 본 발명이 속하는 분야의 통상의 지식을 가진 자라면 본 발명의 본질적인 특성을 벗어나지 않는 범위에서 이상에 예시되지 않은 여러 가지의 변형과 응용이 가능함을 알 수 있을 것이다. 그리고 이러한 변형과 응용에 관계된 차이점들은 다음 청구범위에 규정한 본 발명의 범위에 포함될 것이다.

발명의 효과

본 발명에 의하면, 소비자 욕구에 대한 상세한 정보를 취득함으로써 특정 개별 상품의 광고가 가능해지며, 동시다발적인

기존의 일방적 광고 형태를 벗어나 소비자 중심의 광고를 제공함으로써, 효율적인 서비스를 제공하고 광고를 통한 판매 실적을 증가시킬 수 있다. 그리고 소비자의 취향 분석, 광고 효과 분석, 광고 비용 산정 등의 통계작업이 가능해져 수치에 근거한 과학적인 전자상거래행위가 예상된다.

(57) 청구의 범위

청구항 1. 네트워크상에 배너 광고를 푸시하는 광고 시스템에 있어서,

다자간의 대화 서비스를 제공하며, 대화 내용에 부합하는 배너 광고의 검색을 의뢰하고, 그 결과로 제공받은 배너 광고를 디스플레이하는 채팅 서버; 및

상기 채팅 서버로부터 의뢰 받은 상기 대화 내용을 분석하고 적합한 배너 광고를 검색하여 상기 채팅 서버로 전송하는 실시간 대화형 광고(RIA) 시스템을 포함하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템.

청구항 2. 제1항에 있어서, 상기 채팅 서버는

다수의 사용자 클라이언트들과 네트워킹하여 대화창을 통하여 상기 다수의 사용자 클라이언트들간의 대화내용을 제어하여 대화서비스를 제공하는 대화 제어부;

상기 대화 내용을 임시 저장하는 공간인 히스토리 스페이스;

상기 히스토리 스페이스에 저장된 대화 내용에 부합하는 배너광고의 검색을상기 RIA 시스템에 의뢰하는 히스토리 제어기;

배너광고가 디스플레이되는 임시 저장 공간인 광고 스페이스; 및

상기 RIA시스템에 의해 검색된 배너 광고들 중 선택된 배너광고의 전송을 요청하는 배너 광고 요청 메시지를 상기 RIA시스템으로 송출하고, 요청한 배너광고를 전송받아 상기 광고 스페이스에 디스플레이 제어하는 광고 스페이스 제어기를 포함하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템.

청구항 3. 제2항에 있어서, 상기 광고 스페이스 제어기는

상기 배너광고의 웹페이지로의 접속을 요청하는 웹페이지 요청 메시지를 송출하도록 제어하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템.

청구항 4. 제3항에 있어서, 상기 RIA 시스템은

비교 자료로서 축적되어있는 단어 DB;

상기 대화 내용을 상기 단어 DB에 저장된 단어들과 비교??분석하여 하나 이상의 키워드들을 추출하는 히스토리 분석서버;

하나 이상의 배너광고들의 정보 코드 및 웹페이지 주소, 광고주 식별 코드, 통계 수치 변화 정보가 기록되는 배너 DB;

상기 히스토리 분석서버에 의해 추출된 하나 이상의 키워드들을 통해 상기 배너 DB를 검색하여 상응하는 배너광고의 정보를 상기 광고 스페이스 제어기에 전송하는 배너검색서버;

상기 배너광고 요청 메시지 및 웹페이지 요청 메시지에 따라 대응하는 배너광고와 웹페이지를 상기 배너 DB에서 검색하여 상기 광고 스페이스 제어기로 전송하고, 배너 DB의 통계 수치 변화 정보를 갱신하는 배너 제어 서버; 및

상기 배너 DB의 통계 수치 변화 정보를 통계 처리하여 상기 배너 DB에 저장된 대응하는 광고주에게 제공하고, 하나 이상의 배너 광고들을 관리하는 배너관리서버를 포함하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템.

청구항 5. 제 4항에 있어서, 배너 관리 서버는

상기 배너 DB의 통계 수치 정보에 대한 통계값을 산출하는 배너 통계부;

상기 배너 통계부의 정보를 광고주에게 접속 관리하는 배너 상황 모니터부; 및

광고주의 요청에 의해 배너광고를 등록??수정??삭제하는 배너 변경부를 포함하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 시스템.

청구항 6. 네트워크상에 배너 광고를 푸시하는 광고 방법에 있어서,

(a) 대화 제어부로부터 대화내용을 제공받아 배너광고를 검색하기 위한 키워드를 추출하는 히스토리 분석 단계; 및

(b) 키워드 추출에 따라 해당하는 배너광고를 디스플레이 되도록 제어하되, 해당하는 키워드가 없으면 임의의 배너광고를 디스플레이 하도록 제어하는 배너광고 디스플레이 제어 단계를 포함하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 제공 방법.

청구항 7. 제6항에 있어서, 상기 (b)단계는

디스플레이 되는 배너광고의 게재 빈도, 게재 시간을 상기 배너 DB에 저장해 두는 단계를 더 구비하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 제공 방법.

청구항 8. 제6항에 있어서,

(c) 사용자에 의해 선택된 배너광고에 대응하는 배너 광고 웹페이지를 사용자 웹브라우저로 연결하는 단계를 더 포함함을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 제공 방법.

청구항 9. 제8항에 있어서,

상기 (c) 단계는 사용자에 의한 배너광고 선택 회수를 상기 배너 DB에 저장해 두는 단계를 더 구비하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 제공 방법.

청구항 10. 제8항에 있어서,

사용자에 의한 배너광고의 선택이 없는 경우, 대화 내용의 변화에 따라 다른 광고를 찾기 위한 상기 히스토리 분석 단계로 연결하여 초기화하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 방법.

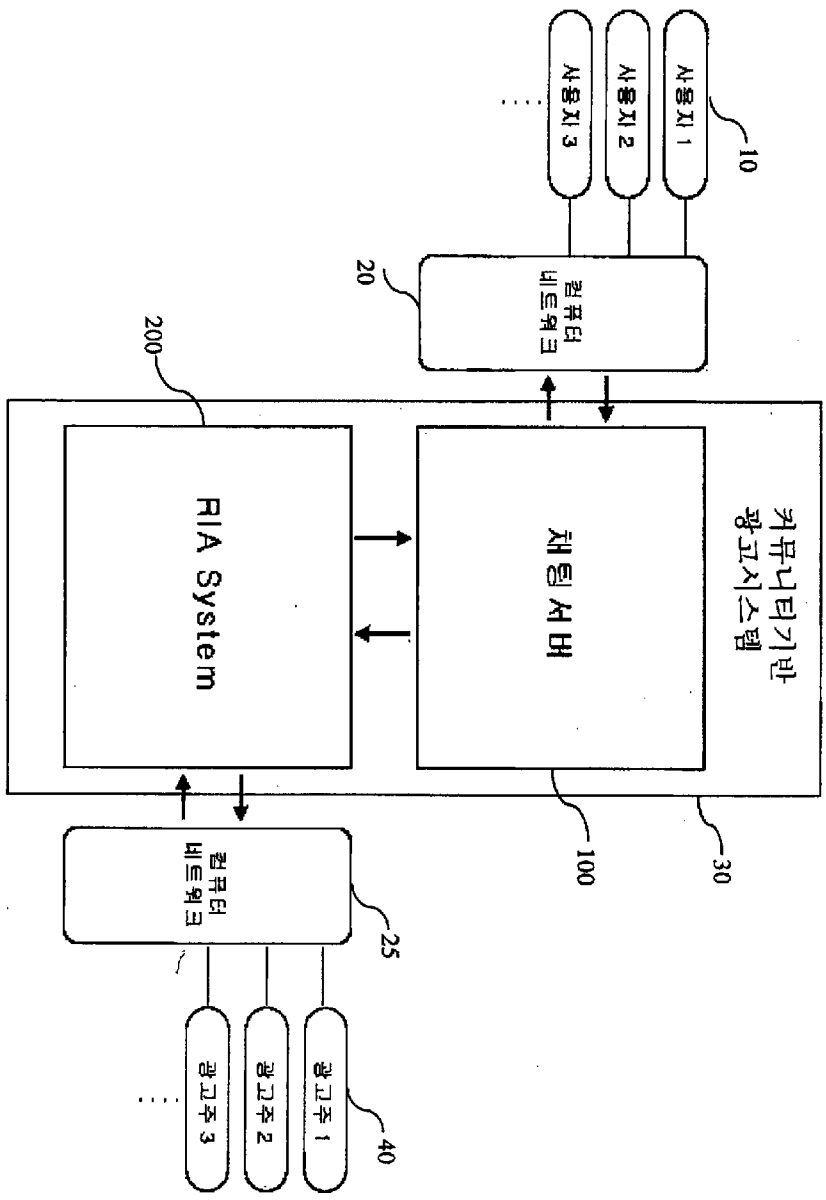
청구항 11. 제6항에 있어서,

(d)상기 배너 DB에 저장된 자료를 통계 처리하여 광고주에게 전송하고 광고주의 요청에 따라 배너광고를 등록, 수정, 삭

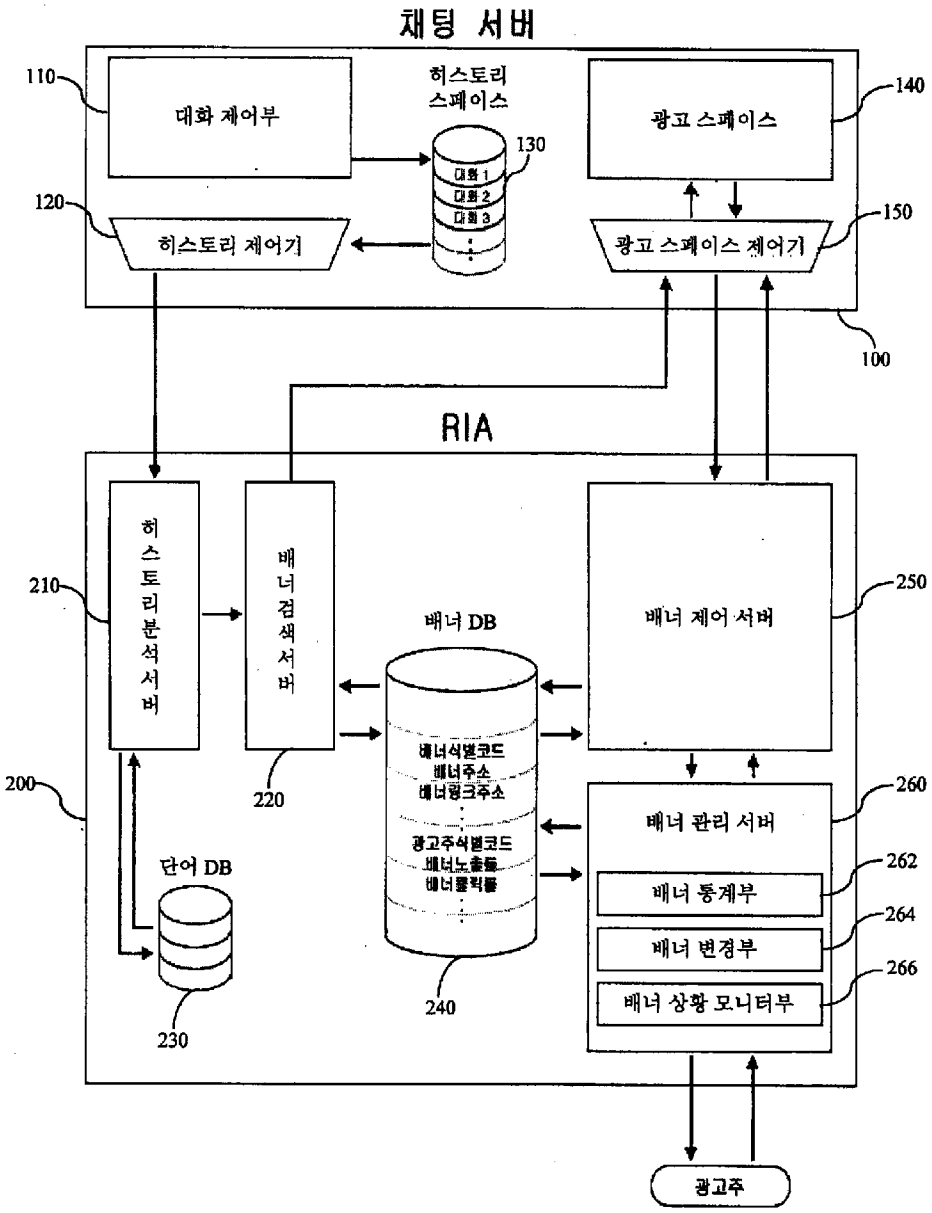
제하는 배너 광고 관리 단계를 더 포함하는 것을 특징으로 하는 인터넷상의 커뮤니티를 기반으로 하는 광고 제공 방법.

도면

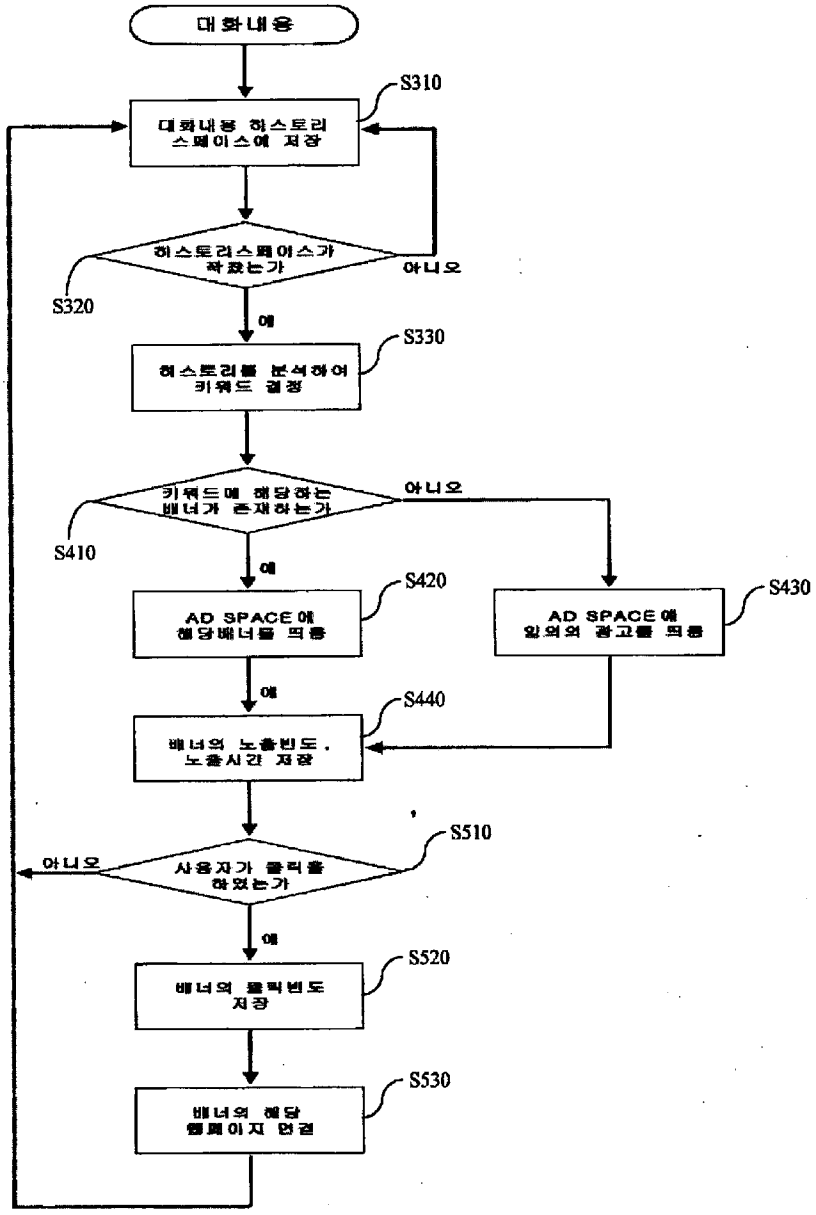
도면1



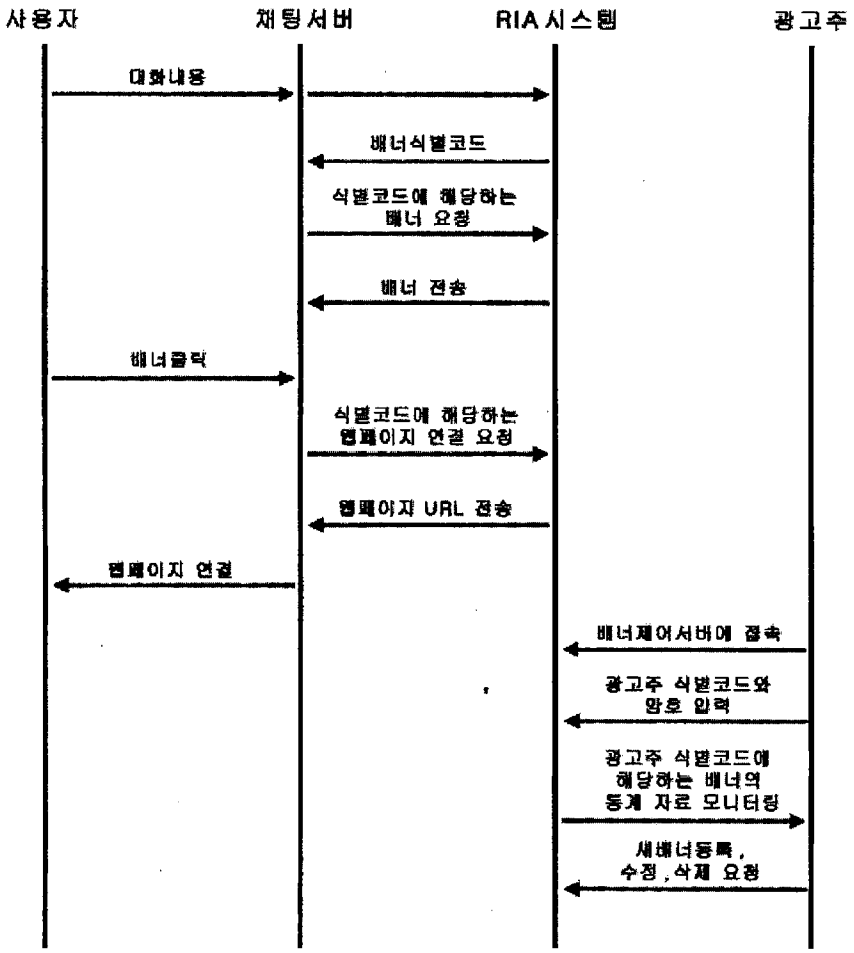
도면2


채팅 서버
110
대화 제어부
히스토리
스페이스
130
대화 1
대화 2
대화 3
140
광고 스페이스
120
히스토리 제어기
150
광고 스페이스 제어기
100
RIA
210
히스토리분석서버
배너검색서버
220
배너 DB
배너식별코드
배너주소
배너링크주소
광고주식별코드
배너노출율
배너클릭률
240
250
배너 제어 서버
260
배너 관리 서버
262
배너 통계부
264
배너 변경부
266
배너 상황 모니터부
200
단어 DB
230
광고주

도면3


대화내용
S310
대화내용 히스토리 스페이스에 저장
히스토리스페이스가 작았는가
S320
아니오
예
S330
히스토리를 분석하여 키워드 결정
키워드에 해당하는 배너가 존재하는가
S410
아니오
예
S420
AD SPACE에 해당배너를 의뢰
S430
AD SPACE에 임의의 광고를 의뢰
예
S440
배너의 노출빈도, 노출시간 저장
S510
아니오
사용자가 클릭을 하였는가
예
S520
배너의 클릭빈도 저장
S530
배너의 해당 웹페이지 연결

도면4


사용자
채팅서버
RIA 시스템
광고주
대화내용
배너식별코드
식별코드에 해당하는
배너 요청
배너 전송
배너클릭
식별코드에 해당하는
랜페이지 연결 요청
랜페이지 URL 전송
랜페이지 연결
배너제어서버에 접속
광고주 식별코드와
암호 입력
광고주 식별코드에
해당하는 배너의
통계 자료 모니터링
새배너등록,
수정,삭제 요청

METHOD FOR OFFERING ELECTRONIC COMMERCE SERVICE BY USING THREE DIMENSIONAL VR AND COMPUTER READABLE MEDIA FOR RECORDING IMPLEMENTATION PROGRAM

Publication number:	KR20020068682
Publication date:	2002-08-28
Inventor:	LEE MIN KYU (KR)
Applicant:	LEE MIN KYU (KR)
Classification:	
- International:	***G06F19/00;*** **G06F19/00;** (IPC1-7): G06F19/00
- European:	
Application number:	KR20010008885 20010222
Priority number(s):	KR20010008885 20010222

Report a data error here

Abstract of **KR20020068682**

PURPOSE: An electronic commerce service method is provided to construct and store images of commodities as requested by an advertiser, to enable a user to edit or manage three dimensional virtual space, to search for an image of a commodity or an object, and to decorate the virtual space with the searched image so that other users can visit the virtual space and purchase the commodity at the virtual space. CONSTITUTION: The method comprises steps of a service provider(10) constructing a user(20) management database, an advertiser(30) management database, and a commodity management database, the service provider(10) offering a community space and an avatar to an authenticated user, the service provider(10) enabling the user(20) to search for commodity data of the advertiser(30) which can be applied to the community space or the avatar, the service provider(10) mapping the searched commodity data at the community space or the avatar, the service provider(10) allowing other users to visit the constructed community space, the visiting users selectively searching for or extracting the commodity data mapped at the community space or the avatar, and the service provider(10) enabling the visiting users to purchase the commodity at an electronic commerce site(40) connected to the service provider(10) over the internet.

Data supplied from the ***esp@cenet*** database - Worldwide

(19) 대한민국특허청(KR)
(12) 공개특허공보(A)

(51) 。Int. Cl. [7]
G06F 19/00A0

(11) 공개번호 특2002- 0068682
(43) 공개일자 2002년08월28일

(21) 출원번호 10- 2001- 0008885
(22) 출원일자 2001년02월22일

(71) 출원인 이민규
경기도 용인시 역북동 세인원룸 B동 401호

(72) 발명자 이민규
경기도 용인시 역북동 세인원룸 B동 401호

(74) 대리인 류완수
제갈혁
이광복
조진수

심사청구 : 있음

(54) 3차원 가상 현실을 이용한 전자상거래 사업 방법 및 이를구현할 수 있는 프로그램이 수록된 컴퓨터로 읽을 수 있는기록매체

요약

본 발명은 3차원 가상 현실을 이용한 전자상거래 사업 방법 및 이를 구현할 수 있는 프로그램이 수록된 컴퓨터로 읽을 수 있는 기록매체에 관한 것이다. 본 발명은, (a)사업자가 회원 등록한 이용자 및 광고주의 등록 정보와 광고주의 의뢰에 따른 상품 정보를 웹 서버와 연동되는 데이터베이스로 구축하는 단계; (b)사업자는 사업자의 서버에 접속하여 회원으로 인증된 이용자에게 커뮤니티 공간 및 아바타를 제공하는 단계; (c)사업자는 이용자가 상기 커뮤니티 공간 및 아바타에 적용시킬 수 있는 3차원 영상으로 구현된 광고주의 상품 정보를 검색 및 추출할 수 있도록 하는 단계; 및 (d)사업자는 이용자가 추출한 상품을 커뮤니티 공간 및 아바타에 매핑시킬 수 있도록 하여 자신만의 커뮤니티 공간을 구축할 수 있도록 하는 단계;를 포함하여 진행하는 것을 특징으로 한다. 본 발명에 따르면, 통신 네트워크를 이용하여 서비스 사업자의 서버에 접속한 이용자가 3차원 커뮤니티 공간 및 아바타를 광고주의 상품으로 데코레이션함으로서, 광고주는 이용자의 커뮤니티 공간을 통한 최적의 광고를 이용자에게 제공할 수 있는 효과가 있다.

대표도
도 1

색인어

3차원, 가상, 전자, 상거래, 기록매체

명세서

도면의 간단한 설명

도 1은 본 발명에 따른 사업 방법의 구성 주체를 설명하기 위한 네트워크 구성도이다.

도 2는 본 발명에 따른 사업 방법에서 사업자와 이용자간의 데이터 송/수신 모델을 설명하기 위한 네트워크 구성도이다.

도 3은 본 발명에 따른 사업 방법에서 사업자가 서버 시스템에 구축한 데이터베이스 구축도이다.

도 4는 본 발명에 따른 사업 방법에서 이용자가 사업자의 서버에 접속하여 필요한 서비스 정보를 선택하는 과정의 일실시예를 나타내는 흐름도이다.

도 5는 본 발명에 따른 사업 방법에서 이용자가 자신의 아바타를 편집하는 과정의 일실시예를 나타내는 흐름도이다.

도 6은 본 발명에 따른 사업 방법에서 이용자가 자신의 커뮤니티 공간을 편집하는 과정의 일실시예를 나타내는 흐름도이다.

도 7은 본 발명에 따른 사업 방법에서 이용자가 자신 또는 등록 회원의 커뮤니티 공간을 이용하는 과정의 일실시예를 나타내는 흐름도이다.

도 8은 본 발명에 따른 사업 방법에서 상품을 주문하는 과정의 일실시예를 나타내는 흐름도이다.

< < 도면의 주요 부분에 대한 부호의 설명> >

10...서비스 사업자11...웹 서버

11a...응용 프로그램12...전자상거래 서버

13...3차원가상공간 서버14...무선 서비스 서버

15...데이터베이스 서버16...데이터베이스

20...이용자30...광고주

40...전자상거래 사업자50...인터넷

발명의 상세한 설명

발명의 목적

발명이 속하는 기술 및 그 분야의 종래기술

본 발명은 3차원 가상 현실을 이용한 전자상거래 사업 방법 및 이를 구현할 수 있는 프로그램이 수록된 컴퓨터로 읽을 수 있는 기록매체에 관한 것으로서, 보다 상세하게는 서비스 사업자는 광고주의 의뢰에 따른 3차원 상품 및 물품을 제작 및 저장하고, 통신 네트워크를 이용하여 서비스 사업자의 서버에 접속한 이용자가 3차원 가상 공간에 커뮤니티(community)를 구축할 수 있도록 하고, 구축된 3차원 가상 공간과 자신의 아바타(avatar)를 데코레이션(decoration)할

수 있는 광고주의 상품 및 물품을 검색 및 추출할 수 있도록 하고, 구축된 3차원 공간에 통신 네트워크를 이용하여 접속한 다른 이용자가 아바타를 이용한 커뮤니티 정보 이용 및 광고주의 상품을 구매를 할 수 있도록 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법 및 이를 구현할 수 있는 프로그램이 수록된 컴퓨터로 읽을 수 있는 기록매체에 관한 것이다.

종래의 커뮤니티 사이트들은 홈페이지 제공 및 동아리/클럽의 제공을 통해 회원을 확보하고 기 확보된 회원에게 커뮤니티 성향과 부합되는 다양한 광고를 전달하고 있다. 커뮤니티 사이트의 운영자는 기 확보된 회원에게 커뮤니티 사이트 운영자와 제휴한 전자상거래 사이트 또는 경매 사이트 등의 접속을 유도하는 형태로 수익 창출을 모색하고 있다.

그러나, 기존의 커뮤니티 사이트 운영자는 2차원적인 웹 페이지의 구조로 이용자에게 서비스를 제공할 수 있는 내용이 포화 상태에 이르렀다. 이에 따라, 기존의 커뮤니티 사이트 운영자는 2차원적인 웹 페이지의 구조를 3차원으로 구현하였으나 속도의 저하, 가상 공간의 엉성한 구현, 컨텐츠 개발의 미흡 등으로 전자상거래를 통한 수익 창출이 더욱 어려워졌으며 이로 인해 커뮤니티의 운영 필요성 자체에 대한 의구심까지 발생하게 되었다. 또한, 전자상거래 사업자는 기존의 커뮤니티에 의존하지 않는 독자적인 대책, 예를 들어 이벤트 행사, 마일리지 부여, 가격 파괴 및 대규모 공동 구매 등을 강구하였으나, 이용자의 욕구를 충족시키기에는 많은 한계가 있으며, 문제의 해결에 대한 대안이 되지 못하는 실정이다.

또한, 종래의 커뮤니티 사이트는 커뮤니티와 전자상거래의 조화가 적절히 이루어지지 않는다는 문제점을 드러내고 있다. 왜냐하면, 이용자가 컨텐츠 및 서비스를 이용할 수 있도록 하는 기존의 2차원적인 커뮤니티의 웹 페이지 구조, 사용툴 또는 이용자 인터페이스는 이용자에게 흥미를 유발시키는데 한계 상황에 처해 있기 때문이다.

따라서, 종래의 커뮤니티 사이트는 회원 확보에 따른 수익 구조 만으로는 사업성에 비젼이 없으므로, 제휴 사이트의 광고 수익을 통한 사업을 모색하고 있으며, 회원 확보를 통한 수익 구조 이외에도 제휴 사이트의 유치를 통한 수익 구조의 입지를 확고히 하지 않으면 안될 상황으로 발전하고 있다.

종래의 2차원적인 커뮤니티 웹 페이지의 문제점을 해결하기 위하여 3차원 가상 공간을 구현한 사이트는 미리 제작 및 삽입된 3차원 공간의 커뮤니티, 광고 또는 정보를 이용자에게 일방적으로 제공하는 방식이므로, 이용자는 자신에게 할당된 3차원 영역을 자신의 취향에 맞도록 데코레이션할 수 없는 문제점이 있다. 따라서, 이용자가 3차원 공간의 커뮤니티 공간 또는 쇼핑몰 공간을 확보하더라도 자신의 정보, 상품 및 광고를 3차원 가상 공간 내에 포함되는 입체 형상으로 제작할 수 없으며 텍스트 형식으로만 표현해야 하는 문제점이 있다.

최근 들어, 인터넷 인구의 급속한 증가와 정보 기술의 빠른 발전은 웹 기반의 그래픽 기술과 3차원 영상 기술을 급속도로 발전시키고 있다. 또한, 가상 현실감 VR(Virtual Reality) 또는 VRML(Virtual Reality Markup Language)을 이용한 3차원 기법이 발전하고 있는 추세이다. 여기서, 가상 현실감 VR 또는 VRML은 인터넷 상에서 3차원 세계를 가상적으로 기술하기 위하여 개발된 3차원 구현 방법 및 언어로서 현실에 구애받지 않고 사이버 공간에 현실과 같은 건축물이나 동물 및 조형물 등을 만들어 내어 이용자 자신이 마치 그 곳에 있는 듯한 착각에 빠지게 할 수 있다.

따라서, 통신 네트워크 상에서 이용자가 서비스 사업자에 의해 제공되는 3차원 공간 상에 커뮤니티 또는 쇼핑몰 구축할 수 있도록 하고, 구축된 공간 및 아바타를 3차원으로 구현된 상품으로 데코레이션함으로서, 다른 이용자가 기 구축된 3차원 공간에서 커뮤니티 활동 또는 상품 쇼핑 및 구매 등을 할 수 있도록 하는 노력이 계속되어 왔으며, 이를 토대로 본 발명을 착안하게 되었다.

발명이 이루고자 하는 기술적 과제

본 발명이 이루고자 하는 기술적 과제는 전술한 종래의 커뮤니티 사이트의 문제점을 해결하는데 있으며, 이러한 문제를 해결하기 위해서, 서비스 사업자는 광고주의 의뢰에 따른 3차원 영상으로 구현된 상품 및 물품을 제작 및 저장하고, 통신 네트워크를 이용하여 서비스 사업자의 서버에 접속한 이용자가 3차원 가상 공간에 커뮤니티 공간을 편집 및 관리할 수 있도록 하고, 광고주의 상품 및 물품을 검색 및 추출할 수 있도록 하고, 추출된 광고주의 상품을 자신의 아바타 또는 3차원 커뮤니티 공간 상에 매핑 또는 비치할 수 있도록 하여 자신의 3차원 커뮤니티 공간에 방문한 다른 이용자가 상품 쇼핑 및 구매를 할 수 있도록 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법 및 이를 구현할 수 있는 프로그램이 수록된 컴퓨터로 읽을 수 있는 기록매체를 제공하는데 그 목적이 있다.

발명의 구성 및 작용

전술한 목적을 달성하기 위한 본 발명에 따른 사업 방법은, 사업자가 3차원 영상으로 구현된 커뮤니티 공간, 아바타 및 상품 정보를 관리하는 서버 시스템을 운용하고, 사업자의 서버 시스템에 통신 네트워크를 통하여 접속한 이용자에게 커뮤니티 공간의 편집 및 관리를 할 수 있도록 하는 사업 방법이다. 구체적으로, 본 발명에 따른 사업 방법은, (a) 사업자가 회원 등록한 이용자 및 광고주의 등록 정보와 광고주의 의뢰에 따른 상품 정보를 웹 서버와 연동되는 데이터베이스로 구축하는 단계; (b) 상기 사업자는 사업자의 서버에 접속하여 회원으로 인증된 이용자에게 커뮤니티 공간 및 아바타를 제공하는 단계; (c) 상기 사업자는 이용자가 상기 커뮤니티 공간 및 아바타에 적용시킬 수 있는 3차원 영상으로 구현된 광고주의 상품 정보를 검색 및 추출할 수 있도록 하는 단계; 및 (d) 상기 사업자는 이용자가 추출한 상품을 커뮤니티 공간 및 아바타에 매핑시킬 수 있도록 하여 자신만의 커뮤니티 공간을 구축할 수 있도록 하는 단계;를 포함하여 진행하는 것을 특징으로 한다.

이때, 상기 (d) 단계 이후에, (e) 상기 사업자는 상기 구축된 커뮤니티 공간에 회원 등록한 다른 이용자가 방문할 수 있도록 하는 단계; (f) 상기 사업자는 상기 방문한 다른 이용자가 커뮤니티 공간 및 아바타에 매핑된 상품을 선택적으로 검색 및 추출할 수 있도록 하는 단계; 및 (g) 상기 사업자는 상기 다른 이용자가 선택적으로 추출한 상품을 주문할 수 있도록 하는 단계;를 더 포함하여 진행하는 것이 바람직하다.

여기서, 상기 (a) 단계의 상품 정보는 아바타에 매핑 가능하고, 커뮤니티 공간에 데코레이션 및 비치가 가능한 의류용품, 액세서리 용품, 가구용품, 인테리어 용품, 배달용품, 화장품, 생활용품, 식료품, 서적, 멀티미디어 용품, 가전제품, 자동차, 장난감, 건강용품, 사무용품 및 그외 유사 항목 중 선택된 어느 하나 이상의 3차원 상품 이미지 정보인 것이 바람직하다.

또한, 상기 (a) 단계의 상품은 전자상거래 가능한 물품 또는 정보인 것이 바람직하다.

이와 더불어, 상기 (a) 단계의 상품 정보는 광고주가 운영하는 웹 사이트 또는 상품 관련 사이트와 링크되는 것이 바람직하다.

이때, 상기 (c) 단계의 사업자가 아바타에 적용시킬 수 있는 상품 정보를 검색 및 추출할 수 있도록 하는 단계는, (c11) 사업자는 이용자에게 상품 이미지가 매핑될 아바타의 신체 부위를 선택할 수 있도록 하는 단계; (c12) 상기 사업자는 이용자가 아바타의 신체 부위에 매핑될 상품 이미지의 검색 조건을 선택적으로 입력할 수 있도록 하는 단계; (c13) 상기 사업자는 이용자가 입력한 검색 조건에 따른 상품 이미지 정보를 웹 서버와 연동되는 데이터베이스에서 추출하고, 이용자에게 상기 추출된 상품 이미지 정보의 리스트를 디스플레이하는 단계; 및 (c14) 상기 사업자는 이용자가 리스트에 포함된 상품 이미지 중 선택된 어느 하나의 상품 이미지 정보를 추출할 수 있도록 하는 단계;를 포함하여 진행하는 것이 바람직하다.

여기서, 상기 (c12) 단계의 검색 조건은 아바타의 신체 부위에 매핑될 계층적 카테고리로 상세하게 용도 및 종류가 분류된 상품의 이미지 정보를 선택적으로 추출할 수 있도록 하는 것이 바람직하다.

이때, 상기 (c)단계의 사업자가 커뮤니티 공간에 적용시킬 수 있는 상품 정보를 검색 및 추출할 수 있도록 하는 단계는, (c21)사업자는 이용자에게 상품 이미지가 매핑될 커뮤니티 공간의 성향, 용도 및 종류에 따른 건축물의 내/외부 구조를 선택할 수 있도록 하는 단계; (c22)상기 사업자는 이용자가 건축물의 내/외부 구조에 매핑될 상품 이미지의 검색 조건을 선택적으로 입력할 수 있도록 하는 단계; (c23)상기 사업자는 이용자가 입력한 검색 조건에 따른 상품 이미지 정보를 웹 서버와 연동되는 데이터베이스에서 추출하고, 이용자에게 상기 추출된 상품 이미지 정보의 리스트를 디스플레이하는 단계; 및 (c24)상기 사업자는 이용자가 리스트에 포함된 상품 이미지 중 선택된 어느 하나의 상품 이미지 정보를 추출할 수 있도록 하는 단계;를 포함하여 진행하는 것이 바람직하다.

여기서, 상기 (c22)단계의 검색 조건은 건축물의 내/외부 구조에 매핑 또는 비치될 계층적 카테고리로 상세하게 용도 및 종류가 분류된 상품의 이미지 정보를 선택적으로 추출할 수 있도록 하는 것이 바람직하다.

이때, 상기 (e)단계는, (e1)사업자는 이용자에게 등록된 커뮤니티 공간의 검색 조건을 선택적으로 입력할 수 있도록 하는 단계; (e2)상기 사업자는 이용자가 입력한 검색 조건에 따른 등록 커뮤니티 공간의 정보를 웹 서버와 연동되는 데이터베이스에서 추출하고, 이용자에게 추출된 등록 커뮤니티 공간의 리스트를 디스플레이하는 단계; 및 (e3)상기 사업자는 이용자가 리스트에 포함된 등록 커뮤니티 공간 중 어느 하나의 등록 커뮤니티 공간을 선택할 수 있도록 하는 단계;를 포함하여 진행하는 것이 바람직하다.

여기서, 상기 (e1)단계의 검색 조건은 등록 커뮤니티 공간의 종류별, 용도별, 등록일별, 등록자 신상별 및 그외 유사 항목에 따라 선택적으로 등록 커뮤니티 공간을 추출할 수 있도록 하는 것이 바람직하다.

이때, 상기 (f)단계는, (f1)사업자는 커뮤니티 공간에 방문한 다른 이용자가 상품을 선택할 수 있도록 하는 단계; 및 (f2)상기 사업자는 상기 방문한 다른 이용자에게 선택된 상품의 상세 정보를 디스플레이하는 단계;를 포함하여 진행하는 것이 바람직하다.

여기서, 상기 (f1)단계의 상품 선택은 아바타에 매핑된 상품 이미지를 선택하거나, 건축물 내/외부에 매핑 또는 비치된 상품 이미지를 선택함으로서 구현 가능한 것이 바람직하다.

또한, 상기 (f2)단계의 상세 정보는 상품의 3차원 이미지 정보, 상품 코드, 상품 가격, 상품 특징, 상품 제조사 및 그외 유사 항목 중 선택된 어느 하나 이상의 항목을 포함하는 것이 바람직하다.

여기서, 상기 사업자가 웹 상에 구축하는 데이터베이스는 회원 등록 정보 데이터베이스, 가상 공간 정보 데이터베이스, 상품 정보 데이터베이스, 상품 상거래 정보 데이터베이스, 3차원 가상 공간 정보 데이터베이스, 3차원 상품 정보 데이터베이스, 회원 주문 정보 데이터베이스, 주문 물품 배송 정보 데이터베이스 및 그외 유사 데이터베이스 중 선택된 어느 하나 이상의 데이터베이스를 포함하여 구축되는 것이 바람직하다.

한편, 상기 3차원 가상 현실을 이용한 전자상거래 사업 방법을 수행할 수 있는 프로그램이 수록된 컴퓨터로 읽을 수 있는 기록매체에 의해 본 발명의 목적이 달성될 수 있다.

상기와 같은 본 발명의 3차원 가상 현실을 이용한 전자상거래 사업 방법은 서버 컴퓨터로 읽을 수 있는 기록매체에 저장될 수 있다. 이러한 기록매체는 컴퓨터 시스템에 의하여 읽혀질 수 있도록 프로그램 및 데이터가 저장되는 모든 종류의 기록매체를 포함한다. 그 예로는, 롬(Read Only Memory), 램(Random Access Memory), CD(Compact Disk) - Rom, DVD(Digital Video Disk) - Rom, 자기 테이프, 플로피 디스크, 광데이터 저장장치등이 있다. 또한, 이러한 기록매체는 네트워크로 연결된 컴퓨터 시스템에 분산되어, 분산 방식으로 컴퓨터가 읽을 수 있는 코드가 저장되고 실행될 수 있다.

이하, 본 발명을 구체적으로 설명하기 위해 실시예를 들어 설명하고, 발명에 대한 이해를 돕기 위해 첨부 도면을 참조하여 상세하게 설명하기로 한다. 그러나, 본 발명에 따른 실시예들은 여러 가지 다른 형태로 변형될 수 있으며, 본 발명의 범위가 아래에서 상술하는 실시예들에 한정되는 것으로 해석되어지지 않아야 한다. 본 발명의 실시예들은 당업계에서 평균적인 지식을 가진 자에게 본 발명을 보다 완전하게 설명하기 위해서 제공되어지는 것이다.

도 1은 본 발명에 따른 사업 방법의 구성 주체를 설명하기 위한 네트워크 구성도이다.

도 1에 도시된 바에 따르면, 상기 사업자(10)는 네트워크 구성 주체들(20 내지 40)에게 제공할 3차원 가상 현실을 이용한 전자상거래 서비스를 제공하기 위한 정보가 저장되어 있는 데이터베이스와 상기 데이터베이스와 연동되는 다수개의 서버들을 운용한다.

여기서, 상기 사업자(10)는 서비스를 제공하기 위한 다수개의 서버를 포함하는 서버 시스템 전체를 감시 및 제어한다. 또한, 상기 사업자(10)는 서버 시스템을 통한 다른 네트워크 구성 주체(20 내지 40)와의 연결을 실행하여 네트워크 구성 주체들(20 내지 40)에게 서비스 정보, 응용 프로그램 및 서비스 관련 화일 등과 같은 데이터 자원을 공유할 수 있도록 한다.

한편, 상기 이용자(20), 광고주(30) 및 전자상거래 사업자(40)는 소정의 인터넷 접속 수단을 이용하여 통신 네트워크망, 바람직하게는 인터넷(50)을 통해 사업자(10)와 서버/클라이언트 관계를 형성한다.

여기서, 상기 사업자(10)는 회원 확보 및 네트워크 구성 주체(20 내지 40)간의 서비스 정보 송/수신을 위하여 네트워크 구성 주체들(20 내지 40)의 회원 등록 정보, 커뮤니티 공간 정보, 아바타 정보 및 상품 정보 등을 웹 서버와 연동되는 데이터베이스에 구축한다. 이때, 상기 사업자(10)는 이용자(20)에게 커뮤니티 공간을 할당하여 개인이 관리할 수 있도록 한다.

또한, 상기 사업자(10)는 이용자(20)에게 커뮤니티 정보와 커뮤니티 성향과 매칭되는 상품 정보를 제공하고, 광고주(30)에게 의뢰 광고에 따른 상품 이미지를 3차원화하여 이용자(20)가 구축하는 커뮤니티 공간 및 아바타에 적용시킬 수 있도록 한다. 이때, 상기 사업자(10)는 광고주(30)로 부터 상품 정보를 온/오프라인 상으로 제공받아 상품의 3차원 이미지를 자체 제작하고, 제작된 상품 이미지 정보를 웹 서버와 연동되는 데이터베이스에 구축한다.

여기서, 상기 사업자(10)에 의해 제작된 상품의 3차원 이미지는 이용자(20)의 커뮤니티 공간 및 아바타에 매핑 또는 비치된다. 또한, 상기 매핑 또는 비치된 상품 이미지는 이용자가 개설한 커뮤니티 공간을 방문한 다른 이용자가 상품의 이미지를 선택하면 상품의 상세 정보를 볼 수 있도록 광고주(30)가 운영하는 웹 사이트 또는 상품 관련 사이트와 링크된다.

이와 더불어, 상기 사업자(10)는 통신 네트워크망, 바람직하게는 인터넷(50)을 통하여 사업자(10)의 웹 서버에 접속한 이용자(20)가 아바타 및 커뮤니티 공간의 편집과 커뮤니티 공간을 이용한 전자상거래 활동을 할 수 있도록 한다. 이때, 상기 사업자(10)는 이용자(20)가 웹 상에서 상기 편집 및 전자상거래를 실행할 수 있도록 웹 응용 프로그램(본 실시예에서는 CGI, ASP 및 PHP 등) 및 3차원 응용 프로그램과 연동되는 웹 페이지를 전송하거나, 상기 응용 프로그램을 이용자(20)의 단말기에 탑재시킬 수 있도록 한다.

여기서, 상기 이용자(20)는 개인 웹 운영자, 동아리를 운영하는 관리자 또는 상거래를 목적으로 커뮤니티 공간을 운영하는 관리자로서 사업자로 부터 제공받은 커뮤니티 공간을 편집 및 운영한다.

여기서, 상기 광고주(30)는 광고를 목적으로 하는 물품 또는 상품 정보(본 실시예에서는 상품 내역 및 상품 이미지)를 사업자(10)에게 온/오프라인 상으로 제공하는 네트워크 구성 주체이다. 이때, 상기 광고주(30)는 사업자(10)와 미리 사업 제휴함으로서 상품 정보를 통신 네트워크를 통해 실시간으로 사업자(10)에게 전송할 수 있음은 당업자에게 자명하다.

여기서, 상기 전자상거래 사업자(40)는 이용자(20)가 사업자가 제공하는 서비스를 이용함에 있어서 다양한 전자상거래 활동을 할 수 있도록 하는 전자상거래 웹 페이지를 제공한다.

이때, 상기 네트워크 구성 주체들(20 내지 40)은 사업자(10)와의 정보 송/수신을 위해 유/무선 단말기를 이용하여 통신 네트워크를 통해 사업자(10)의 서버 시스템에 접속 가능하다. 또한, 상기 정보 송/수신을 위한 통신 네트워크는 전용 회선망, 인터넷망, 공중 전화망 및 공중 데이터망 등을 이용하여 구축 가능하다.

도 2는 본 발명에 따른 사업 방법에서 사업자와 이용자간의 데이터 송/수신 모델을 설명하기 위한 네트워크 구성도이다.

도 2에 도시된 바에 따르면, 사업자(10)는 웹 서버(11), 상기 웹 서버(11)의 메모리에 탑재 가능한 응용 프로그램(11a), 전자상거래 서버(12), 3차원 가상 공간 서버(13), 무선 서비스 서버(14), 데이터베이스 서버(15) 및 상기 데이터베이스 서버(15)와 연동되는 데이터베이스(16)를 운용하고, 무선 단말기(21) 또는 유선 단말기(22)를 이용하는 이용자(20)는 소정의 인터넷 접속 수단을 이용하여 통신 네트워크망, 바람직하게는 인터넷(50)을 통해 사업자(10)와 서버/클라이언트 관계를 형성한다.

이때, 상기 유/무선 단말기(21 내지 22)는 유/무선 PC, 휴대폰 및 PDA(Personal Digital Assistant) 등을 포함하는 인터넷(50)에 접속 가능한 수단이다.

여기서, 상기 도 2의 실시예에서는 사업자(10)와 데이터 송/수신을 하는 네트워크 구성 주체로 이용자(20)만을 설명하였으나, 상기 네트워크의 구성 주체로 사업을 보조하거나 별도의 전문적인 서비스를 제공할 수 있는 제휴업체가 더 포함되어 인터넷(50)에 접속될 수 있으며, 상기 사업자(10)의 데이터베이스 서버(15)에 연동되는 데이터베이스(16)로 제휴 업체의 정보가 더 구축될 수 있음은 자명하다.

여기서, 상기 웹 서버(11)는 TCP/IP 프로토콜에 따른 데이터 패킷을 송/수신할 수 있게 해주는 네트웍 인터페이스를 포함하며, 상기 네트웍 인터페이스를 통해 인터넷(50)에 접속될 수 있게 해 주는 허브 및 라우터와 연동될 수 있다.

또한, 본 발명에 따른 사업을 구현하기 위해 네트워크 구성 주체들은 네트워크 접속 인터페이스 및 웹 브라우저를 탑재한 시스템을 활용하여 사업자(10)의 웹 서버(11)에 접속하여 사업자(10)가 제공하는 서비스 정보의 송/수신을 할 수 있음은 당업자에게 자명하다.

여기서, 상기 응용 프로그램(11a)는 웹 서버(11)의 기억 장치에 저장되어 있으며, 본 발명에 따른 사업 방법을 구현함에 있어서, 상기 웹 서버(11)의 제어 장치는 기억 장치에 액세스하여 응용 프로그램(12)을 실행시키고, 응용 프로그램(11a)과 연동하는 웹 페이지를 이용자(20)에게 전송함으로서, 이용자(20)가 커뮤니티 공간의 구축, 아바타 제작 및 전자상거래 활동을 할 수 있도록 한다.

이때, 상기 사업자(10)는 응용 프로그램(11a) 중 3차원 응용 프로그램을 이용자(20)의 단말기에 탑재시킬 수 있도록 함으로서, 이용자(20)가 사업자(10)의 웹 서버(11)에 접속하여 커뮤니티 공간의 구축, 아바타 제작 및 전자상거래 활동 등을 용이하게 할 수 있도록 한다.

여기서, 상기 전자상거래 서버(12)는 사업자(10)와 이용자(20)간의 전자상거래 관련 정보를 관리 및 제어하고, 정보 이용, 정보 제공, 상품 주문, 상품 결제 및 물류 배송에 관한 상거래 정보를 처리한다. 또한, 상기 전자상거래 서버(12)는 금융 결제원 서버와 연동되어 금융 정보를 공유할 수 있도록 한다.

여기서, 상기 3차원 가상 공간 서버(13)는 3차원 가상 공간과 관련된 정보를 관리 및 제어하고, 상기 공간에 상품을 매핑 및 비치할 수 있도록 한다.

여기서, 상기 무선 서비스 서버(14)는 HTML(HyperText Markup Language) 포맷의 웹페이지를 휴대형 개인 정보 단말기(PDA) 및 휴대전화 등 이동단말기용 WML(Wireless Markup Language) 포맷 등의 웹페이지로 변환해 준다.

여기서, 상기 데이터베이스 서버(15)는 네트워크 구성 주체들이 제공한 정보 및 사업자(10) 자신이 구축한 정보를 데이터베이스(16)에 저장하고, 네트워크 구성 주체들이 사업자(10)의 웹 서버(11)에 접속하여 사업자(10)가 제공하는 서비스 정보를 요구하면, 요구 정보에 대한 답변 자료를 인터액티브하게 제공한다.

도 3은 본 발명에 따른 사업 방법에서 사업자가 서버 시스템에 구축한 데이터베이스 구축도이다.

도 3에 도시된 바에 따르면, 사업자가 구축한 데이터베이스 서버와 연동되는 데이터베이스(16)는 회원 등록 정보 데이터베이스(16a), 가상 공간 정보 데이터베이스(16b), 상품 정보 데이터베이스(16c), 상품 상거래 정보 데이터베이스(16d), 3차원 가상 공간 정보 데이터베이스(16e), 3차원 상품 정보 데이터베이스(16f), 회원 주문 정보 데이터베이스(16g) 및 주문 물품 배송 정보 데이터베이스(16h) 등이 포함되도록 구축될 수 있다.

이때, 상기 데이터베이스(16a 내지 16h)는 신규, 갱신, 추가 및 삭제가 가능하며, 네트워크 구성 주체 중 사업 제휴한 업체와 정보를 공유할 수 있음은 자명하다. 또한, 상기 사업자는 데이터베이스(16)를 이용하여 차후 새로운 업무 영역의 확대를 이룰 수 있으며, 기 확보된 회원 등록 정보 및 상품 정보 등을 이용하여 부가적인 사업 확장을 시도할 수 있다.

여기서, 상기 데이터베이스(16)에 구축되는 데이터는 관계형 데이터베이스, 분산 데이터베이스 및 객체 지향 데이터베이스 등의 구조로 구축될 수 있으며, 특히 본 발명의 실시예에서는 확장성이 용이한 관계형 데이터베이스를 활용하는 것이 바람직하나 이에 한정되는 것은 아니다.

여기서, 회원 등록 정보 데이터베이스(16a)는 사업자의 웹 서버에 접속한 본 발명의 네트워크 구성 주체에 대해 사업자가 요구한 정보가 저장된다. 바람직한 실시예로, 이용자, 광고주 및 전자상거래 사업자 등의 보안 인증 정보(본 실시예에서는 로그인 ID 및 패스워드 등), 신상/업체 정보(본 실시예에서는 성명, 상호명, 주민 등록 번호, 사업자 등록 번호, 주소 및 연락처 등), 서비스 이용 횟수 정보, 주문 횟수 정보, 결제 정보(본 실시예에서는 이용 횟수, 카드 번호, 계좌 번호, 미결제 금액 및 예치금 잔액 등) 등으로 구성된다.

여기서, 가상 공간 정보 데이터베이스(16b)는 사업자가 이용자에게 제공하는 가상 공간과 관련된 정보가 저장된다. 바람직한 실시예로, 종류별 건축물 정보(본 실시예에서는 주택 공간 정보, 아파트 공간 정보, 빌딩 공간 정보 및 야외 구조물 공간 정보 등), 용도별 건축물 정보(본 실시예에서는 거주용 구조물 공간 정보, 산업용 구조물 공간 정보, 교육용 구조물 공간 정보, 쇼핑용 구조물 공간 정보, 상가용 구조물 공간 정보 및 스포츠용 구조물 공간 정보 등) 등으로 구성된다.

여기서, 상품 정보 데이터베이스(16c)는 사업자가 이용자에게 제공하는 상품 정보가 저장된다. 바람직한 실시예로, 의류 용품 정보(본 실시예에서는 남성복, 속옷, 잠옷, 스포츠 의류, 신발, 아동복, 여성복, 유아복 및 전통 의상 등), 액세서리 용품 정보(본 실시예에서는 시계, 액세서리 소품 및 보석류 등), 가구용품 정보(본 실시예에서는 벽지, 사무용 가구, 소파, 의자, 유아용 가구, 장, 침구, 침장, 카페트, 테이블 및 식탁 등), 인테리어 용품 정보(본 실시예에서는 조명 및 장식품 등), 배달용품 정보(본 실시예에서는 꽃, 선물 및 상품권 등), 화장품 정보, 생활용품 정보(본 실시예에서는 가전제품, 공구류, 세제류, 수공예품, 애완 동물 용품, 욕실 용품, 재봉 용품, 자동차 용품 및 주방용품 등), 식료품 정보(본 실시예에서는 건강 보조 식품, 농산물, 수산물, 빵 및 유제품 등), 서적 정보, 멀티미디어 용품 정보(본 실시예에서는 비디오, 악기, 음반, 예술품 및 수집품 등), 가전제품 정보(본 실시예에서는 생활 가전, 소형 가전, 오디오, 비디오, 주방가전, 광학기기 및 통신기기 등), 자동차 정보, 장난감 정보, 건강용품 정보 및 사무용품 정보 등으로 구성된다.

여기서, 상품 상거래 정보 데이터베이스(16d)는 사업자가 이용자에게 제공하는 상품의 상세 정보가 저장된다. 바람직한 실시예로, 상품 등록 정보(본 실시예에서는 상품 코드, 가격, 물량, 특징 및 제조사 등) 등으로 구성된다.

여기서, 3차원 가상 공간 정보 데이터베이스(16e)는 사업자가 이용자에게 제공하는 3차원 가상 공간의 정보가 저장된다. 바람직한 실시예로, 가상 공간 등록 정보, 노드 정보, 3차원 위치 정보 및 3차원 회전 정보 등으로 구성된다.

여기서, 3차원 상품 정보 데이터베이스(16f)는 사업자가 이용자에게 제공하는 상품의 3차원 이미지 정보가 저장된다. 바람직한 실시예로, 상품 코드 정보, 상품 3차원 이미지 정보, 상품 2차원 이미지 정보, 상품 맵소스 이미지 정보 및 상품 크기 정보 등으로 구성된다.

여기서, 회원 주문 정보 데이터베이스(16g)는 사업자의 웹 서버에 접속한 이용자에게 사업자가 요구한 주문 정보와 관련된 정보가 저장된다. 바람직한 실시예로, 회원 정보, 주문 상품 정보, 주문 수량 정보, 주문일 정보, 주문 상품 수령 요망일 정보 및 가격 정보 등으로 구성된다.

여기서, 주문 물품 배송 정보 데이터베이스(16h)는 이용자가 주문한 상품을 배송지로 운송하기 위한 정보가 저장된다. 바람직한 실시예로, 물품 배송지 주소, 주문 상품 물량 정보 및 수령자 정보 등으로 구성된다.

도 4는 본 발명에 따른 사업 방법에서 이용자가 사업자의 서버에 접속하여 필요한 서비스 정보를 선택하는 과정의 일실시예를 나타내는 흐름도이다.

도 4에 도시된 바에 따르면, 이용자는 사업자가 제공하는 서비스를 제공받기 위하여 통신 네트워크를 통해 사업자의 웹 페이지에 접속(S11)한다.

이어서, 상기 이용자는 사업자가 제공하는 서비스를 이용하기 위하여 회원 인증 정보를 입력하면, 상기 사업자는 상기 회원 인증 정보가 정확한지를 판단(S12)한다.

여기서, 상기 사업자는 별도의 회원 로그인이나 보안 인증의 수행 유무에 상관없이 차별화된 서비스를 제공할 수 있으며, 차후에 사업자의 필요에 따라 상기 회원 로그인이나 보안 인증 절차를 수행한 이용자에게만 모든 서비스를 제공할 수 있음은 자명하다.

이어서, 상기 회원 인증 정보의 정확 여부를 판단하는 단계(S12) 이후에, 상기 이용자가 회원 로그인 정보를 입력하지 않았거나 오류가 발생했으면, 사업자는 회원 등록을 위한 보안 인증 정보 및 신상 정보 등을 요구하여 회원 등록(S13)시키며, 상기 등록된 회원 정보는 사업자의 웹 서버에 연동되는 회원 등록 정보 데이터베이스에 저장되고, 사업자는 이용자에게 서비스 이용 항목을 선택할 수 있는 메인 페이지를 디스플레이(S14)한다.

이어서, 상기 메인 페이지를 디스플레이하는 단계(S14) 이후에, 상기 이용자가 메인 페이지의 이용 항목들 중 어느 하나를 선택(S15)하면, 사업자는 이용자가 선택한 이용 항목을 디스플레이(S16)한다.

여기서, 상기 이용자가 이용할 수 있는 항목은 아바타 편집 항목, 커뮤니티 공간 편집 항목, 커뮤니티 공간 이용 항목 및 관련 정보 이용 항목 등으로 구성되어 있다.

계속해서, 상기 선택 항목 디스플레이 단계(S16) 이후에, 이용자는 다른 이용 항목을 선택할 것인지를 판단(S17)하여 다른 이용 항목을 선택하고자 한다면 이용 항목을 선택하는 단계(S15)로 리턴하고, 다른 이용 항목을 이용하지 않는다면 서비스를 종료한다.

도 5는 본 발명에 따른 사업 방법에서 이용자가 자신의 아바타를 편집하는 과정의 일실시예를 나타내는 흐름도이다.

도 5에 도시된 바에 따르면, 이용자가 도 4의 이용 항목 선택 단계(S15)에서 아바타 편집 항목을 선택(S21)하면, 사업자는 아바타를 편집할 수 있도록 하는 웹 페이지를 이용자에게 디스플레이(S22)한다.

이때, 상기 웹 페이지는 이용자에 의해 아바타의 편집이 실행될 수 있도록 하는 응용 프로그램과 연동된다. 여기서, 상기 웹 페이지는 이용자가 아바타의 신체를 선택할 수 있도록 하는 신체 조건의 선택에 따른 아바타의 신체 이미지 추출 및 상기 추출된 아바타의 신체 이미지에 매핑될 상품의 3차원 이미지를 추출할 수 있도록 하는 이용자 인터페이스를 포함한다.

여기서, 상기 이용자 인터페이스는 이용자가 아바타의 신체 이미지 및 상품의 3차원 이미지의 검색 조건을 입력할 수 있도록 하는 검색 입력창과 검색에 따른 이미지를 디스플레이하는 디스플레이창을 포함한다.

이어서, 상기 웹 페이지가 디스플레이되는 단계(S22) 이후에, 이용자는 자신이 필요로 하는 최적의 아바타 신체 이미지를 편집(S23)한다. 이때, 사업자는 이용자가 아바타의 신체 부위별 이미지를 선택적으로 추출할 수 있도록 하고, 상기 추출된 이미지를 조합하여 아바타를 완성시킬 수 있도록 한다.

계속해서, 상기 아바타의 신체 이미지를 편집하는 단계(S23) 이후에 사업자는 이용자가 아바타에 매핑될 상품 이미지를 선택적으로 추출할 수 있도록 한다.

이때, 상기 사업자는 이용자가 아바타의 신체 부위에 적합하게 어울리는 신체 부위별 상품 이미지와 상기 상품의 용도별 이미지를 선택적으로 추출할 수 있도록 한다. 여기서, 상기 사업자는 이용자가 아바타의 신체 부위에 매핑될 상품 이미지의 검색 조건을 선택적으로 입력할 수 있도록 하는 검색창을 제공할 수 있음은 당업자에게 자명하다. 또한, 상기 사업자는 이용자가 선택적으로 추출한 이미지 정보를 웹 서버와 연동되는 데이터베이스에서 추출한다.

여기서, 이용자가 아바타의 신체 부위에 매핑될 상품 이미지를 추출하는 일예로, 이용자가 아바타의 신체 부위 중 손 부분을 매핑할 상품을 선택한다면, 사업자는 이용자에게 아바타의 손 부위를 매핑시킬 수 있는 액세서리(본 실시예에서는 반지, 팔찌, 시계 및 유사 항목 등)의 상품 이미지를 추출할 수 있도록 한다. 다른 실시예로, 이용자가 아바타의 신체 부위 중 상체 부분을 매핑할 상품을 선택한다면, 사업자는 이용자에게 아바타의 상체 부위를 매핑시킬 수 있는 의류 및 액세서리 등의 상품 이미지를 추출할 수 있도록 한다. 여기서, 상기 아바타에 매핑되는 상품 이미지는 전자상거래 가능한 물품 또는 컨텐츠 정보이다. 또한, 상기 이용자 또는 사업자의 서비스를 이용하는 회원 등록된 다른 이용자가 상품 이미지를 선택(본 실시예에서는 마우스로 클릭)하면, 사업자는 이용자가 선택한 상품을 구매 또는 주문할 수 있도록 광고주가 운영하는 웹 사이트, 상품 관련 사이트 또는 상품 상세 정보창을 디스플레이한다.

이어서, 상기 아바타에 매핑될 상품 이미지를 추출하는 단계(S24) 이후에 사업자는 이용자가 추출한 상품 이미지를 아바타에 매핑(S25)시킬 수 있도록 한다. 이때, 상기 사업자는 이용자가 상품 이미지를 매핑시킨 아바타의 3차원 이미지를 디스플레이한다.

계속해서, 상기 이용자는 상품 이미지가 적용된 아바타가 자신의 성향과 일치하는지를 판별하여 적용 상품 이미지를 변경할 것인가를 판단(S26)한다. 이때, 이용자가 상기 적용 상품 이미지를 변경하고자 하면 아바타에 매핑될 상품 이미지를 추출하는 단계(S24)로 리턴하고, 상기 적용 상품 이미지를 변경시키지 않으면 아바타의 편집을 완료(S27)한다. 여기서, 상기 사업자는 이용자가 편집 완료한 아바타의 이미지를 웹 서버와 연동되는 데이터베이스에 구축한다.

이어서, 상기 아바타의 편집을 완료한 이후에 이용자는 다른 이용 항목을 선택할 것인지를 판단(S28)한다. 이때, 상기 이용자가 다른 이용 항목을 선택하고자 한다면 상기 도 4의 이용 항목을 선택하는 단계(S15)로 리턴(S29)하고, 다른 이용 항목을 이용하지 않는다면 서비스를 종료한다.

도 6은 본 발명에 따른 사업 방법에서 이용자가 자신의 커뮤니티 공간을 편집하는 과정의 일실시예를 나타내는 흐름도이다.

도 6에 도시된 바에 따르면, 이용자가 도 4의 이용 항목 선택 단계(S15)에서 커뮤니티 공간 편집 항목을 선택(S31)하면, 사업자는 커뮤니티 공간을 편집할 수 있도록 하는 웹 페이지를 이용자에게 디스플레이(S32)한다.

이때, 상기 웹 페이지는 이용자에 의해 커뮤니티 공간의 편집이 실행될 수 있도록 하는 응용 프로그램과 연동된다. 여기서, 상기 커뮤니티 공간은 3차원 가상 공간으로서 이용자의 성향을 반영할 수 있는 공간이다. 또한, 상기 커뮤니티 공간은 건축물의 내/외부 구조로 디스플레이된다. 또한, 상기 웹 페이지는 이용자가 상기 건축물의 내/외부 구조를 종류 및 용도에 따라 선택할 수 있도록 하고, 상기 선택된 건축물의 내/외부로 구현되는 이미지에 매핑 또는 비치될 상품의 3차원 이미지를 추출할 수 있도록 하는 이용자 인터페이스를 포함한다.

여기서, 상기 이용자 인터페이스는 이용자가 커뮤니티 공간을 편집하기 위한 건축물의 내/외부 및 상기 내/외부 이미지에 적용될 상품의 3차원 이미지의 검색 조건을 입력할 수 있도록 하는 검색 입력창과 검색에 따른 이미지를 디스플레이하는 디스플레이창을 포함한다.

이어서, 상기 웹 페이지가 디스플레이되는 단계(S22) 이후에, 이용자는 자신의 성향에 맞는 커뮤니티 공간의 이미지를 편집하기 위해 건축물의 종류 및 용도에 따른 건축물의 내/외부 이미지를 선택(S33 내지 S34)한다.

이때, 상기 사업자는 이용자가 건축물의 내/외부 이미지를 선택적으로 추출할 수 있도록 하는 검색창을 제공할 수 있으며, 상기 사업자는 이용자가 선택적으로 추출한 이미지 정보를 웹 서버와 연동되는 데이터베이스에서 추출한다.

여기서, 이용자가 상기 종류에 따른 건축물의 내/외부 이미지를 추출하는 일예로, 이용자가 건축물의 내/외부 이미지 중 일반 주택의 이미지를 선택하면, 사업자는 일반 주택을 세분화한 한옥, 양옥, 아파트 및 빌라 등의 이미지를 추출할 수 있도록 한다. 다른 실시예로, 이용자가 건축물의 내/외부 이미지 중 야외 구조물 공간의 이미지를 선택하면, 사업자는 야외 구조물 공간을 세분화한 공원, 경기장, 수영장 및 위락 시설 등의 이미지를 추출할 수 있도록 한다.

계속해서, 상기 건축물의 내/외부 이미지를 선택하는 단계(S33 내지 S34) 이후에 사업자는 이용자가 건축물의 내/외부 이미지에 매핑 또는 비치될 상품 이미지를 선택적으로 추출(S35)할 수 있도록 한다.

이때, 상기 사업자는 이용자가 건축물의 특성에 적합한 상품 이미지를 선택적으로 추출할 수 있도록 한다. 여기서, 상기 상품 이미지를 추출하는 일예로, 이용자가 일반 주택의 거실에 적용할 상품을 선택한다면, 사업자는 이용자에게 상기 거실에 매핑 또는 비치시킬 수 있는 상품 이미지(본 실시예에서는 가구용품, 인테리어 용품, 생활용품, 서적, 멀티미디어 용품 및 가전제품 등)를 추출할 수 있도록 한다. 다른 실시예로, 이용자가 빌딩의 옷 매장에 적용할 상품을 선택한다면, 사업자는 이용자에게 상기 옷 매장에 매핑 또는 비치시킬 수 있는 의류용품 이미지(본 실시예에서는 남성복, 속옷, 잠옷, 스포츠 의류, 신발, 아동복, 여성복, 유아복 및 전통 의상 등)를 추출할 수 있도록 한다.

여기서, 상기 건축물의 내/외부에 매핑되는 상품 이미지는 전자상거래 가능한 물품 또는 컨텐츠 정보이다. 또한, 상기 이용자 또는 사업자의 서비스를 이용하는 회원 등록된 다른 이용자가 상품 이미지를 선택하면, 사업자는 이용자가 선택한 상품을 구매 또는 주문할 수 있도록 광고주가 운영하는 웹 사이트, 상품 관련 사이트 또는 상품 상세 정보창을 디스플레이한다.

이어서, 상기 건축물의 내/외부에 매핑될 상품 이미지를 추출하는 단계(S35) 이후에 사업자는 이용자가 추출한 상품 이미지를 건축물의 내/외부 이미지에 적용(S36)시킬 수 있도록 한다. 이때, 상기 사업자는 이용자가 상품 이미지를 매핑시킨 건축물의 내/외부 이미지를 디스플레이한다.

계속해서, 상기 이용자는 상품 이미지가 적용된 건축물의 내/외부 이미지가 자신의 성향과 일치하는지를 판별하여 적용 상품 이미지를 변경할 것인가를 판단(S37)한다. 이때, 이용자가 상기 적용 상품 이미지를 변경하고자 하면 건축물의 내/외부에 매핑될 상품 이미지를 추출하는 단계(S35)로 리턴하고, 상기 적용 상품 이미지를 변경시키지 않으면 커뮤니티 공간의 편집을 완료(S38)한다. 여기서, 상기 사업자는 이용자가 편집 완료한 건축물의 내/외부 이미지를 웹 서버와 연동되는 데이터베이스에 구축한다.

이어서, 상기 커뮤니티 공간의 편집을 완료한 이후에 이용자는 다른 이용 항목을 선택할 것인지를 판단(S39)한다. 이때, 상기 이용자가 다른 이용 항목을 선택하고자 한다면 상기 도 4의 이용 항목을 선택하는 단계(S15)로 리턴(S40)하고, 다른 이용 항목을 이용하지 않는다면 서비스를 종료한다.

도 7은 본 발명에 따른 사업 방법에서 이용자가 자신 또는 등록 회원의 커뮤니티 공간을 이용하는 과정의 일실시예를 나타내는 흐름도이다.

도 7에 도시된 바에 따르면, 이용자가 도 4의 이용 항목 선택 단계(S15)에서 커뮤니티 공간 이용 항목을 선택(S41)하면, 사업자는 웹 상에서 아바타를 통한 커뮤니티 활동 및 전자상거래 활동을 할 수 있도록 하는 웹 페이지를 이용자에게 디스플레이(S42)한다.

이때, 상기 웹 페이지는 이용자에 의해 아바타를 통한 커뮤니티 활동 및 전자상거래 활동을 실행할 수 있도록 하는 3차원 응용 프로그램과 연동된다.

이어서, 상기 웹 페이지가 디스플레이되는 단계(S42) 이후에, 사업자는 이용자가 등록 커뮤니티 공간을 선택(S43)할 수 있도록 한다. 이때, 상기 이용자는 자신이 구축한 커뮤니티 공간을 선택할 것인지 또는 회원들이 구축해 놓은 커뮤니티 공간을 선택할 것인지를 판별(S44)한다.

여기서, 상기 이용자가 자신이 구축해 놓은 커뮤니티 공간을 선택한다면, 사업자는 이용자가 구축한 커뮤니티 공간을 디스플레이(S45)한다. 이어서, 상기 사업자는 이용자가 커뮤니티 공간의 수정 및 편집을 할 수 있도록 하거나, 상기 커뮤니티 공간에서 상품 쇼핑 및 상품 구매 활동을 할 수 있도록 하는 커뮤니티 공간의 관리(S46)를 할 수 있도록 한다. 이때, 상기 상품 쇼핑 및 상품 구매는 이용자가 자신의 아바타를 이용하여 커뮤니티 공간에 따른 건축물 내/외부 이미지 및 아바타 이미지에 매핑 또는 비치된 상품 이미지를 선택함으로서 구현 가능하다.

한편, 상기 이용자가 회원들이 구축해 놓은 커뮤니티 공간을 선택한다면, 사업자는 등록된 커뮤니티 공간을 이용자의 성향에 맞게 추출할 수 있도록 검색 입력창을 제공한다. 이때, 이용자는 상기 검색 입력창에 자신의 성향에 맞는 등록 커뮤니티 공간을 선택적으로 추출하기 위해 커뮤니티 공간의 종류, 용도, 등록일 및 등록자 신상 중 선택된 어느 하나 이상의 항목에 따른 검색 조건을 입력(S47)한다.

이어서, 상기 사업자는 이용자가 입력한 검색 조건에 따른 커뮤니티 공간 리스트를 디스플레이(S48)한다. 여기서, 상기 이용자가 등록 커뮤니티 공간을 추출하는 일예로, 이용자가 공간의 종류 중 빌딩을 선택하고 공간의 용도 중 상가를 선택하면, 상기 사업자는 빌딩 구조물에 입접한 상가의 커뮤니티 공간 리스트를 웹 서버에 연동되는 데이터베이스에서 추출한다.

계속해서, 상기 이용자는 사업자가 제공한 커뮤니티 공간 리스트 중 최적의 커뮤니티 공간을 선택(S49)한다. 그러면, 상기 사업자는 이용자가 선택한 커뮤니티 공간을 디스플레이(S50)한다.

그런 다음, 상기 사업자는 상기 커뮤니티 공간에서 채팅, 상품 쇼핑 및 상품 구매 활동 등의 커뮤니티 공간 이용(S51)을 할 수 있도록 한다. 이때, 상기 채팅은 동일 공간에서 활동하는 다른 이용자와 자신의 아바타를 이용하여 텍스트 입력함으로서 구현 가능하고, 상기 상품 쇼핑 및 상품 구매는 이용자가 자신의 아바타를 이용하여 커뮤니티 공간에 따른 건축물 내/외부 이미지 및 아바타 이미지에 매핑 또는 비치된 상품 이미지를 선택함으로서 구현 가능하다.

한편, 상기 커뮤니티 공간 관리 단계(S46) 또는 커뮤니티 공간 이용 단계(S51) 이후에 이용자는 다른 이용 항목을 선택할 것인지를 판단(S52)한다. 이때, 상기 이용자가 다른 이용 항목을 선택하고자 한다면 상기 도 4의 이용 항목을 선택하는 단계(S15)로 리턴(S53)하고, 다른 이용 항목을 이용하지 않는다면 서비스를 종료한다.

도 8은 본 발명에 따른 사업 방법에서 상품을 주문하는 과정의 일실시예를 나타내는 흐름도이다.

도 8에 도시된 바에 따르면, 상기 이용자가 자신이 구축한 커뮤니티 공간 또는 회원들이 구축해 놓은 커뮤니티 공간에서 상품을 선택(S61)한다. 이때, 상기 상품의 선택은 이용자가 자신의 아바타를 이용하여 커뮤니티 공간에 따른 건축물 내/외부 이미지 및 아바타 이미지에 매핑 또는 비치된 상품 이미지를 선택(본 실시예에서는 마우스로 클릭)함으로서 구현 가능하다.

이어서, 상기 사업자는 이용자가 선택한 상품의 상세 정보를 디스플레이한다. 이때, 상기 상품의 상세 정보는 상품의 3차원 이미지, 상품 코드, 상품 가격, 상품 특징, 상품 판매사 및 상품 제조사 등의 정보를 포함한다.

이때, 상기 이용자는 사업자가 제공하는 상품의 상세 정보를 본 후, 다른 상품을 선택할 것인지를 판단(S63)한다. 여기서, 상기 이용자가 다른 상품을 선택한다면 상품을 선택하는 단계(S61)로 리턴하고, 다른 상품을 선택하지 않는다면 선택한 상품을 주문할 것인지를 판단(S64)한다. 이때, 상기 이용자가 선택 상품을 주문하지 않는다면 상품 선택을 종료하고, 선택 상품을 주문한다면 사업자에게 주문을 요구한다.

계속해서, 상기 이용자가 사업자에게 상품 주문을 요구하면, 상기 사업자는 이용자에게 주문 정보 입력 시트를 제공한다. 이때, 상기 주문 정보 입력 시트는 이용자가 상품의 수량, 코드 번호, 결제 정보, 신상 정보 및 특이 사항 등을 입력할 수 있도록 한다.

그런 다음, 상기 이용자가 상기 주문 정보 입력 시트를 작성(S65)하고, 상기 주문 정보 입력 시트에 입력한 정보가 정확한가를 판단(S66)한다. 이때, 상기 이용자는 주문 정보 입력 시트에 입력한 정보가 정확하지 않으면 입력 시트 작성 단계(S65)로 리턴하고, 주문 정보 입력 시트에 입력한 정보가 정확하면 주문을 완료(S67)한다.

전술한 본 발명에서는 회원제로 운영하면서, 일정한 회원비를 징수하거나, 제공되는 정보에 따라 차등화된 요금을 부과하며, 전문 서비스를 제공하면서 발생되는 수익도 본 발명에 따른 사업의 수익원으로 예상될 수 있다.

이상에서 설명된 본 발명의 최적 실시예들이 개시되었다. 하지만, 본 발명에 따른 기술적 사상은 본 발명이 속한 기술 분야에서 통상의 지식을 가진 자에 의하여 다양한 변형이나 응용이 가능하다. 따라서, 사업자는 이용자가 구축한 3차원 영상으로 구현된 커뮤니티 영역 또는 웹 영역을 다른 서비스 사업자의 웹 사이트에 삽입할 수 있음은 당업자에게 자명하다.

예를 들어, 상기 이용자가 3차원 이미지로 구현되는 3차원 커뮤니티 공간을 사업자가 제공하는 웹 영역내에 구축한 이후, 상기 구축된 웹 영역을 다른 서비스 사업자가 제공하는 웹 영역(본 실시예에서는 다른 서비스 사업자가 운용하는 커뮤니티 사이트, 오락 사이트, 쇼핑 사이트, 생활 정보 사이트 및 그외 유사 사이트 등의 웹 영역) 내에 링크, 게시 및 삽입할 수 있도록 한다. 이때, 상기 이용자 또는 서비스 사업자는 자신이 구축한 3차원 커뮤니티 공간을 다른 서비스 사업자의 웹 영역에 링크, 게시 및 삽입시켜 자신의 커뮤니티 공간에 대한 회원 확보, 상기 회원 확보를 통한 전자상거래 활성화, 서비스 사업자의 사업 영역 확장 및 서비스 사업자의 회원 확보 도모 등을 꾀할 수 있다.

본 발명에서는 특정한 용어들이 사용되었으나, 이는 단지 본 발명을 설명하기 위한 목적에서 사용된 것이지 의미 한정이나 특허 청구 범위에 기재된 본 발명의 범위를 제한하기 위해 사용된 것이 아니다.

발명의 효과

본 발명에 따르면, 통신 네트워크를 이용하여 서비스 사업자의 서버에 접속한 이용자가 3차원 커뮤니티 공간 및 아바타를 광고주의 상품으로 데코레이션함으로서, 광고주는 이용자의 커뮤니티 공간을 통한 최적의 광고를 이용자에게 제공할 수 있는 효과가 있다.

그리고, 커뮤니티의 대표적인 홈페이지와 동아리 모임등을 3차원 가상 공간으로 표현할 수 있고, 기존의 거부감을 주었던 상품 광고를 입체감을 부여하여 자연스럽게 디스플레이할 수 있고, 이용자 자신이 웹 페이지내에 삽입할 수 있는 3차원 광고 상품 이미지를 3차원 가상 공간에 배치할 수 있도록 하는 효과가 있다.

또한, 본 발명은 3차원 가상 공간이라는 새로운 체계의 제공을 통해 서비스 사업자의 서버에 접속한 이용자에게 만족도를 높여 줄 수 있고, 전자상거래 사업자에게는 자연스럽게 이용자에게 다가가는 광고 효과를 제공할 수 있는 장점이 있다.

이와 더불어, 본 발명은 상품 이미지가 배치되는 3차원 가상 공간을 이용자 또는 전자상거래 사업자에게 제공함으로서 광고 효과와 상품 판매 기능을 통한 수익 창출의 범위를 최대화하는 효과가 있다.

(57) 청구의 범위

청구항 1.

사업자가 3차원 영상으로 구현된 커뮤니티 공간, 아바타 및 상품 정보를 관리하는 서버 시스템을 운용하고, 사업자의 서버 시스템에 통신 네트워크를 통하여 접속한 이용자에게 커뮤니티 공간의 편집 및 관리를 할 수 있도록 하는 사업 방법에 있어서,

(a) 사업자가 회원 등록한 이용자 및 광고주의 등록 정보와 광고주의 의뢰에 따른 상품 정보를 웹 서버와 연동되는 데이터베이스로 구축하는 단계;

(b) 상기 사업자는 사업자의 서버에 접속하여 회원으로 인증된 이용자에게 커뮤니티 공간 및 아바타를 제공하는 단계;

(c) 상기 사업자는 이용자가 상기 커뮤니티 공간 및 아바타에 적용시킬 수 있는 3차원 영상으로 구현된 광고주의 상품 정보를 검색 및 추출할 수 있도록 하는 단계; 및

(d) 상기 사업자는 이용자가 추출한 상품을 커뮤니티 공간 및 아바타에 매핑시킬 수 있도록 하여 자신만의 커뮤니티 공간을 구축할 수 있도록 하는 단계;를 포함하여 진행하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 2.

제1항에 있어서,

상기 (d) 단계 이후에, (e) 상기 사업자는 상기 구축된 커뮤니티 공간에 회원 등록한 다른 이용자가 방문할 수 있도록 하는 단계;

(f) 상기 사업자는 상기 방문한 다른 이용자가 커뮤니티 공간 및 아바타에 매핑된 상품을 선택적으로 검색 및 추출할 수 있도록 하는 단계; 및

(g) 상기 사업자는 상기 다른 이용자가 선택적으로 추출한 상품을 주문할 수 있도록 하는 단계;를 더 포함하여 진행하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 3.

제1항에 있어서,

상기 (a) 단계의 상품 정보는 아바타에 매핑 가능하고, 커뮤니티 공간에 데코레이션 및 비치가 가능한 의류용품, 액세서리 용품, 가구용품, 인테리어 용품, 배달용품, 화장품, 생활용품, 식료품, 서적, 멀티미디어 용품, 가전제품, 자동차, 장난감, 건강용품, 사무용품 및 그외 유사 항목 중 선택된 어느 하나 이상의 3차원 상품 이미지 정보인 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 4.

제1항에 있어서,

상기 (a) 단계의 상품은 전자상거래 가능한 물품 또는 정보인 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 5.

제1항에 있어서,

상기 (a)단계의 상품 정보는 광고주가 운영하는 웹 사이트 또는 상품 관련 사이트와 링크되는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 6.

제1항에 있어서,

상기 (c)단계의 사업자가 아바타에 적용시킬 수 있는 상품 정보를 검색 및 추출할 수 있도록 하는 단계는, (c11)사업자는 이용자에게 상품 이미지가 매핑될 아바타의 신체 부위를 선택할 수 있도록 하는 단계;

(c12)상기 사업자는 이용자가 아바타의 신체 부위에 매핑될 상품 이미지의 검색 조건을 선택적으로 입력할 수 있도록 하는 단계;

(c13)상기 사업자는 이용자가 입력한 검색 조건에 따른 상품 이미지 정보를 웹 서버와 연동되는 데이터베이스에서 추출하고, 이용자에게 상기 추출된 상품 이미지 정보의 리스트를 디스플레이하는 단계; 및

(c14)상기 사업자는 이용자가 리스트에 포함된 상품 이미지 중 선택된 어느 하나의 상품 이미지 정보를 추출할 수 있도록 하는 단계;를 포함하여 진행하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 7.

제6항에 있어서,

상기 (c12)단계의 검색 조건은 아바타의 신체 부위에 매핑될 계층적 카테고리로 상세하게 용도 및 종류가 분류된 상품의 이미지 정보를 선택적으로 추출할 수 있도록 하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 8.

제1항에 있어서,

상기 (c)단계의 사업자가 커뮤니티 공간에 적용시킬 수 있는 상품 정보를 검색 및 추출할 수 있도록 하는 단계는, (c21)사업자는 이용자에게 상품 이미지가 매핑될 커뮤니티 공간의 성향, 용도 및 종류에 따른 건축물의 내/외부 구조를 선택할 수 있도록 하는 단계;

(c22)상기 사업자는 이용자가 건축물의 내/외부 구조에 매핑될 상품 이미지의 검색 조건을 선택적으로 입력할 수 있도록 하는 단계;

(c23)상기 사업자는 이용자가 입력한 검색 조건에 따른 상품 이미지 정보를 웹 서버와 연동되는 데이터베이스에서 추출하고, 이용자에게 상기 추출된 상품 이미지 정보의 리스트를 디스플레이하는 단계; 및

(c24)상기 사업자는 이용자가 리스트에 포함된 상품 이미지 중 선택된 어느 하나의 상품 이미지 정보를 추출할 수 있도록 하는 단계;를 포함하여 진행하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 9.

제8항에 있어서,

상기 (c22) 단계의 검색 조건은 건축물의 내/외부 구조에 매핑 또는 비치될 계층적 카테고리로 상세하게 용도 및 종류가 분류된 상품의 이미지 정보를 선택적으로 추출할 수 있도록 하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 10.

제2항에 있어서,

상기 (e) 단계는, (e1) 사업자는 이용자에게 등록된 커뮤니티 공간의 검색 조건을 선택적으로 입력할 수 있도록 하는 단계;

(e2) 상기 사업자는 이용자가 입력한 검색 조건에 따른 등록 커뮤니티 공간의 정보를 웹 서버와 연동되는 데이터베이스에서 추출하고, 이용자에게 추출된 등록 커뮤니티 공간의 리스트를 디스플레이하는 단계; 및

(e3) 상기 사업자는 이용자가 리스트에 포함된 등록 커뮤니티 공간 중 어느 하나의 등록 커뮤니티 공간을 선택할 수 있도록 하는 단계;를 포함하여 진행하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 11.

제8항에 있어서,

상기 (e1) 단계의 검색 조건은 등록 커뮤니티 공간의 종류별, 용도별, 등록일별, 등록자 신상별 및 그외 유사 항목에 따라 선택적으로 등록 커뮤니티 공간을 추출할 수 있도록 하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 12.

제2항에 있어서,

상기 (f) 단계는, (f1) 사업자는 커뮤니티 공간에 방문한 다른 이용자가 상품을 선택할 수 있도록 하는 단계; 및

(f2) 상기 사업자는 상기 방문한 다른 이용자에게 선택된 상품의 상세 정보를 디스플레이하는 단계;를 포함하여 진행하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 13.

제12항에 있어서,

상기 (f1) 단계의 상품 선택은 아바타에 매핑된 상품 이미지를 선택하거나, 건축물 내/외부에 매핑 또는 비치된 상품 이미지를 선택함으로서 구현 가능한 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 14.

제12항에 있어서,

상기 (f2) 단계의 상세 정보는 상품의 3차원 이미지 정보, 상품 코드, 상품 가격, 상품 특징, 상품 제조사 및 그외 유사 항목 중 선택된 어느 하나 이상의 항목을 포함하는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 15.

제1항에 있어서,

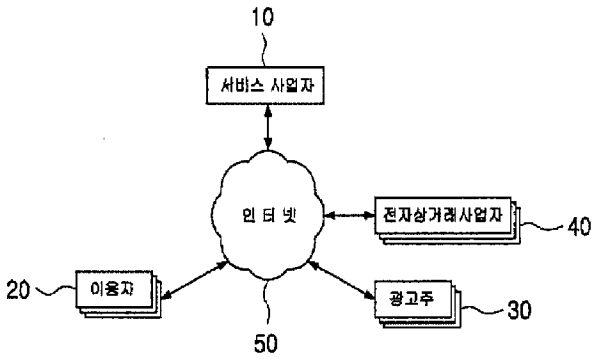
상기 사업자가 웹 상에 구축하는 데이터베이스는 회원 등록 정보 데이터베이스, 가상 공간 정보 데이터베이스, 상품 정보 데이터베이스, 상품 상거래 정보 데이터베이스, 3차원 가상 공간 정보 데이터베이스, 3차원 상품 정보 데이터베이스, 회원 주문 정보 데이터베이스, 주문 물품 배송 정보 데이터베이스 및 그외 유사 데이터베이스 중 선택된 어느 하나 이상의 데이터베이스를 포함하여 구축되는 것을 특징으로 하는 3차원 가상 현실을 이용한 전자상거래 사업 방법.

청구항 16.

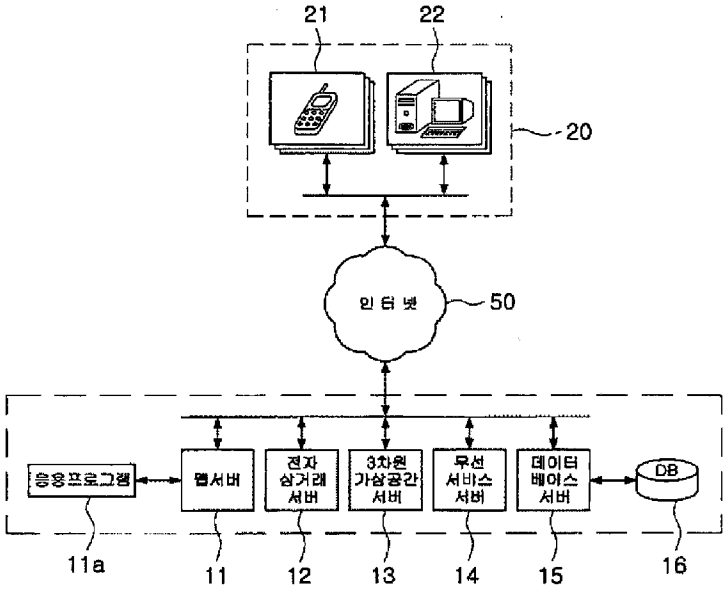
제1항 내지 제15항 중 선택된 어느 한 항의 3차원 가상 현실을 이용한 전자상거래 사업 방법을 수행할 수 있는 프로그램이 수록된 컴퓨터로 읽을 수 있는 기록매체.

도면

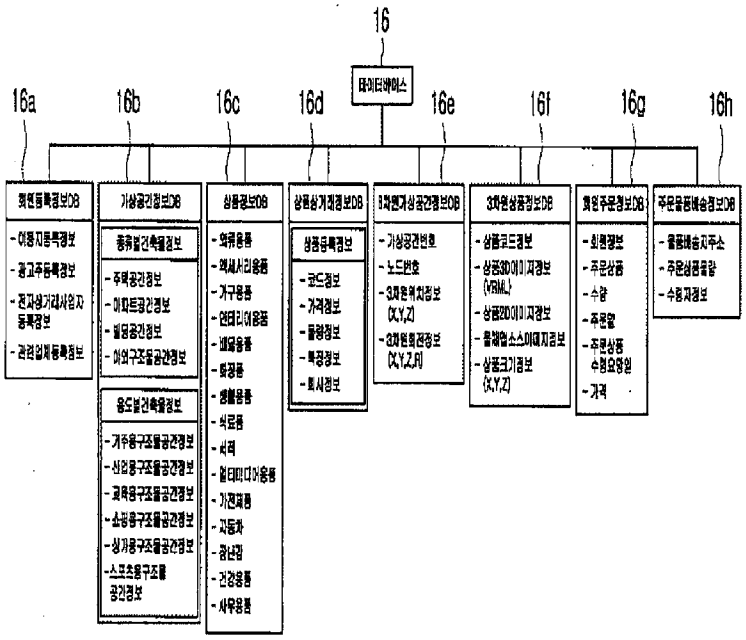
도면 1



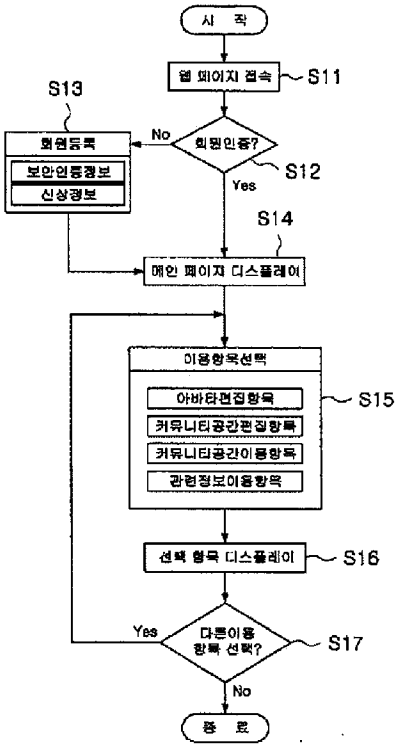
도면 2


21
22
20
인터넷
50
응용프로그램
웹서버
전자
상거래
서버
3차원
가상공간
서버
무선
서비스
서버
데이터
베이스
서버
DB
11a
11
12
13
14
15
16

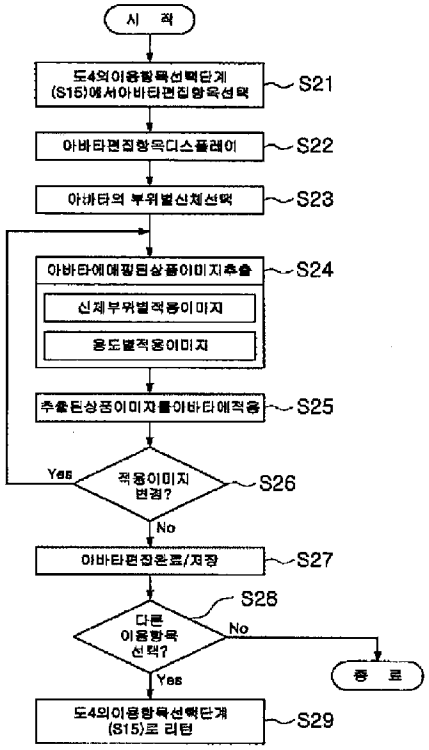
도면 3


16
데이터베이스
16a
16b
16c
16d
16e
16f
16g
16h
회원등록정보DB
- 이동지등록정보
- 광고주등록정보
- 전자상거래사업자 등록정보
- 관련업체등록정보
가상공간정보DB
통합법건축물정보
- 주택공간정보
- 아파트공간정보
- 빌딩공간정보
- 야외구조물공간정보
용도별건축물정보
- 거주용구조물공간정보
- 산업용구조물공간정보
- 교육용구조물공간정보
- 소방용구조물공간정보
- 상가용구조물공간정보
- 스포츠용구조물 공간정보
상품정보DB
- 의류용품
- 액세서리용품
- 가구용품
- 전자제품
- 생활용품
- 식료품
- 서적
- 컴퓨터/디지털용품
- 가전제품
- 자동차
- 장난감
- 건강용품
- 사무용품
상품등록정보DB
상품등록정보
- 코드정보
- 가격정보
- 물량정보
- 특판정보
- 회사정보
3차원가상공간정보DB
- 가상공간번호
- 노드번호
- 3차원위치정보 (X,Y,Z)
- 상차원회전정보 (X,Y,Z,R)
3차원상품정보DB
- 상품코드정보
- 상품3D이미지정보 (VRML)
- 상품2D이미지정보
- 물체인소스이미지정보
- 상품크기정보 (X,Y,Z)
회원주문정보DB
- 회원정보
- 주문상품
- 수량
- 주문일
- 주문상품 수령요청일
- 가격
주문물품배송정보DB
- 물품배송지주소
- 주문상품금액
- 수령자정보

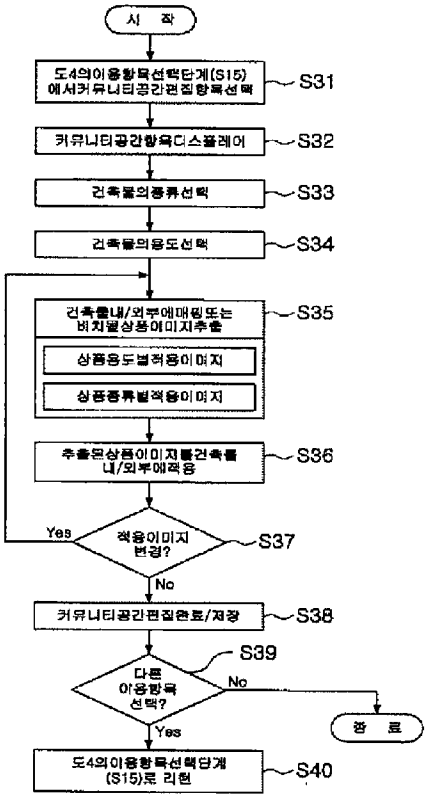
도면 4


시 작
웹 페이지 접속
S11
S13
회원등록
보안인증정보
신상정보
No
회원인증?
S12
Yes
S14
메인 페이지 디스플레이
이용항목선택
아바타편집항목
커뮤니티공간편집항목
커뮤니티공간이용항목
관련정보이용항목
S15
선택 항목 디스플레이
S16
Yes
다른이용 항목 선택?
S17
No
종 료

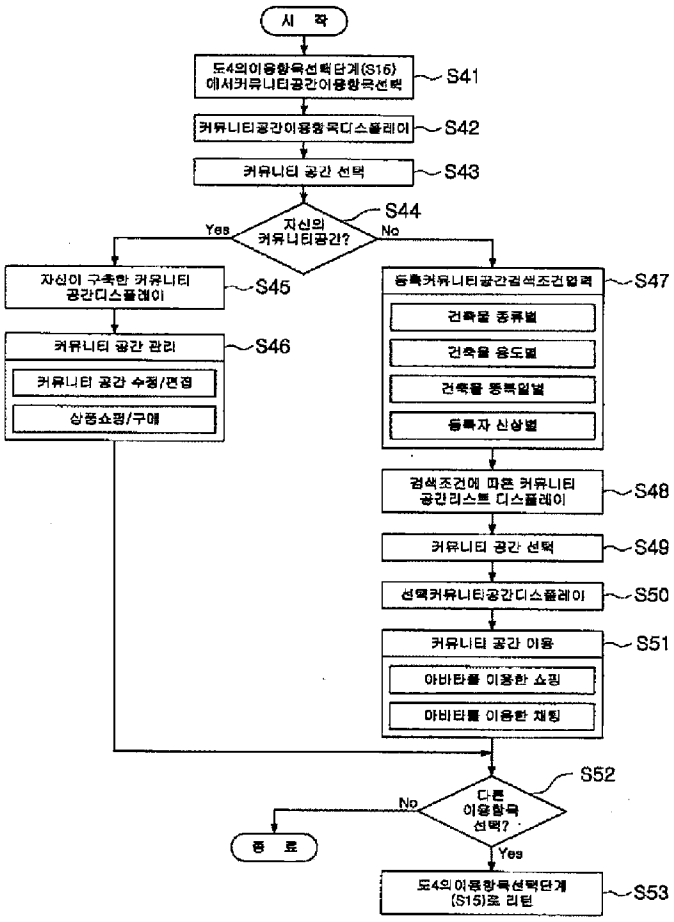
도면 5


시 작
도4의이용항목선택단계 (S15)에서아바타편집항목선택
S21
아바타편집항목디스플레이
S22
아바타의 부위별신체선택
S23
아바타에예정된상품이미지추출
신체부위별적용이미지
용도별적용이미지
S24
추출된상품이미지를아바타에적용
S25
Yes
적용이미지 변경?
S26
No
아바타편집완료/저장
S27
S28
다른 이용항목 선택?
No
Yes
종 료
도4의이용항목선택단계 (S15)로 리턴
S29

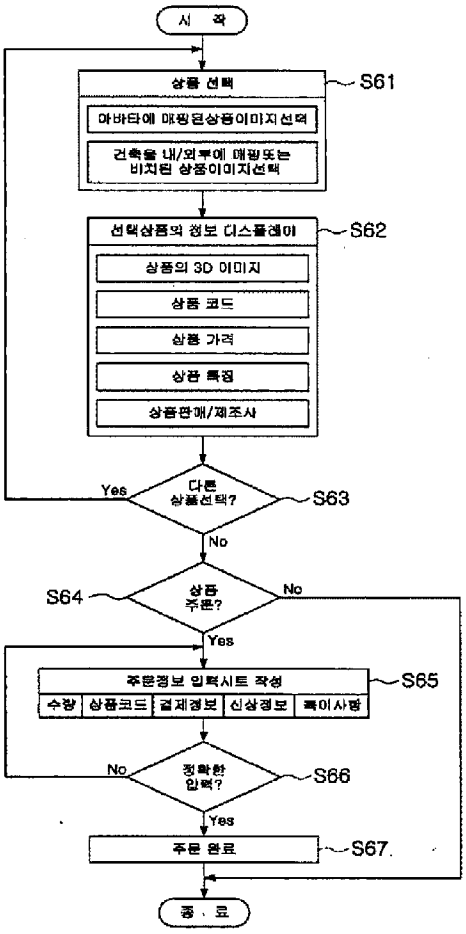
도면 6


시 작
도4의이용항목선택단계(S15)에서커뮤니티공간편집항목선택
S31
커뮤니티공간항목디스플레이
S32
건축물의종류선택
S33
건축물의용도선택
S34
건축물내/외부에매핑또는비치될상품이미지추출
S35
상품용도별적용이미지
상품종류별적용이미지
추출된상품이미지를건축물내/외부에적용
S36
Yes
적용이미지변경?
S37
No
커뮤니티공간편집완료/저장
S38
S39
다른이용항목선택?
No
Yes
종 료
도4의이용항목선택단계(S15)로 리턴
S40

도면 7


시 작
도4의이용항목선택단계(S16)에서커뮤니티공간이용항목선택
S41
커뮤니티공간이용항목디스플레이
S42
커뮤니티 공간 선택
S43
자신의 커뮤니티공간?
S44
Yes
No
자신이 구축한 커뮤니티 공간디스플레이
S45
커뮤니티 공간 관리
S46
커뮤니티 공간 수정/편집
상품쇼핑/구매
등록커뮤니티공간검색조건입력
S47
건축물 종류별
건축물 용도별
건축물 등록일별
등록자 신상별
검색조건에 따른 커뮤니티 공간리스트 디스플레이
S48
커뮤니티 공간 선택
S49
선택커뮤니티공간디스플레이
S50
커뮤니티 공간 이용
S51
아바타를 이용한 쇼핑
아바타를 이용한 채팅
다른 이용항목 선택?
S52
No
Yes
종 료
도4의이용항목선택단계(S15)로 리턴
S53

도면 8


시 작
상품 선택
S61
아바타에 매핑된상품이미지선택
건축물 내/외부에 매핑또는 비치된 상품이미지선택
선택상품의 정보 디스플레이
S62
상품의 3D 이미지
상품 코드
상품 가격
상품 특징
상품판매/제조사
다른 상품선택?
S63
Yes
No
상품 주문?
S64
No
Yes
주문정보 입력시트 작성
S65
수량
상품코드
결제정보
신상정보
특이사항
정확한 입력?
S66
No
Yes
주문 완료
S67
종 료

Electronic Acknowledgement Receipt

EFS ID:	3635182
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	Sushil Shrinivasan/Nancy Grant
Filer Authorized By:	Sushil Shrinivasan
Attorney Docket Number:	16113-206001 / GP-968-00-
Receipt Date:	17-JUL-2008
Filing Date:	29-DEC-2006
Time Stamp:	16:30:22
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Filed	16113-206001IDS.pdf	690783 a3012e7a65584a6466f6a68797d914864faa681a	no	12

Warnings:	
Information:	

This is not an USPTO supplied IDS fillable form

2	Foreign Reference	16113-206001npl1.pdf	1815223 27a8642e12bd1636ef654a3f8bc6f4ed9b899026	no	23
Warnings:					
Information:					
3	Foreign Reference	16113-206001npl2.pdf	1050806 f4336ff592f748463ff8cf8414a4507cf4598ea9	no	12
Warnings:					
Information:					
4	Foreign Reference	16113-206001npl3.pdf	589138 1a171f5cb67e60fab2b6bb9e94fcb50e671b2c3e	no	12
Warnings:					
Information:					
5	Foreign Reference	16113-206001npl4.pdf	1518352 b24fcf73fd18e64b049e02c7ee55e5d42d5a2aba	no	25
Warnings:					
Information:					
		Total Files Size (in bytes):	5664302		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/618,506	12/29/2006	Terrence Rohan	16113-206001 / GP-968-00-

CONFIRMATION NO. 5917

26192
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN55440-1022

Title: NETWORK NODE AD TARGETING

Publication No. US-2008-0162260-A1
Publication Date: 07/03/2008

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Pre-Grant Publication Division, 703-605-4283

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/618,506	12/29/2006	Terrence Rohan	16113-206001 / GP-968-00-

CONFIRMATION NO. 5917

26192
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

NONPUBLICATION RESCISSION LETTER



Date Mailed: 12/28/2007

Communication Regarding Rescission Of Nonpublication Request and/or Notice of Foreign Filing

Applicant's rescission of the previously-filed nonpublication request and/or notice of foreign filing is acknowledged. The paper has been reflected in the Patent and Trademark Office's (USPTO's) computer records so that the earliest possible projected publication date can be assigned.

The projected publication date is 07/03/2008.

If applicant rescinded the nonpublication request before or on the date of "foreign filing,"[1] then no notice of foreign filing is required.

If applicant foreign filed the application after filing the above application and before filing the rescission, and the rescission did not also include a notice of foreign filing, then a notice of foreign filing (not merely a rescission) is required to be filed within 45 days of the date of foreign filing. See 35 U.S.C. § 122(b)(2)(B)(iii), and Clarification of the United States Patent and Trademark Office's Interpretation of the Provisions of 35 U.S.C. § 122(b)(2)(B)(ii)-(iv), 1272 Off. Gaz. Pat. Office 22 (July 1, 2003).

If a notice of foreign filing is required and is not filed within 45 days of the date of foreign filing, then the application becomes abandoned pursuant to 35 U.S.C. § 122(b)(2)(B)(iii). In this situation, applicant should either file a petition to revive or notify the Office that the application is abandoned. See 37 CFR 1.137(f). Any such petition to revive will be forwarded to the Office of Petitions for a decision. Note that the filing of the petition will not operate to stay any period of reply that may be running against the application.

Questions regarding petitions to revive should be directed to the Office of Petitions at (571) 272-3282. Questions regarding publications of patent applications should be directed to the patent application publication hotline at (703) 605-4283 or by e-mail pgpub@uspto.gov.

[1] Note, for purpose of this notice, that "foreign filing" means "filing an application directed to the same invention in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing".

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/618,506	12/29/2006	Terrence Rohan	16113-206001 / GP-968-00-

CONFIRMATION NO. 5917

26192
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN55440-1022

Date Mailed. 12/27/2007

NOTICE OF NEW OR REVISED PROJECTED PUBLICATION DATE

The above-identified application has a new or revised projected publication date. The current projected publication date for this application is 07/03/2008. If this is a new projected publication date (there was no previous projected publication date), the application has been cleared by Licensing & Review or a secrecy order has been rescinded and the application is now in the publication queue.

If this is a revised projected publication date (one that is different from a previously communicated projected publication date), the publication date has been revised due to processing delays in the USPTO or the abandonment and subsequent revival of an application. The application is anticipated to be published on a date that is more than six weeks different from the originally-projected publication date.

More detailed publication information is available through the private side of Patent Application Information Retrieval (PAIR) System. The direct link to access PAIR is currently http://pair.uspto.gov. Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Questions relating to this Notice should be directed to the Office of Patent Publication at 1-888-786-0101.

PART 1 - ATTORNEY/APPLICANT COPY

RESCISSION OF PREVIOUS NONPUBLICATION REQUEST
(35 U.S.C. 122(b)(2)(B)(ii))
AND, IF APPLICABLE, NOTICE OF FOREIGN FILING
(35 U.S.C. 122(b)(2)(B)(iii))

Send completed form to:
Mail Stop PG Pub
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
FAX: (571) 273-8300

Application Number	11/618,506
Filing Date	December 29, 2006
First Named Inventor	Terrence Rohan, et al.
Title	NETWORK NODE AD TARGETING
Atty Docket Number	16113-0206001
Art Unit	2616
Examiner	

A request that the above-identified application not be published under 35 U.S.C. 122(b) (nonpublication request) was included with the above-identified application on filing pursuant to 35 U.S.C 122(b)(2)(B)(i). I hereby **rescind** the previous nonpublication request.

If a notice of foreign or international filing is or will be required by 35 U.S.C. 122(b)(2)(B)(iii) and 37 CFR 1.213(c), I hereby provide such notice. This notice is being provided no later than forty-five (**45**) days after the date of such foreign or international filing.

*If a notice of subsequent foreign or international filing required by 35 U.S.C. 122(b)(2)(B)(iii) and 37 CFR 1.213(c) was not filed within forty-five (**45**) days after the date of filing of the foreign or international application, the application is ABANDONED, and a petition to revive under 37 CFR 1.137(b) is required. See 37 CFR 1.137(f).*

Signature — Date: 12/18/07

Sushil Srinivasan — John Phillips — L0368 — 35,322

Typed or printed name — Registration Number, if applicable

(858) 678-5070

Telephone Number

This request must be signed in compliance with 37 CFR 1.33(b).

If information or assistance is needed in completing this form, please contact the Pre-Grant Publication Division at (703) 605-4283 or by e-mail at PGPub@USPTO.gov.

CERTIFICATE OF *MAILING* OR *TRANSMISSION*

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop PG Pub, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature			
Name (Print/Type)		Date	

Electronic Acknowledgement Receipt

EFS ID:	2610473
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	John Christopher Phillips/Nancy Grant
Filer Authorized By:	John Christopher Phillips
Attorney Docket Number:	16113-206001 / GP-968-00-
Receipt Date:	18-DEC-2007
Filing Date:	29-DEC-2006
Time Stamp:	19:57:39
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Rescind Nonpublication Request for Pre Grant Pub	16113-206001rescind.pdf	114962 f8a7d30e8bae2b86a92844674a67976a a7236c8b	no	1

Warnings:	
Information:	

Total Files Size (in bytes):	114962

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
11/618,506	12/29/2006	2616	1930	16113-206001 / GP-968-00-	7	36	3

CONFIRMATION NO. 5917

UPDATED FILING RECEIPT

26192
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN55440-1022

Date Mailed: 02/28/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Terrence Rohan, Atherton, CA;
Tomasz J. Tunguz-Zawislak, San Francisco, CA;
Scott G. Sheffer, Palo Alto, CA;
Jeremiah Harmsen, Mountain View, CA;

Assignment For Published Patent Application

Google Inc., Mountain View, CA

Power of Attorney: The patent practitioners associated with Customer Number 26192

Domestic Priority data as claimed by applicant

Foreign Applications

If Required, Foreign Filing License Granted: 01/30/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US11/618,506**

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No

Title

NETWORK NODE AD TARGETING

Preliminary Class

370

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

Scanned 02/27/2007

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/618,506	12/29/2006	Terrence Rohan	16113-206001/GP-968-00-US

CONFIRMATION NO. 5917

26192
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

FORMALITIES LETTER

Date Mailed: 01/31/2007

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

Adjustment date: 02/27/2007 MTEKLEMI
02/21/2007 INTEFSW 00002086 061050 11618506
05 FC:1808 130.00 CR

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
  Applicant must submit $ **300** *to complete the basic filing fee for a non-small entity. If appropriate, applicant may make a written assertion of entitlement to small entity status and pay the small entity filing fee (37 CFR 1.27).*
- The oath or declaration is missing. *A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
  Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Additional claim fees of **$800** as a non-small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.16(f) of $130 for a non-small entity, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **$1930** for a non-small entity

02/27/2007 MTEKLEMI 00000047 061050 11618506
01 FC:1051 130.00 DA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 2616
Serial No.	: 11/618,506	Examiner	: Unknown
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

MAIL STOP MISSING PARTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION

In response to the Notice to File Missing Parts of Application under 37 CFR §1.53(b) mailed January 31, 2007, applicant as a large entity submits herewith the following:

- ☒ Payment of the basic filing fee of $300;
- ☒ Payment of the search fee of $500;
- ☒ Payment of the examination fee of $200;
- ☒ Payment of the additional/multiple dependent claims fees of $800;
- ☒ Payment of the surcharge of $130 for late filing of the basic filing fee and/or declaration; and
- ☒ A Combined Declaration and Power of Attorney in compliance with 37 CFR §1.63;

Please apply the total amount of $1930 to Deposit Account No. 06-1050.

It is understood that this perfects the application and no additional papers or filing fees are required. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: February 20, 2007

John C. Phillips
Reg. No. 35,322

Fish & Richardson P.C.
PTO Customer No. **26192**
Telephone: (858) 678-5070
Facsimile: (858) 678-5099

40047454 2833305

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/618,506	12/29/2006	Terrence Rohan	16113-206001/GP-968-00-US

CONFIRMATION NO. 5917

FORMALITIES LETTER

26192
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

Date Mailed: 01/31/2007

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
  Applicant must submit $ **300** *to complete the basic filing fee for a non-small entity. If appropriate, applicant may make a written assertion of entitlement to small entity status and pay the small entity filing fee (37 CFR 1.27).*
- The oath or declaration is missing. *A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
  Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Additional claim fees of $**800** as a non-small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.16(f) of $130 for a non-small entity, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is $**1930** for a non-small entity

Scanned with CamScanner

- **$300** Statutory basic filing fee.
- **$130** Surcharge.

- The application search fee has not been paid. Applicant must submit **$500** to complete the search fee.
- The application examination fee has not been paid. Applicant must submit **$200** to complete the examination fee for a non-small entity.

- Total additional claim fee(s) for this application is **$800**

  - **$800** for **16** total claims over 20.

Replies should be mailed to: Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 2 - COPY TO BE RETURNED WITH RESPONSE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Terrence Rohan, et al.	Art Unit	: 2616
Serial No.	: 11/618,506	Examiner	: Unknown
Filed	: December 29, 2006	Conf. No.	: 5917
Title	: NETWORK NODE AD TARGETING		

MAIL STOP MISSING PARTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION

In response to the Notice to File Missing Parts of Application under 37 CFR §1.53(b) mailed January 31, 2007, applicant as a large entity submits herewith the following:

- ☒ Payment of the basic filing fee of $300;
- ☒ Payment of the search fee of $500;
- ☒ Payment of the examination fee of $200;
- ☒ Payment of the additional/multiple dependent claims fees of $800;
- ☒ Payment of the surcharge of $130 for late filing of the basic filing fee and/or declaration; and
- ☒ A Combined Declaration and Power of Attorney in compliance with 37 CFR §1.63;

Please apply the total amount of $1930 to Deposit Account No. 06-1050.

It is understood that this perfects the application and no additional papers or filing fees are required. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: February 20, 2007

John C. Phillips
Reg. No. 35,322

Fish & Richardson P.C.
PTO Customer No. **26192**
Telephone: (858) 678-5070
Facsimile: (858) 678-5099

40047454 2833305

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/618,506	12/29/2006	Terrence Rohan	16113-206001/GP-968-00-US

CONFIRMATION NO. 5917

FORMALITIES LETTER

26192
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

Date Mailed: 01/31/2007

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
  Applicant must submit $ **300** *to complete the basic filing fee for a non-small entity. If appropriate, applicant may make a written assertion of entitlement to small entity status and pay the small entity filing fee (37 CFR 1.27).*
- The oath or declaration is missing. *A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
  Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Additional claim fees of $**800** as a non-small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.16(f) of $130 for a non-small entity, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is $**1930** for a non-small entity

Scanned with CamScanner

- **$300** Statutory basic filing fee.
- **$130** Surcharge.

- The application search fee has not been paid. Applicant must submit **$500** to complete the search fee.
- The application examination fee has not been paid. Applicant must submit **$200** to complete the examination fee for a non-small entity.

- Total additional claim fee(s) for this application is **$800**

  - **$800** for **16** total claims over 20.

Replies should be mailed to: Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 2 - COPY TO BE RETURNED WITH RESPONSE

Attorney's Docket No.: 16113-206001
Client's Ref. No.: GP-968-00-US

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled NETWORK NODE AD TARGETING, the specification of which:

[] is attached hereto.
[X] was filed on December 29, 2006 as Application Serial No. 11/618,506 .
[] was described and claimed in PCT International Application No. _____ filed on _____ and as amended under PCT Article 19 on _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application.

I hereby claim the benefit under Title 35, United States Code, §119(e)(1) of any United States provisional application(s) listed below:

U.S. Serial No.	Filing Date	Status

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information I know to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

U.S. Serial No.	Filing Date	Status

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

Country	Application No.	Filing Date	Priority Claimed

Direct all telephone calls to JOHN C. PHILLIPS, Reg. No. 35,322, at telephone number (858) 678-5070.

I hereby appoint all registered practitioners associated with Customer Number 26192 to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to:

Customer Number 26192

For Assigned Inventions: I understand that the purpose of making this appointment is to permit prosecution of patent applications for the above-identified invention for the benefit of my assignee, and that this appointment does not create an attorney-client relationship between me and these appointees.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name of Inventor: TERRENCE ROHAN
Inventor's Signature: _____ Date: 1/24/07
Residence Address: Atherton, CA
Citizenship: United States
Post Office Address: 399 Stevick Drive
Atherton, CA 94027

Full Name of Inventor: ~~TOMASZ J. TUNGUZ~~-ZAWISLAK
Inventor's Signature: _____ Date: January 23, 2007
Residence Address: San Francisco, CA
Citizenship: United States
Post Office Address: 2055 Sacramento Street, # 1007
San Francisco, CA 94109

Full Name of Inventor: SCOTT G. SHEFFER
Inventor's Signature: _____ Date: 1/23/07
Residence Address: Palo Alto, CA
Citizenship: United States
Post Office Address: 1478 Kings Lane
Palo Alto, CA 94303

Full Name of Inventor: JEREMIAH HARMSEN
Inventor's Signature: _____ Date: 1/23/2007
Residence Address: Mountain View, CA
Citizenship: United States
Post Office Address: 1600 Amphitheatre Parkway
Mountain View, CA 94043

Electronic Patent Application Fee Transmittal

Application Number:	11618506
Filing Date:	29-Dec-2006
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Filer:	John Christopher Phillips/Nancy Grant
Attorney Docket Number:	16113-206001/GP-968-00-US

Filed as Large Entity

Utility Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility application filing	1011	1	300	300
Utility Search Fee	1111	1	500	500
Utility Examination Fee	1311	1	200	200
Pages:				
Claims:				
Claims in excess of 20	1202	16	50	800
Miscellaneous-Filing:				
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Processing Fee, except for Provis. apps	1808	1	130	130
		Total in USD ($)		**1930**

Electronic Acknowledgement Receipt

EFS ID:	1532653
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	John Christopher Phillips/Nancy Grant
Filer Authorized By:	John Christopher Phillips
Attorney Docket Number:	16113-206001/GP-968-00-US
Receipt Date:	21-FEB-2007
Filing Date:	29-DEC-2006
Time Stamp:	14:01:27
Application Type:	Utility

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	$1930
RAM confirmation Number	2086
Deposit Account	061050
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1		16113206001MPResp.pdf	447940	yes	5

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Applicant Response to Pre-Exam Formalities Notice	1	3
Oath or Declaration filed	4	5

Warnings:

Information:

2	Fee Worksheet (PTO-06)	fee-info.pdf	8671	no	2

Warnings:

Information:

Total Files Size (in bytes):	456611

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
11/618,506	12/29/2006	2616	0.00	06113-206001/GP-968-00-US	36	3	

CONFIRMATION NO. 5917

FILING RECEIPT

26192
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN55440-1022

Date Mailed: 01/31/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Terrence Rohan, Atherton, CA;
Tomasz J. Tunguz-Zawislak, San Francisco, CA;
Scott G. Sheffer, Palo Alto, CA;
Jeremiah Harmsen, Mountain View, CA;

Assignment For Published Patent Application

Google Inc., Mountain View, CA

Power of Attorney: None

Domestic Priority data as claimed by applicant

Foreign Applications

If Required, Foreign Filing License Granted: 01/30/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US11/618,506**

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No

Title

NETWORK NODE AD TARGETING

Preliminary Class

370

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the

subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/618,506	12/29/2006	Terrence Rohan	16113-206001/GP-968-00-US

CONFIRMATION NO. 5917

FORMALITIES LETTER

26192
FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

Date Mailed: 01/31/2007

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
  Applicant must submit $ **300** *to complete the basic filing fee for a non-small entity. If appropriate, applicant may make a written assertion of entitlement to small entity status and pay the small entity filing fee (37 CFR 1.27).*
- The oath or declaration is missing. *A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
  Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Additional claim fees of **$800** as a non-small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.16(f) of $130 for a non-small entity, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **$1930** for a non-small entity

- **$300** Statutory basic filing fee.
- **$130** Surcharge.

- The application search fee has not been paid. Applicant must submit **$500** to complete the search fee.
- The application examination fee has not been paid. Applicant must submit **$200** to complete the examination fee for a non-small entity.

- Total additional claim fee(s) for this application is **$800**

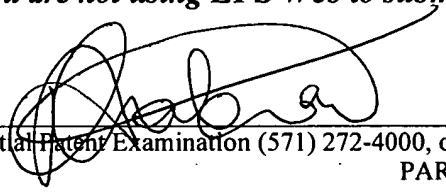
  - **$800** for **16** total claims over 20.

Replies should be mailed to: Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.



Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 3 - OFFICE COPY

FISH & RICHARDSON P.C.

Frederick P. Fish
1855-1930

W.K. Richardson
1859-1951

STREET ADDRESS
12390 El Camino Real
San Diego, California
92130

MAIL ADDRESS
P.O. Box 1022
Minneapolis, Minnesota
55440-1022

Telephone
858 678-5070

Facsimile
877 769-7945

Web Site
www.fr.com

Cheng C. Ko
858 678-4356

Email
ko@fr.com

ATLANTA
AUSTIN
BOSTON
DALLAS
DELAWARE
NEW YORK
SAN DIEGO
SILICON VALLEY
TWIN CITIES
WASHINGTON, DC

December 29, 2006

Attorney Docket No.: 16113-206001/GP-968-00-US

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Presented for filing is a new original patent application of:

Applicant: TERRENCE ROHAN, TOMASZ J. TUNGUZ-ZAWISLAK, SCOTT G. SHEFFER AND JEREMIAH HARMSEN

Title: NETWORK NODE AD TARGETING

Enclosed are the following papers, including those required to receive a filing date under 37 C.F.R. § 1.53(b):

	Pages
Specification	16
Claims	5
Abstract	1
Declaration	[To be Filed at a Later Date]
Drawing(s)	7

Enclosures:

— Application Data Sheet (5 pages); and

— Request for Non-Publication (1 page).

			Small Entity	Large Entity	
Basic Filing Fee			150	300	$300
Search Fee			250	500	$500
Examination fee			100	200	$200
Total Claims 36	over 20	**16 x $50**	25	50	$800
Independent Claims 3	over 3	**0 x $200**	100	200	$0
Fee for Multiple Dependent claims			180	360	$0
Fee for each additional 50 pages of Specification and Drawings over 100		(16+7-100)/50 = 0 x	125	250	$0
Total Filing fee					$1800

Under 37 C.F.R. §1.53(f), no filing fee is being paid at this time.

If this application is found to be incomplete, or if a telephone conference would otherwise be helpful, please call the undersigned at (858) 678-5070.

Kindly acknowledge receipt of this application by returning the enclosed postcard.

Please direct all correspondence to the following:

26192
PTO Customer Number

Respectfully submitted,



Cheng C. Ko
Reg. No. 54,227
Enclosures
JWK/mas
10695436.doc

NETWORK NODE AD TARGETING

TECHNICAL FIELD

[0001] In general, this document describes advertising to members in communities within an online social network by displaying advertisements relevant to the common interest of the members of the community. In one example, a system may receive the profiles of all the members of an online social network, identify communities of members, determine the common interest of members of the community and display advertisements relevant to each community on the profiles of the members within the community.

BACKGROUND

[0002] As the Internet has become increasingly popular, online social networks are becoming an important and pervasive mechanism for communication, entertainment, and professional and social networking. Members of a network implicitly associate or explicitly link themselves with one or more members within the network based on factors such as common interests. Interaction and signaling between members either directly or through other members cause the formation of communities of common interests within the online social network. The members of such communities are connected by one or more common interests.

[0003] Factors such as member interactions, content on member profiles, dynamically changing size of the community, and the like establish a hierarchy within a community where certain members are more popular than others and, consequently, wield enhanced influence over other members in the community.

SUMMARY

[0004] The present inventors recognized that blanket advertising across the network tends not to be cost-efficient to advertisers, since the members of the network tend not to be interested in the products and services being advertised unless the advertisements are relevant to the members' interest. Presenting to advertisers a community of members sharing a common interest provides advertisers with an

opportunity to present products and services of interest to the members of the network, thereby maximizing the return on the investment made to advertising.

[0005] The present inventors also recognized that advertising to members of an online social network based solely on the content of their profile lacks targeted generation of advertisements. Members of a community may have content on their profile in addition to the common interest of the community, such as personal information, etc. Relying solely on the content of the profile of a member of a community decreases the specificity of advertisements to the community since the presence of additional information distorts the signal from the content related to the common interests.

[0006] In one implementation, a computer-implemented method for displaying advertisements to members of a network is described. The method includes identifying one or more communities within a network, wherein the community can include a plurality of members of the network, identifying one or more influencers in the one or more communities, and placing one or more advertisements at the profiles of one or more members in the one or more communities.

[0007] This and other aspects can include one or more of the following features. The method can further include receiving information pertaining to a plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and links between the plurality of members. Identifying one or more communities can include grouping members based on the links established between the members of the network. The link can connect a first member with one or more members of the network. Each link can have a weight. The method can further include identifying one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members. The method can further include ranking the plurality of members belonging to each of the one or more communities based on the links between the members of the community. The influencer can be a the member with the highest rank. The network can include an online social network. The profile can comprise one or more web pages stored on a server hosting the online social network. A member of the network can belong to one or more of the plurality of communities. The one or more advertisements can be placed solely on the profiles of the one or more influencers.

[0008] In another aspect, an advertisement server for displaying advertisements to members of a network is described. The advertisement server includes a community identifier configured to identify one or more communities, and identify one or more influencers in the one or more communities, and an advertisement inventory configured to store advertisements to be displayed on the profiles of one or more members of the identified communities.

[0009] This and other aspects can include one or more of the following features. The advertisement server can further include a network inventory configured to store the information pertaining to the plurality of members belonging to the network, wherein the information includes content of profiles of the plurality of members and links between the plurality of members. The community identifier can further be configured to group members based on the links established between the members of the network. The link can connect a first member with one or more members of the network. Each link can have a weight. The community identifier can further be configured to identify one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members. The community identifier can further be configured to rank the plurality of members belonging to each of the one or more communities based on the links between the members of each community. The influencer can be the member with the highest rank. The network can include an online social network. The profile can include one or more web pages stored on a server hosting the online social network. A member of the network can belong to one or more of the plurality of communities. The one or more advertisements can be placed solely on the profiles of the one or more influencers.

[0010] In another aspect, an advertisement server for displaying advertisements to members of a network is described. The advertisement server includes a means for identifying one or more communities, and identifying one or more influencers in the one or more communities, and a means for storing advertisements to be displayed on the profiles of one or more members of the identified communities.

[0011] This and other aspects can include one or more of the following features. The advertisement server can further include a means for storing the information pertaining to the plurality of members belonging to the network, wherein the information

comprises content of profiles of the plurality of members and links between the plurality of members. The means for identifying one or more communities and identifying one or more influencers in the one or more communities is further configured to group members based on the links established between the members of the network. The link can connect a first member with one or more members of the network. Each link can have a weight. The means for identifying one or more communities and identifying one or more influencers in the one or more communities can further be configured to identify one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members. The means for identifying one or more communities and identifying one or more influencers in the one or more communities is further configured to rank the plurality of members belonging to each of the one or more communities based on the links between the members of each community. The influencer can be the member with the highest rank. The network can include an online social network. The profile can include one or more web pages stored on a server hosting the online social network. A member of the network can belong to one or more of the plurality of communities. The one or more advertisements can be placed solely on the profiles of the one or more influencers.

[0012] The systems and techniques described here may provide one or more of the following advantages. First, a system can identify communities of common interests within an online social network. This may allow advertisers to target the communities based on the common interest of the community, as opposed to the content of individual profiles. Second, a system can identify members who belong to overlapping communities as a result of more than one common interest. By blending advertisements relevant to the interests of each of the overlapping communities, advertisers may target the members common to these communities. Third, a system can identify the influencers from among the members of a community. This may provide advertisers with the option of targeting either all members in the community or advertising only on the profile of the influencer, thereby targeting the entire community.

[0013] In addition, the system encourages members of communities in online social networks to enrich the content on their profiles. The presence of high quality content relevant to shared interests on a member's profile increases the popularity of the

member in the community and improves a member's chances of being an influencer. An influencer may receive financial incentives from advertisers in exchange for permission to display advertisements on the member's profile.

[0014] The details of one or more implementations are set forth in the accompanying drawings and the description below. Other features, objects, and advantages will be apparent from the description and drawings, and from the claims.

DESCRIPTION OF DRAWINGS

[0015] Fig. 1 is a schematic diagram of an example of a system for advertising to communities in an online social network.

[0016] Fig. 2 is a schematic diagram of an example of a system for advertising to communities in an online social network.

[0017] Fig. 3A is a schematic diagram of an example of a cluster of users connected by internal and external friendships.

[0018] Fig. 3B is a schematic diagram of an example of a cluster of users connected by internal and external friendships.

[0019] Fig. 3C is a schematic diagram of an example of a cluster of users connected by internal and external friendships.

[0020] Fig. 4 is a flow chart of an example of a method for advertising to communities in an online social network.

[0021] Fig. 5 is an example of profiles of members grouped into a community based on a common interest in movies.

[0022] Fig. 6 is an example of blending advertisements for display on the profile of a member belonging to more than one community.

[0023] Fig. 7 is an example of designating one member as a network influencer of a community.

[0024] Like reference symbols in the various drawings indicate like elements.

DETAILED DESCRIPTION

[0025] Fig. 1 depicts a schematic diagram of an example of a system 100 for advertising to communities in an online social network 102. An online social network

102 includes interconnected profiles of members 104, for example, web pages stored of the network. Further, the online social network 102 includes hosted web pages that describe the profiles and the characteristics of the members 104 of the network 102. Examples of online social networks can include orkut.com, myspace.com, and friendster.com. Alternatively, other types of online social networks or personal web pages may be used, such as job hunting web sites (e.g., monster.com), school alumni web sites, organizations of professionals, Internet dating sites, ratings sites (e.g., hotornot.com), and a company employee internal web site.

[0026] The system 100 identifies one or more communities 106 of members 104 within the online social network 102. Further, the system 100 identifies one or more influencers of communities 106. The one or more influencers are identified based on factors including traffic to the profile, number of friends, group membership, number of user interactions, popularity within the community and profile content.

[0027] The online social network 102 comprises the profiles of members 104. The network 102 is hosted by a server. The profile of a member 104 comprises one or more web pages stored on the server and linked to profiles of one or more members 104 of the network 102. In one implementation, the system 100 includes an advertisement server 108 to receive all the profiles of members 104 of the online social network 102. Each member 104 establishes a link with at least one other member 104. In one aspect, a link is established when one member chooses another member as a friend. In another aspect, a link is established when one member visits another members web page frequently. In another aspect, a link is established when one member communicates with another member through the network. In yet another aspect, a link is established between two members when both members include themselves to the same community.

[0028] The network inventory 110 stores the links between members 104. The number and type of links in the online social network 102 are dynamic since the number of members 104 and the manner in which one member 104 links to another member 104 constantly changes. In one aspect, the online social network monitors and updates the links. The network sends the updated links to the advertisement server. The advertisement server overwrites the existing links with the new links and stores the links in the network inventory. In another aspect, the advertisement server monitors and

updates the links and regularly overwrites the existing links in the network inventory with the new links.

[0029] In one implementation, a link between two members 104 has a weight associated with it. In one aspect, the weight of a link depends on the type of the link. For example, a link between two members where one member has designated another member as a friend is associated more weight than a link where one member occasionally visits another member's web page. In another aspect, the weights of links depend on the number of links that connect one member to one or more members. In another aspect, the links are designated equal weight. The weight of the links can also depend on factors such as community membership, interest intersection, circle of friends, distance between friends, geographic location, and demographic location.

[0030] The advertisement server 108 includes a community identifier 112. In one implementation, the community identifier 112 generates a community 106 based on the links between members in the network inventory 110. In one aspect, two members of a community are directly linked. In another aspect, two members of a community are linked indirectly by association through one or more members. In one implementation, the community identifier 112 employs graph theory and the network signals between the members of the community to generate a community 106.

[0031] The community identifier 112 receives the graph connecting the members of the network and the links between the members. Subsequently, the community identifier 112 iteratively optimizes the community 106 to account for addition of new members 104 and removal of old members 104 based on the links between the members 104. In this manner, the community identifier 112 groups members 104 of the online social network 102 into communities 106. In one aspect, members are added when members of the existing community link to members that were not part of the community during the initial generation. In another aspect, the community is affected by changes in the types of links between members. For example, a first member who frequently visits a second member's web page may designate the second member as a friend. This increases the strength of the link between the two members affecting the structure of the community. The strength of a link is also altered when a first member, linked to a second member through a third member, establishes a direct link to the second member. The

strength of a link may also depend on factors such as frequency of member interaction, actions such as communication between members through messages on profiles, one member declaring themselves a second member's fan, and one member writing testimonials about a second member on the second member's profile.

[0032] Based on the links and the weight of the links between the members 104, the community identifier 112 generates one or more communities 106. The weight of the links change during the iterations due to the addition and subtraction of members 104. The community identifier 112 optimizes the weight of the links between members 104 of the community 106 until the community can no longer be improved. A community comprises at least two members. In addition, at least one member of the online social network may belong to more than one community.

[0033] Upon identifying the one or more communities 106 within the online social network 102, the advertisement server 108 identifies influencers within the community. In one implementation, the advertisement server 108 ranks the web pages of the members 104 in a community 106. The advertisement server uses a ranking algorithm, such as PageRank, to rank the members 104 in the community 106. The advertisement server designates influencers based on the rank of the members 104. In one aspect, the advertisement server designates one member as an influencer. In another aspect, the advertisement server designates more than one member from among the top ranked members as equal influencers of the community. In another aspect, the advertisement server associates weights to the top ranked members of the community, wherein the weight is directly proportional to the rank of the member, and the weight refers to the degree of influence of a member in the community.

[0034] The advertisement server 108 also stores the content of the profiles of members 104 of the online social network in the network inventory 110. Based on the content of the profiles, the advertisement server 108 identifies one or more common interests that connect the members 104 of a community 106. For example, a member with content related to soccer on the profile establishes links with other members with similar content on their profiles. A community of soccer fans is formed between the plurality of members. The community is characterized by the content on the member profiles as well as the links between the members. The community identifier identifies

this community, ranks the members based on the types of links, and designates one or more influencers. Subsequently, the advertisement server designates soccer as a common interest of this community based on the content of the member profiles in the community.

[0035] Since the number of members and the content on the profiles of members is dynamic, the content of the network inventory 110 requires regular updating. In one aspect, the online social network monitors and updates the content on the profiles. The online social network transmits the updated content to the advertisement server. The advertisement server overwrites the existing content stored in the network inventory with the updated content. In another aspect, the advertisement server monitors the online social network, updates the content on the profiles and overwrites the existing content in the network inventory with the updated content.

[0036] The advertisement server 108 includes an advertisement inventory 114. The advertisement inventory 114 includes advertisements to be displayed on the one or more profiles of members 104 of the online social network 102. In one implementation, the advertisement server 108 retrieves advertisements from the advertisement inventory 114 that are relevant to the common interest of a community 106 and transmits the advertisements to the community identifier 112. The community identifier 112 identifies one or more profiles of members 104 belonging to the community 106 to display the advertisements. In one aspect, the identified one or more members are the one or more influencers of the community. In another aspect, the identified one or more members include the influencers and other members of the community.

[0037] The community identifier 112 also identifies members belonging to more than one community 106. Since a member 104 can establish links with more than one member 104 in the online social network 102, and since links are established based on the content of member profiles, one member 104 can belong to more than one community 106, each community 106 having a different interest. The advertisement server 108 determines the common interest of the more than one community 106 to which the member 104 belongs. The advertisement server 108 can display on the profiles of such members, one or more advertisements that are relevant to the more than one interest of the member 104.

[0038] In one aspect, the number of advertisements displayed on the member profile may represent the interests of the member equally. For example, if a member belongs to a community of soccer players and motorcycle riders, two advertisements related to soccer and two advertisements related to motorcycle gear may be displayed on the member's profile. In another aspect, the number of advertisements displayed on the member profile may be affected by the weight of the links and the rank of the member in each community. For example, if the weight of the links and the rank of the member in the soccer community is higher than those in the motorcycle riders community, three advertisements related to soccer and one related to motorcycle gear may be displayed on the member's profile.

[0039] Fig. 2 depicts a schematic diagram of an example of a system 100 for advertising to communities 106 in an online social network 102. The advertisement server 108 includes a web crawler 202. The web crawler 202 receives the contents of member profiles 204 via an interface 206. The web crawler 202 traverses the content of the member profiles 204 and generates the indexed content 208 stored in the network inventory 110. In addition, the links 210 between the members 104 of the online social network 102 are also stored in the network inventory 110.

[0040] In addition, the web crawler 202 can generate statistical associations between keywords and the content of the member profiles 204. For example, the content of the member profiles 204 can contain information used by the web crawler 202 to identify what keyword may be related to the content of the member profile. This information can include text within the profile, keywords (e.g., metadata) that describe the profile, frequencies of words occurring in the profile, font size of text in the profile (e.g., if one word has a larger font size, more emphasis can be given when associating the profile with keywords), or a hyperlink structure within the profile. The web crawler 202 can store the statistical associations in a repository 212.

[0041] The advertisement server 108 receives the advertisements 214 via an interface 216 and stores the advertisements 214 in the advertisements inventory 114. The advertisements 214 include sub-components, including a uniform resource identifier (URI), an image, a video, text, and/or keywords. The image, video, and text can form the

information displayed on the profile of a member 104. In addition, the advertisement 214 may include audio or other appropriate media.

[0042] In certain implementations, the URI is a uniform resource link (URL) that permits a member 104 viewing the advertisement 214 to navigate from the profile of the member 104 to a web page of the advertiser. In other implementations, the URI can include contact information for the advertiser (e.g., telephone number, mailing address, email address, etc.).

[0043] The community identifier 112 identifies the communities 106 of members 104 based on the indexed content 208 and the member links 210. The advertisement to profile matcher 218 matches advertisements in the advertisement inventory 114 to profiles of members 104 identified by the community identifier 112 based on the indexed content 208, the member links 210, statistical associations between keywords 212 and additional key words 220.

[0044] Fig. 3A depicts a schematic diagram of an example of a cluster of users connected by internal and external friendships. Figure 3A shows a cluster of four users, A, B, C, and D. The solid lines represent declared friendships within the cluster and the dashed lines are friendships outside of the cluster. The "weight" of the cluster is defined as the number of internal friendships divided by the total number of friendships. For the cluster in figure 1 the weight is 4/6 (or 2/3).

[0045] Fig. 3B depicts a schematic diagram of an example of a cluster of users connected by internal and external friendships. The influence score is a measure that captures the general "influence" of a particular user relative to the others members of a cluster. Higher scores mean more influence. The influence score of a particular user can be calculated by measuring how the weight of the cluster changes by removing that user. Figure 3B shows the cluster from Fig. 3A with user A removed. The weight of original cluster is 2/3, and the cluster in Figure 3B has weight 2/6 (or 1/3), thus the influence score of user A is 2/3-1/3=1/3.

[0046] Fig. 3C depicts a schematic diagram of an example of a cluster of users connected by internal and external friendships. Fig. 3C shows the cluster from Fig. 3A with user C removed. In this case, the cluster in Fig. 3C has a weight of 1/6. This makes the influence score of user C equal to, 4/6 – 1/6 = 3/6 (or ½). Intuitively, the influence

score of a particular user is related to how important they are in connecting the entire cluster. In Fig. 3A, it is clear that user C (influence score ½) plays a larger role in linking the four users than user A (influence score 1/3).

[0047] Subsequent to identifying the communities 106, the advertisement server 108 ranks the profile of each member 104 in the community 106. In one implementation, the web pages of each member 104 are ranked using the method described in the patent titled "Method for node ranking in a linked database," (US Patent No. 6,285,999 B1; inventor: Lawrence Page; date of patent: Sept. 4, 2001), the contents of which are incorporated by reference here.

[0048] Subsequent to ranking the profiles of the members 104 in each community 106, the advertisement server retrieves advertisements 214 to display on the profiles of one or all members 104 of the community 106. In one implementation, the advertisement server 108 identifies the one or more common interests of a community 106. In one aspect, the one or more interests may be identified based on the aggregate signals in the communities between members. In another aspect, the interest of a member may be determined based on the content of the member's profile, such as, web page. In another aspect, the interest of the community may be determined from the context or textual content of the profiles of all the members of the community.

[0049] The advertisement server 108 retrieves advertisements 214 relevant to the one or more common interests of the community 106. The advertisement server 108 transmits the advertisements 214 to the profiles of one or more members 104 of the community 106 for display. In one implementation, the advertisements 214 are transmitted using the method described in United States patent application publication titled, "Methods and apparatus for serving relevant advertisements," (publication no.: US 2004/0059708 A1, inventors: Jeffrey A. Dean, Georges R. Harik, Paul Bucheit, publication date: March 25, 2004).

[0050] In one aspect, one or more advertisements are displayed on the profile of all members of a community. In another aspect, the number of advertisements displayed on a profile depends on the rank of the member within the community. One or more members in a community may also be members of other communities. In another aspect,

the advertisements displayed on a member's profile may be blended to reflect the common interest of the one or more communities to which the member belongs.

[0051] Fig. 4 depicts a flow chart of an example of a method for advertising to communities in an online social network. The profiles of members of the online social network are received by the advertisement server at 405. In one implementation, a server hosts the online social network 102 and the profiles of the members. The profile for each member 104 comprises one or more web pages. The server hosting the network also stores the links between the members 104 of the network 102. The content of the profiles of the members and the links between the members 104 are included in the information transmitted by the server hosting the online social network and received by the advertisement server 108. Since the number of members in the network as well as the number and types of links between members is dynamic, the content of profiles and the links between members is regularly monitored and updated. In one aspect, the server hosting the network may monitor and update this information and transmit the same to the advertisement server. In another aspect, the advertisement server may monitor and update this information.

[0052] The interactions between members 104 are analyzed using graph theory and network signals at 410. A member 104 is linked to one or more members 104 through links of different types. The links from one member 104 have associated weights based on the number and the type of the links. One example of a link is a friendship link where members designates other members as friends. Another example of a link is fan link where members designates themselves as fans of other members. A link may be established when a member frequently visits another member's profile. In one aspect, the weights associated with links are a function of the number and the type of the links. In another aspect, weight is associated based only on the number of links from a member. In another aspect, links are designated equal weight regardless of the type of the link.

[0053] The members 104 of a community 106 establish links with one another due to shared common interests. Using graph theory and the links between members 104, communities 106 of members 104 are identified at 415 such that each member 104 belongs to at least one community 106. In addition, a member may belong to more than one community. Subsequent to identifying communities, the profiles of the members of

each community are examined to determine the common interest of the community. In one aspect, the common interest is determined by examining the content of the profiles of each member of the community. In another aspect, the content of the profiles as well the aggregate signals within the community are used to determine the common interest of the community.

[0054] The members 104 of a community 106 are ranked to identify one or more influencers of the community at 420. Ranking assigns importance to profiles of members in a linked database. In one implementation, the rank assigned to a first member is calculated from the ranks of members linking to the first member. In one aspect, the member with the highest rank is designated as the influencer of the community. In another aspect, more than one member may be designated as influencers based on their rank.

[0055] Upon identifying communities 106 and designating influencers, the one or more common interests of members 104 are determined and advertisements relevant to the interest of the community are displayed on the profiles of the members at 425. In one aspect, the advertisements relevant to the interest of the community are displayed on the profiles of all the members of the community. In another aspect, the advertisements relevant to the community may be displayed on the profiles of the one or more influencers.

[0056] Fig. 5 depicts an example of profiles of members grouped into a community based on a common interest in action movies. In this implementation, the profiles of all members contain content related to movies. In addition, the members establish links to one another by visiting the profiles of other members, designating friendships, and commenting on profiles. Based on the content of each profile and the aggregate signals between members, a community of movie fans is identified. Advertisements displayed on the profiles of one or all members of this community may be related to action movies.

[0057] Fig. 6 depicts an example of blending advertisements for display on the profile of a member belonging to more than one community. In this implementation, based on content of profiles and member interactions, member 1 belongs to community 1 and member 2 belongs to community 2. Member 3 belongs to both communities 1 and 2

due to one or more overlapping interests between communities. The advertisements displayed on the profile of a member on community 1 and 2 are relevant to the interests of community 1 and 2, respectively. The blended advertisements displayed on the profile of member 3 are relevant to the interests of both communities.

[0058] Fig. 7 depicts an example of designating one member as a network influencer of a community. Member 1 is linked to all members of the community 106 by the same or different types of links. Due to the number and the types of links, member 1 ranks highest among all other members in the community. Therefore, member 1 is designated as the influencer of the community 106. Advertisers may target the entire community by displaying advertisements on the profile of member 1 alone.

[0059] A number of implementations have been described. Nevertheless, it will be understood that various modifications are possible. For example, the advertisement server 108 can include a micropayment system. In one implementation, the micropayment system can track a number of times a member selects a URL in an advertisement on a member's profile. Instead of charging the advertiser each time the URL is selected, the micropayment system can charge the advertiser after a charges associated with the clicks have crossed a predefined threshold, such as ten dollars. Alternatively, the micropayment system can accept a payment from an advertiser and create an account that the fees are debited against. Accordingly, other implementations are within the scope of the following claims.

[0060] In another implementation, a profile of a member may include web pages not associated with the online social network. These web pages may not include a standard structure of categories that describe a member. A member may design a web page that includes a variety of content including information about the member. For example, geocities.com hosts a variety of web sites that describe personal aspects of members of the web hosting service. In one aspect, membership to a community may be independent of web pages not associated with the online social network. In another aspect, the contents of the external web page may be used to determine interest of the member. In another aspect, links by members within the network to the external web pages may be ignored during identification of communities.

[0061] In another implementation, the contact information for a member may be determined from the member's profile. Subsequently, upon approval by the member, an advertiser may send advertisements to the member's contact information in lieu of or in addition to displaying advertisements on a web page that the member frequently visits.

[0062] In another implementation, an advertiser may be a member of the online social network. An advertiser may display advertisements on their profiles. Members interested in the products and services being advertised may establish links with the advertiser's profile. In this manner, an advertiser may attract consumers while also seeking out consumers.

[0063] In addition, the logic flows depicted in the figures do not require the particular order shown, or sequential order, to achieve desirable results. In addition, other steps may be provided, or steps may be eliminated, from the described flows, and other components may be added to, or removed from, the described systems. Accordingly, other implementations are within the scope of the following claims.

WHAT IS CLAIMED IS:

1. A computer-implemented method for displaying advertisements to members of a network, the method comprising:

identifying one or more communities within a network, wherein the community comprises a plurality of members of the network;

identifying one or more influencers in the one or more communities; and

placing one or more advertisements at the profiles of one or more members in the one or more communities.

2. The method of claim 1, further comprising receiving information pertaining to a plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and links between the plurality of members.

3. The method of claim 2, wherein identifying the one or more communities comprises grouping members based on the links established between the members of the network.

4. The method of claim 3, wherein the link connects a first member with one or more members of the network.

5. The method of claim 3, wherein each link has a weight.

6. The method of claim 2, further comprising identifying one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members.

7. The method of claim 2, further comprising ranking the plurality of members belonging to each of the one or more communities based on the links between the members of each community.

8. The method of claim 7, wherein the influencer is the member with the highest rank.

9. The method of claim 2, wherein the network comprises an online social network.

10. The method of claim 9, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

11. The method of claim 1, wherein a member of the network belongs to one or more of the plurality of communities.

12. The method of claim 1, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

13. An advertisement server for displaying advertisements to members of a network, the advertisement server comprising:

a community identifier configured to

identify one or more communities, and

identify one or more influencers in the one or more communities; and

an advertisement inventory configured to store advertisements to be displayed on the profiles of one or more members of the identified communities.

14. The advertisement server of claim 13, further comprising a network inventory configured to store the information pertaining to the plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and links between the plurality of members.

15. The advertisement server of claim 14, wherein the community identifier is further configured to group members based on the links established between the members of the network.

16. The advertisement server of claim 15, wherein the link connects a first member with one or more members of the network.

17. The advertisement server of claim 15, wherein each link has a weight.

18. The advertisement server of claim 14, wherein the community identifier is further configured to identify one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members.

19. The advertisement server of claim 14, wherein the community identifier is further configured to rank the plurality of members belonging to each of the one or more communities based on the links between the members of each community.

20. The advertisement server of claim 19, wherein the influencer is the member with the highest rank.

21. The advertisement server of claim 14, wherein the network comprises an online social network.

22. The advertisement server of claim 21, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

23. The advertisement server of claim 13, wherein a member of the network belongs to one or more of the plurality of communities.

24. The advertisement server of claim 13, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

25. An advertisement server for displaying advertisements to members of a network, the advertisement server comprising:

a means for

identifying one or more communities, and

identifying one or more influencers in the one or more communities; and

a means for storing advertisements to be displayed on the profiles of one or more members of the identified communities.

26. The advertisement server of claim 25, further comprising a means for storing the information pertaining to the plurality of members belonging to the network, wherein the information comprises content of profiles of the plurality of members and links between the plurality of members.

27. The advertisement server of claim 26, wherein the means for identifying one or more communities and identifying one or more influencers in the one or more communities is further configured to group members based on the links established between the members of the network.

28. The advertisement server of claim 27, wherein the link connects a first member with one or more members of the network.

29. The advertisement server of claim 27, wherein each link has a weight.

30. The advertisement server of claim 26, wherein the means for identifying one or more communities and identifying one or more influencers in the one or more communities is further configured to identify one or more common interests of the plurality of members of a community based on the content of the profiles of the plurality of members.

31. The advertisement server of claim 26, wherein the means for identifying one or more communities and identifying one or more influencers in the one or more communities is further configured to rank the plurality of members belonging to

each of the one or more communities based on the links between the members of each community.

32. The advertisement server of claim 31, wherein the influencer is the member with the highest rank.

33. The advertisement server of claim 26, wherein the network comprises an online social network.

34. The advertisement server of claim 33, wherein the profile comprises one or more web pages stored on a server hosting the online social network.

35. The advertisement server of claim 25, wherein a member of the network belongs to one or more of the plurality of communities.

36. The advertisement server of claim 25, wherein the one or more advertisements are placed solely on the profiles of the one or more influencers.

ABSTRACT

A computer-implemented method for displaying advertisements to members of a network comprises identifying one or more communities of members, identifying one or more influencers in the one or more communities, and placing one or more advertisements at the profiles of one or more members in the identified one or more communities.

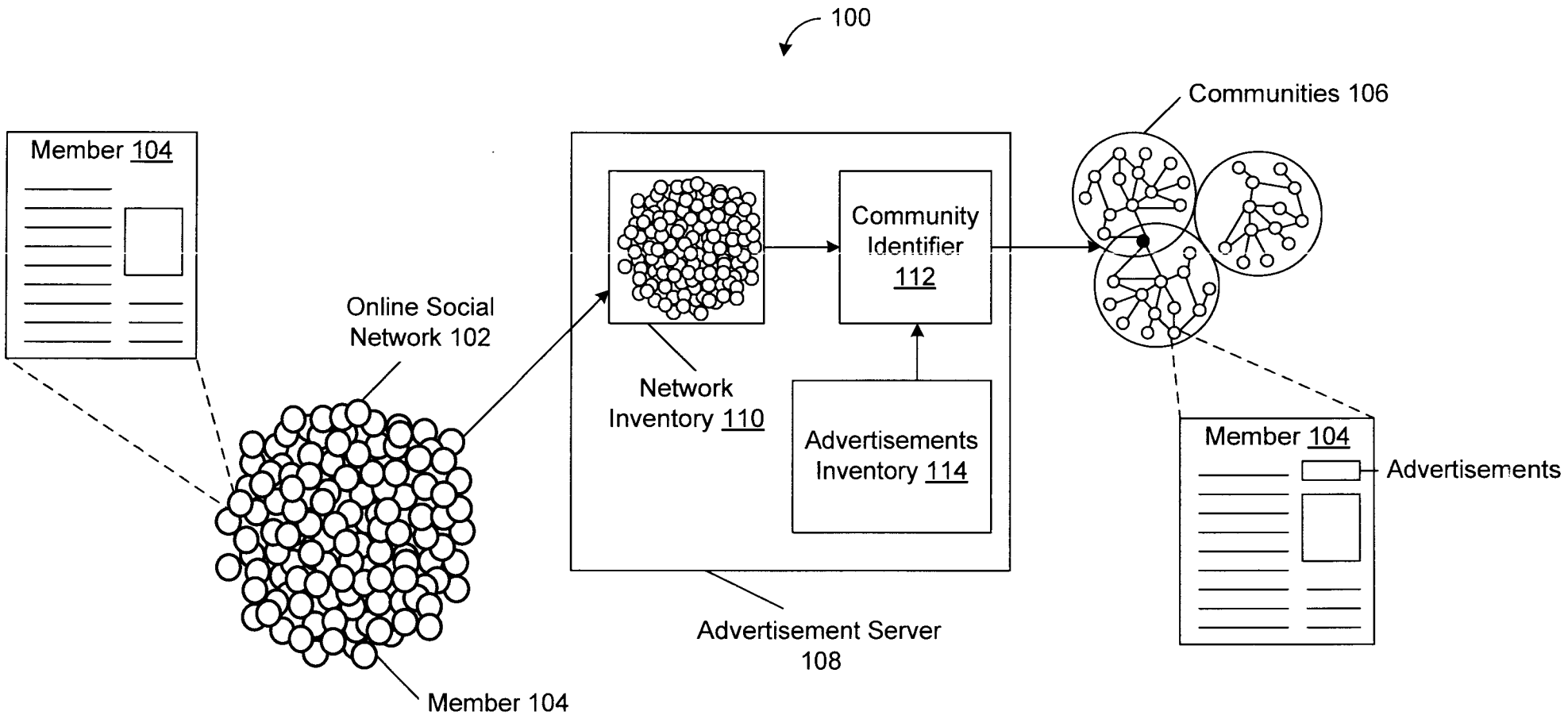

100
Communities 106
Member 104
Online Social Network 102
Community Identifier 112
Network Inventory 110
Advertisements Inventory 114
Member 104
Advertisements
Advertisement Server 108
Member 104

FIG. 1

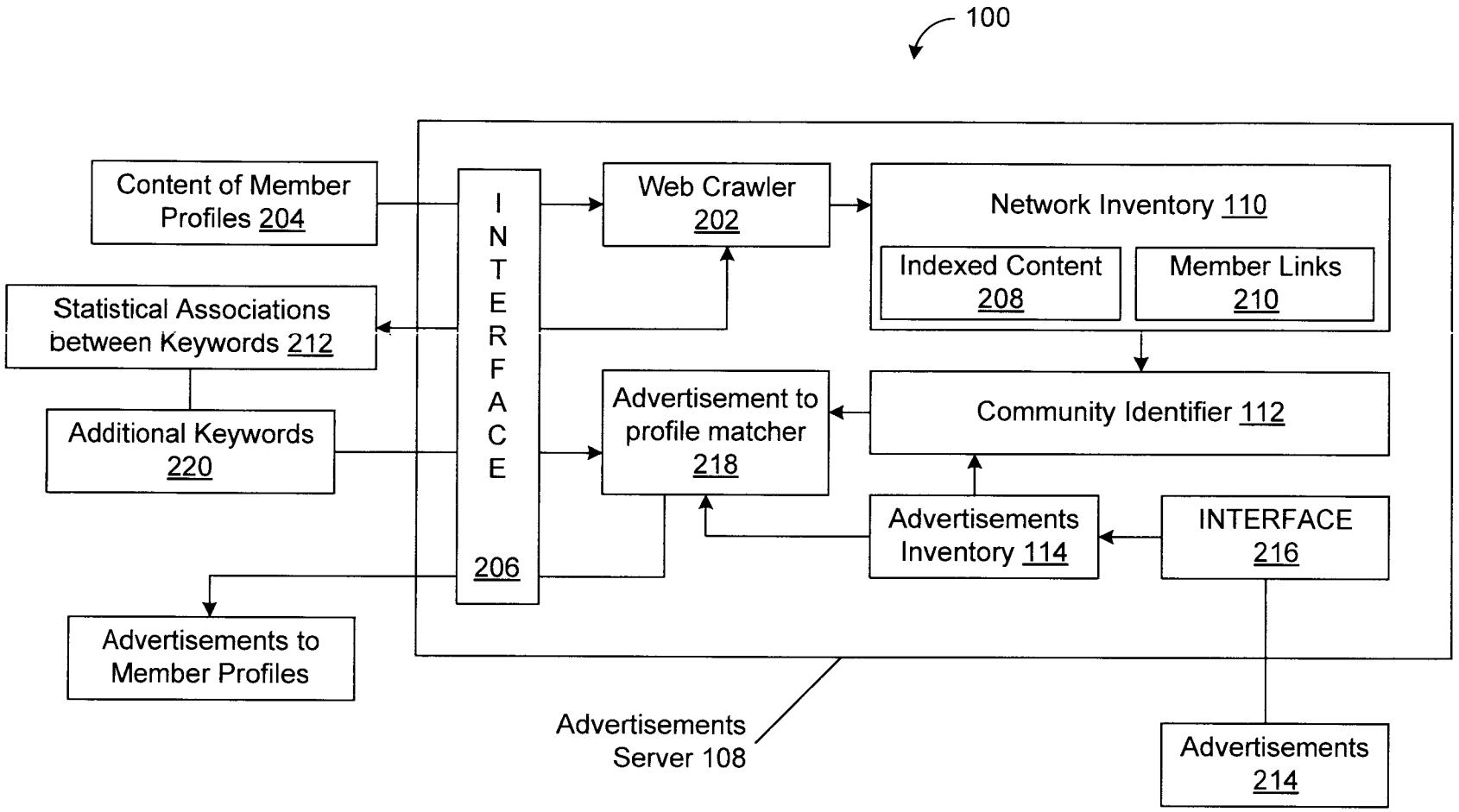

100
Content of Member Profiles 204
Statistical Associations between Keywords 212
Additional Keywords 220
Advertisements to Member Profiles
INTERFACE 206
Web Crawler 202
Advertisement to profile matcher 218
Network Inventory 110
Indexed Content 208
Member Links 210
Community Identifier 112
Advertisements Inventory 114
INTERFACE 216
Advertisements Server 108
Advertisements 214

FIG. 2

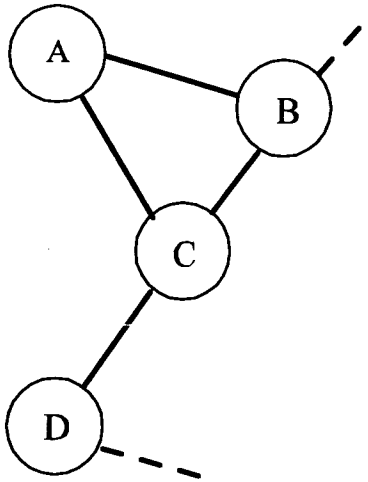


FIG. 3A

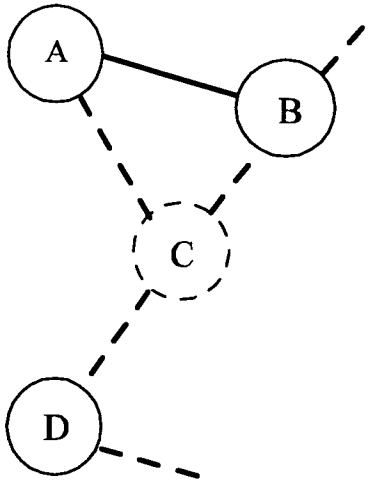


FIG. 3C

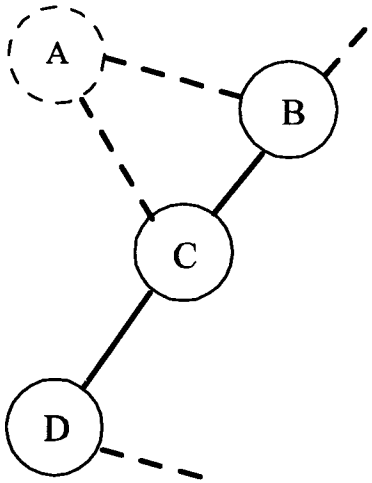


FIG. 3B

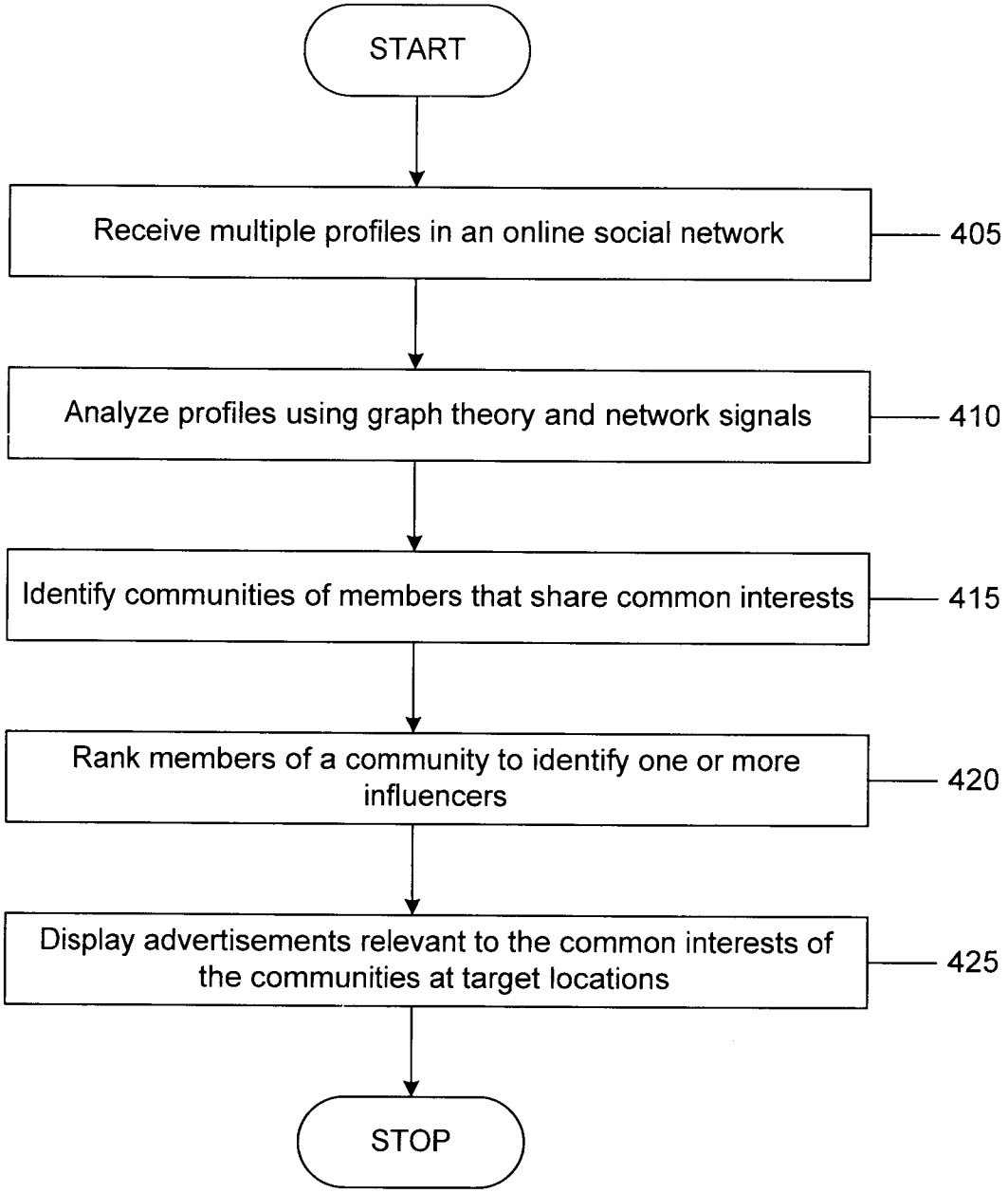

START
Receive multiple profiles in an online social network
405
Analyze profiles using graph theory and network signals
410
Identify communities of members that share common interests
415
Rank members of a community to identify one or more influencers
420
Display advertisements relevant to the common interests of the communities at target locations
425
STOP

FIG. 4

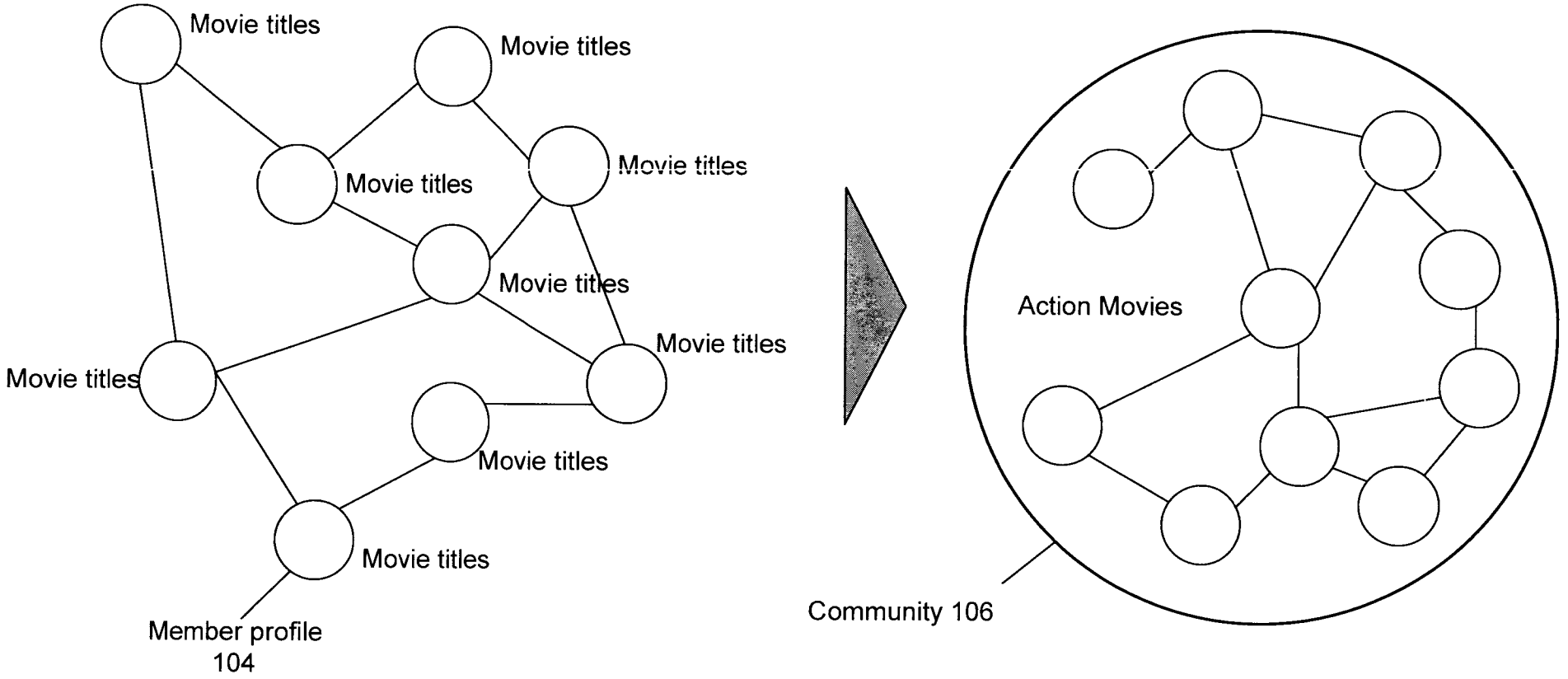

Movie titles
Movie titles
Movie titles
Movie titles
Movie titles
Movie titles
Movie titles
Movie titles
Movie titles
Member profile
104
Action Movies
Community 106

FIG. 5

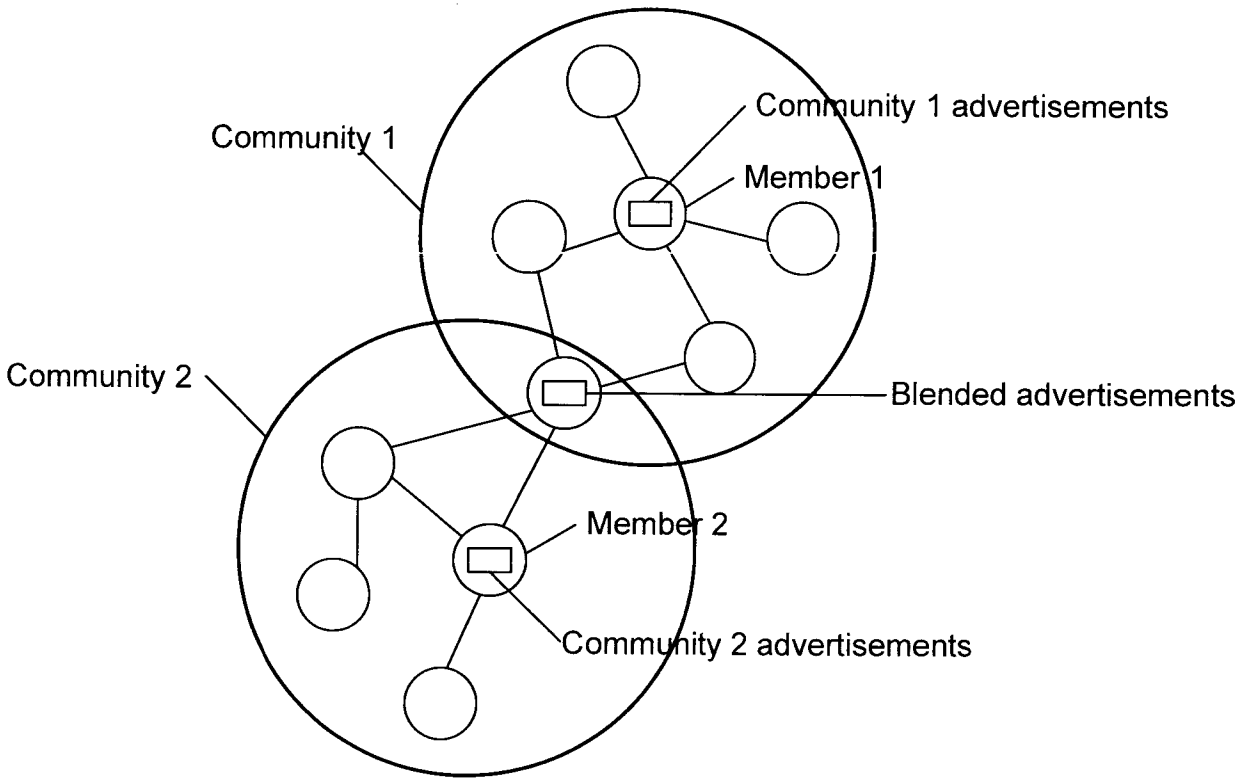

Community 1
Community 1 advertisements
Member 1
Community 2
Blended advertisements
Member 2
Community 2 advertisements

FIG. 6

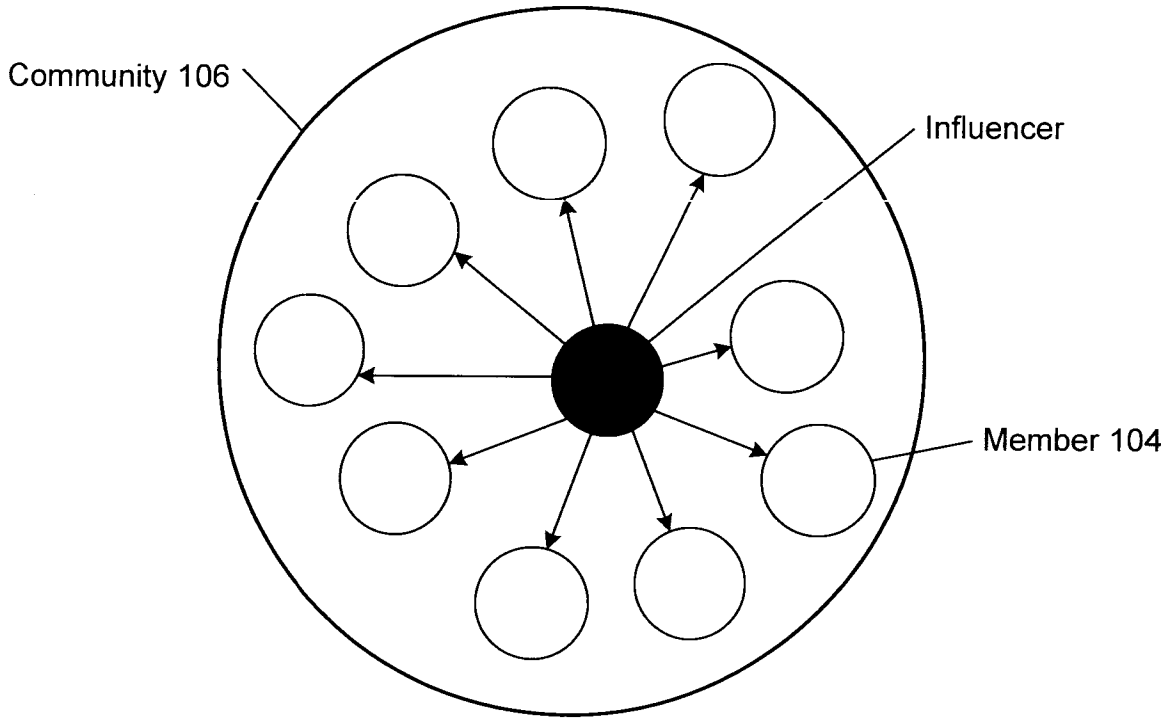


FIG. 7

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	16113-206001 / GP-968-00-
	Application Number	NA
Title of Invention	NETWORK NODE AD TARGETING	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Applicant Information:

Applicant 1

Applicant Authority ◉ Inventor ○ Legal Representative under 35 U.S.C. 117 ○ Party of Interest under 35 U.S.C. 118

Prefix	Given Name	Middle Name	Family Name	Suffix
	Terrence		Rohan	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Atherton	State/Province	CA	Country of Residence[i]	US

Citizenship under 37 CFR 1.41(b)[i] US

Mailing Address of Applicant:

Address 1	399 Stevick Drive		
Address 2			
City	Atherton	State/Province	CA
Postal Code	94027	Country[i]	US

Applicant 2

Applicant Authority ◉ Inventor ○ Legal Representative under 35 U.S.C. 117 ○ Party of Interest under 35 U.S.C. 118

Prefix	Given Name	Middle Name	Family Name	Suffix
	Tomasz	J.	Tunguz-Zawislak	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	San Francisco	State/Province	CA	Country of Residence[i]	US

Citizenship under 37 CFR 1.41(b)[i] US

Mailing Address of Applicant:

Address 1	2055 Sacramento Street		
Address 2			
City	San Francisco	State/Province	CA
Postal Code	94109	Country[i]	US

Applicant 3

Applicant Authority ◉ Inventor ○ Legal Representative under 35 U.S.C. 117 ○ Party of Interest under 35 U.S.C. 118

Prefix	Given Name	Middle Name	Family Name	Suffix
	Scott	G.	Sheffer	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Palo Alto	State/Province	CA	Country of Residence[i]	US

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	16113-206001 / GP-968-00-
	Application Number	
Title of Invention	NETWORK NODE AD TARGETING	

Citizenship under 37 CFR 1.41(b) i	US				
Mailing Address of Applicant:					
Address 1	# 1007				
Address 2					
City	Palo Alto	**State/Province**	CA		
Postal Code	94303	**Country**i	US		

Applicant 4

Applicant Authority	◉ Inventor	○ Legal Representative under 35 U.S.C. 117	○ Party of Interest under 35 U.S.C. 118

Prefix	Given Name	Middle Name	Family Name	Suffix
	Jeremiah		Harmsen	

Residence Information (Select One)	◉ US Residency	○ Non US Residency	○ Active US Military Service		
City	Mountain View	**State/Province**	CA	**Country of Residence** i	US
Citizenship under 37 CFR 1.41(b) i	US				
Mailing Address of Applicant:					
Address 1	1478 Kings Lane				
Address 2					
City	Mountain View	**State/Province**	CA		
Postal Code	94043	**Country**i	US		

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	26192		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	NETWORK NODE AD TARGETING		
Attorney Docket Number	16113-206001 / GP-968-00-	**Small Entity Status Claimed**	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		**Sub Class (if any)**	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)		**Suggested Figure for Publication (if any)**	

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	16113-206001 / GP-968-00-
	Application Number	
Title of Invention	NETWORK NODE AD TARGETING	

Publication Information:	
☐	Request Early Publication (Fee required at time of Request 37 CFR 1.219)
☒	Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not been and will not be the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ US Representative (37 CFR 11.9)
Customer Number	26192		

Domestic Priority Information:

This section allows for the applicant to claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c). Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.

Prior Application Status		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)

Additional Domestic Priority Data may be generated within this form by selecting the **Add** button.

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).

Remove			
Application Number	Country i	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
			○ Yes ○ No

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Assignee Information:

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.

Assignee 1

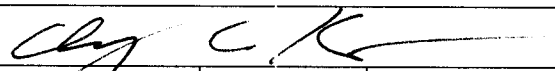
If the Assignee is an Organization check here. ☒

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	16113-206001 / GP-968-00-
	Application Number	
Title of Invention	NETWORK NODE AD TARGETING	

Organization Name	Google Inc.		
Mailing Address Information:			
Address 1	1600 Amphitheatre Parkway		
Address 2			
City	Mountain View	**State/Province**	CA
Country i	US	Postal Code	94043
Phone Number		Fax Number	
Email Address			
Additional Assignee Data may be generated within this form by selecting the **Add** button.			

Signature:

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.					
Signature				Date (YYYY-MM-DD)	2006-12-29
First Name	Cheng C.	Last Name	Ko	Registration Number	54227

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

NONPUBLICATION REQUEST UNDER 35 U.S.C. 122(b)(2)(B)(i)		
	First Named Inventor	Terrence Rohan, et al.
	Title	NETWORK NODE AD TARGETING
	Attorney Docket Number	16113-206001 / GP-968-00-US

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

I hereby request that the attached application not be published under 35 U.S.C. 122(b).

Signature	December 29, 2006 Date
Cheng C. Ko Typed or printed name	54,227 Registration Number, if applicable
(858) 678-5070 Telephone Number	

This request must be signed in compliance with 37 CFR 1.33(b) and submitted with the application **upon filing**.

Applicant may rescind this nonpublication request at any time. If applicant rescinds a request that an application not be published under 35 U.S.C. 122(b), the application will be scheduled for publication at eighteen months from the earliest claimed filing date for which a benefit is claimed.

If applicant subsequently files an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing, the applicant **must** notify the United States Patent and Trademark Office of such filing within forty-five (45) days after the date of the filing of such foreign or international application. **Failure to do so will result in abandonment of this application (35 U.S.C. 122(b)(2)(B)(iii)).**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Terrence Rohan, et al. Art Unit : Unknown
Serial No. : Unknown Examiner : Unknown
Filed : Herewith
Title : NETWORK NODE AD TARGETING

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants request consideration of the references listed on the attached PTO-1449 form. Under 37 C.F.R. § 1.98 (a)(2)(ii), only copies of foreign patent documents and/or non-patent literature are enclosed. Copies of any listed U.S. patents or U.S. patent application publications can be provided upon request.

This statement is being filed with the application. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: December 29, 2006

Cheng C. Ko
Reg. No. 54,227

Fish & Richardson P.C.
PTO Customer No. 26192
Telephone: (858) 678-5070
Facsimile: (858) 678-5099
10695364.doc

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16113-206001	Application No.
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Terrence Rohan, et al.	
		Filing Date December 29, 2006	Group Art Unit

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation Yes	Translation No
	AL							
	AM							
	AN							
	AO							
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AQ	Baumes, Jeffrey, et al., Efficient Identification of Overlapping Communities, Intelligence and Security Informatics, Springer Berlin/Heidelberg publ., pp. 27-36 (2005)
	AR	Olsen, Stefanie, Turning Social Network Traffic Into Dollars, www.news.com, 10/18/2006
	AS	
	AT	

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Electronic Acknowledgement Receipt

EFS ID:	1408379
Application Number:	11618506
International Application Number:	
Confirmation Number:	5917
Title of Invention:	NETWORK NODE AD TARGETING
First Named Inventor/Applicant Name:	Terrence Rohan
Customer Number:	26192
Filer:	CHENG C. KO/Devon Weide
Filer Authorized By:	CHENG C. KO
Attorney Docket Number:	16113-206001/GP-968-00-US
Receipt Date:	29-DEC-2006
Filing Date:	
Time Stamp:	18:28:07
Application Type:	Utility

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	trans.PDF	45740	no	2
Warnings:					

Information:					
2		application.pdf	131708	yes	22
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	16	
	Claims		17	21	
	Abstract		22	22	
Warnings:					
Information:					
3	Drawings	drawings.PDF	107548	no	7
Warnings:					
Information:					
4	Application Data Sheet	ads.pdf	279723	no	5
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
5	Nonpublication request from applicant.	nonpub.PDF	41197	no	1
Warnings:					
Information:					
6	Information Disclosure Statement (IDS) Filed	ids.PDF	65372	no	2
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
7	NPL Documents	ref1.PDF	190586	no	3
Warnings:					
Information:					

8	NPL Documents	ref2.pdf	175101	no	10
Warnings:					
Information:					
		Total Files Size (in bytes):	1036975		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

PTO/SB/06 (12-04)
Approved for use through 7/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD
Substitute for Form PTO-875

Application or Docket Number: 11/618,506

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY FEE ($)		OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))							300
SEARCH FEE (37 CFR 1.16(k), (i), or (m))							500
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))							200
TOTAL CLAIMS (37 CFR 1.16(i))	36 minus 20 =	16	X$25=		OR	X$50	800
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =		X$100=			X$200=	
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR						
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			N/A			N/A	
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1800

APPLICATION AS AMENDED – PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)		OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	X =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X =		OR	X =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	X =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X =		OR	X =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.