



## (51) International Patent Classification:

G06F 17/00 (2006.01) G06F 15/16 (2006.01)  
G06Q 50/30 (2012.01) G06F 3/14 (2006.01)

## (21) International Application Number:

PCT/US2012/026410

## (22) International Filing Date:

23 February 2012 (23.02.2012)

## (25) Filing Language:

English

## (26) Publication Language:

English

## (30) Priority Data:

|            |                               |    |
|------------|-------------------------------|----|
| 61/446,001 | 23 February 2011 (23.02.2011) | US |
| 61/449,033 | 3 March 2011 (03.03.2011)     | US |
| 61/591,696 | 27 January 2012 (27.01.2012)  | US |
| 61/599,355 | 15 February 2012 (15.02.2012) | US |
| 61/600,553 | 17 February 2012 (17.02.2012) | US |

## (72) Inventors; and

(71) Applicants : SPIVACK, Nova [US/US]; 4111 Colbath Avenue, Sherman Oaks, CA 91423 (US). TER HEIDE, Dominiek [NL/NL]; Westerdok 394, NL-1013 BH Amsterdam (NL).

(74) Agents: FU, Yenyun et al.; Perkins Coie LLP, P.O. Box 1208, Seattle, WA 98111-1208 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

— with international search report (Art. 21(3))  
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

## (88) Date of publication of the international search report:

22 November 2012

(54) Title: ADAPTIVE SYSTEM ARCHITECTURE FOR IDENTIFYING POPULAR TOPICS FROM MESSAGES

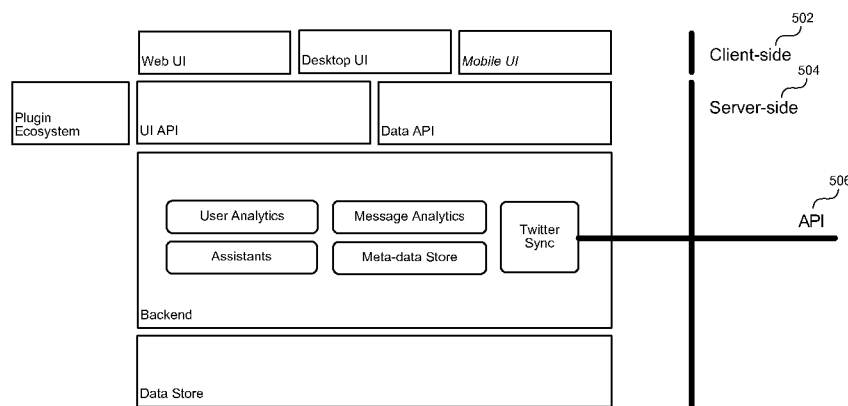


FIG. 5

(57) Abstract: An adaptive system architecture for identifying popular topics from messages are disclosed. In one aspect, one example of a system which includes a client device which determines, from the set of messages, commonly or frequently occurring topics and computes at least a portion of the analytics for the commonly or frequently occurring topics in the set of messages that indicate respective levels of popularity. Other portions of the analytics used to determine the respective levels of trendiness of the commonly or frequently occurring topics can be computed by other client devices. Such computation can take place in the web-browsers forming a web-based crowd computing platform for message stream analysis.

**A. CLASSIFICATION OF SUBJECT MATTER****G06F 17/00(2006.01)i, G06Q 50/30(2012.01)i, G06F 15/16(2006.01)i, G06F 3/14(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)

G06F 17/00; G07G 1/14; G06Q 30/00; G06F 17/30; G06F 7/00; G07G 1/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) &amp; Keywords: popularity topic, user activity, social media, targeting, the interests of the user, frequent keyword

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                             | Relevant to claim No. |
|-----------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Y         | US 2010-0030648 A1 (MANOLESCU DRAGOS et al.) 04 February 2010<br>See paragraph 15 - paragraph 17; paragraph 26 - paragraph 27; | 1,5-6,8-15            |
| A         | paragraph 34 - paragraph 38; claim 1, and figures 1-20.                                                                        | 2-4,7,16-69           |
| Y         | US 2006-0282328 A1 (THOMAS A. GERACE et al.) 14 December 2006<br>See paragraph 8 - paragraph 9; paragraph 21; paragraph 25;    | 1,5-6,8-15            |
| A         | paragraph 30; paragraph 60; paragraph 86; paragraph 104;<br>paragraph 101; paragraph 130; and claims 1-46.                     | 2-4,7,16-69           |
| A         | US 2010-0114946 A1 (KUMAR MANI et al.) 06 May 2010<br>See paragraph 19; paragraph 24 - paragraph 30;                           | 1-69                  |
|           | paragraph 63 - paragraph 64; claims 1,4,5,7,12,17, and figures 1-4.                                                            |                       |
| A         | US 2008-0275861 A1 (BALUJA SHUMEET et al.) 06 November 2008<br>See paragraph 34 - paragraph 36; paragraph 45;                  | 1-69                  |
|           | paragraph 65; paragraph 141; claim 1, and figure 10.                                                                           |                       |



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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

27 SEPTEMBER 2012 (27.09.2012)

Date of mailing of the international search report

**28 SEPTEMBER 2012 (28.09.2012)**

Name and mailing address of the ISA/KR

Korean Intellectual Property Office  
189 Cheongsa-ro, Seo-gu, Daejeon Metropolitan  
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

PARK, SANG HYUN

Telephone No. 82-42-481-8263



**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2012/026410**

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)                                                                                                                                                                                                                                                                                                                                                                          | Publication<br>date                                                                                                                                                                                                                                                                  |
|-------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| US 2010-0030648 A1                        | 04.02.2010          | None                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                      |
| US 2006-0282328 A1                        | 14.12.2006          | AU 2006-240230 A1<br>AU 2006-240230 B2<br>AU 2006-257782 A1<br>AU 2006-257782 B2<br>CA 2605995 A1<br>CA 2611974 A1<br>CN 101512577 A<br>EP 1894152 A2<br>EP 1896987 A2<br>EP 1969543 A2<br>EP 2242012 A1<br>EP 2244220 A1<br>US 2006-0242554 A1<br>US 2007-0118802 A1<br>WO 2006-115908 A2<br>WO 2006-115908 A3<br>WO 2006-135920 A2<br>WO 2006-135920 A3<br>WO 2007-056378 A2<br>WO 2007-056378 A3 | 02.11.2006<br>08.04.2010<br>21.12.2006<br>08.10.2009<br>02.11.2006<br>21.12.2006<br>19.08.2009<br>05.03.2008<br>12.03.2008<br>17.09.2008<br>20.10.2010<br>27.10.2010<br>26.10.2006<br>24.05.2007<br>02.11.2006<br>02.11.2006<br>21.12.2006<br>21.12.2006<br>18.05.2007<br>18.05.2007 |
| US 2010-0114946 A1                        | 06.05.2010          | None                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                      |
| US 2008-0275861 A1                        | 06.11.2008          | KR 10-2010-0051593 A<br>US 8055664 B2<br>WO 2008-134772 A1                                                                                                                                                                                                                                                                                                                                          | 17.05.2010<br>08.11.2011<br>06.11.2008                                                                                                                                                                                                                                               |