



- (51) **International Patent Classification:**
G06F 17/27 (2006.01) *G10L 25/00* (2013.01)
- (21) **International Application Number:**
PCT/US2013/044834
- (22) **International Filing Date:**
7 June 2013 (07.06.2013)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/657,723 8 June 2012 (08.06.2012) US
13/913,173 7 June 2013 (07.06.2013) US
- (71) **Applicant:** APPLE INC. [US/US]; 1 Infinite Loop, Cupertino, CA 95014 (US).
- (72) **Inventor:** KEEN, Daniel; 1 Infinite Loop, Cupertino, CA 95014 (US).
- (74) **Agents:** BREGMAN, Dion, M. et al.; Morgan Lewis & Bockius LLP, 2 Palo Alto Square, 3000 El Camino Real, Suite 700, Palo Alto, CA 94306 (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, BN, 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, 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, PA, 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, 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, KM, 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:

13 February 2014

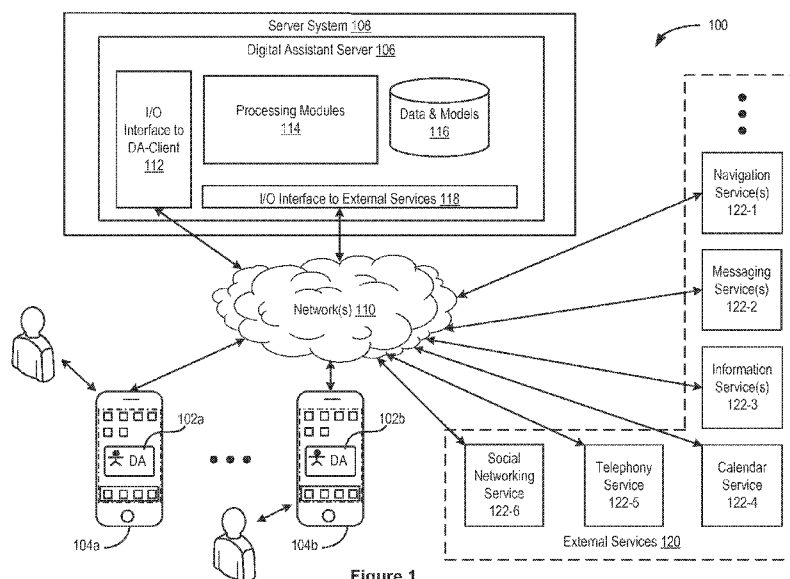
(54) Title: RECOGNIZING TEXTUAL IDENTIFIERS WITHIN WORDS

Figure 1

(57) **Abstract:** Methods and systems for recognizing textual identifiers within a plurality of words are described. A textual representation of a voice input is received from a user. The textual representation includes a plurality of words. A keyword is identified in the textual representation. It is determined whether one or more words adjacent to the keyword correspond to a textual identifier of a collection of textual identifiers. Responsive to a determination that the one or more adjacent words correspond to a textual identifier, the keyword and the one or more adjacent words are replaced with the textual identifier.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US13/44834

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☒ Claims Nos.: 5-8, 11-14, 16-21, 26, 27, 32-36, 41-44, 47-50, 52-57, 62, 63
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

10/04/2013 20:12:20
International application No.

PCT/US13/44834

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F 17/27; G10L 25/00 (2013.01)

USPC - 704/9, 275

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) Classification(s): G06F 17/27; G10L 15/00, 15/04, 17/00, 21/00, 25/00 (2013.01)

USPC Classification(s): 704/9, 208, 231, 246, 246, 251, 257, 275

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)

MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); ProQuest; IEEE; Google/Google Scholar; text*, identifier*, user*, voice*, input*, words*, keyword*, adjacent*, adjacent*, processor*, electronic*, device*

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2012/0016678 A1 (GRUBER, T et al.) 19 January 2012, Figures 1, 3, 4, 7-9, 22, Paragraphs [0077], [0079], [0080], [0083], [0173], [0174], [0309]-[0313], [0318], [0319], [1024]	1, 2, 9/1, 9/2, 15/1, 15/2, 22, 23, 28-31, 37, 38, 45/37, 45/38, 51/37, 51/38, 58, 59 3/1, 3/2, 4/3/1, 4/3/2, 10/9/1, 10/9/2, 24/22, 24/23, 25/24/22, 25/24/23, 39/37, 39/38, 40/39/37, 40/39/38, 46/45/37, 46/45/38, 60/58, 60/59, 61/60/58 and 61/60/59
Y	US 2012/0136985 A1 (POPESCU, A et al.) 31 May 2012, Paragraph [0036], [0041], [0064]	3/1, 3/2, 4/3/1, 4/3/2, 10/9/1, 10/9/2, 24/22, 24/23, 25/24/22, 25/24/23, 39/37, 39/38, 40/39/37, 40/39/38, 46/45/37, 46/45/38, 60/58, 60/59, 61/60/58 and 61/60/59

☒ Further documents are listed in the continuation of Box C.

* 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

06 December 2013 (06.12.2013)

Date of mailing of the international search report

20 DEC 2013

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents

P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

Authorized officer:

Shane Thomas

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US13/44834

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 8195468 B2 (WEIDER, C et al.) 05 June 2012, entire document	1-4, 9, 10, 15, 22-25, 28-31, 37-40, 45, 46, 51, 58-61
A	WO 2002/31814 A1 (ZHOU, G) 18 April 2002, entire document	1-4, 9, 10, 15, 22-25, 28-31, 37-40, 45, 46, 51, 58-61