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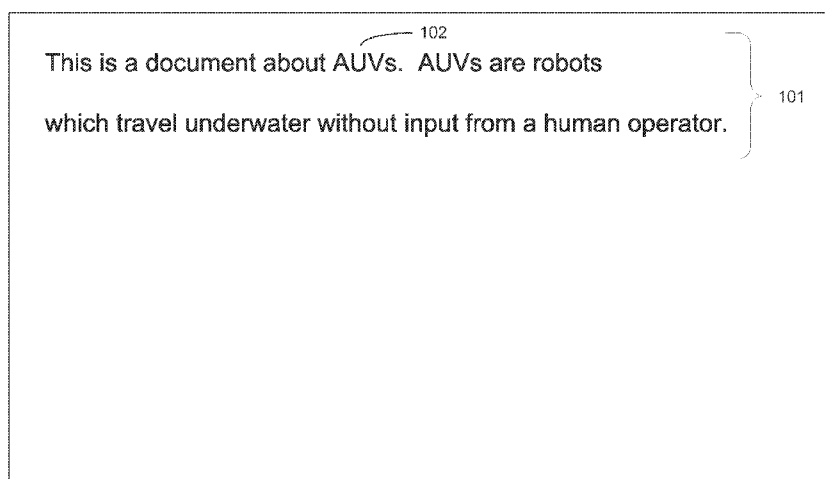


FIG. 1
100

(57) Abstract: Relevant content from target content may be identified. The relevant content may be matched against a concept graph. The concept graph may include one or more concepts and associations between the concepts. Concepts may be determined based on the matching. The relevant content may be augmented with indicators to indicate the determined concepts. The determined concepts may be searched in one or more search spaces to obtain search results. Access may be granted to information indicated by the search results.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2014/023224

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F 17/30 (2014.01)

USPC - 707/737

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) - G06F 17/30, G06Q 30/00, G06N 5/02 (2014.01)

USPC - 707/737, 707/E17.089, 707/E17.014, 707/749, 707/E17.046, 707/736, 705/14.53, 705/14.55, 706/54

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

CPC - G06F 17/2775, G06F 17/2785, G06N 5/02, G06F 17/28, G06F 17/30705, G06F 17/30734, G06N 5/043, G06F 17/30867, G06Q 30/0277, G06Q 30/0257, G06Q 30/02, G06Q 30/0242, G06Q 30/0251, G06Q 30/0255, G06F 17/30914 (2014.02)

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

Orbit, Google Patents, Google, Google Scholar.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MA et al. "Interest-based personalized search." ACM Transactions on Information Systems (TOIS), Vol. 25, No. 1, Article 5. February 2007 (02.2007). Retrieved from <https://www.csupomona.edu/~zma/research/Interest-Based%20Personalized%20Search.pdf>, entire document	1-16
Y	US 2012/0102050 A1 (BUTTON et al) 26 April 2012 (26.04.2012), entire document	1-16
Y	US 2012/0054440 A1 (DOIG et al) 01 March 2012 (01.03.2012), entire document	8
Y	US 2012/0110015 A1 (NATH et al) 03 May 2012 (03.05.2012), entire document	12, 13, 16
A	US 2006/0122884 A1 (GRAHAM et al) 08 June 2006 (08.06.2006), entire document	1-16
A	US 2009/0327205 A1 (SWEENEY) 31 December 2009 (31.12.2009), entire document	1-16
A	US 2011/0179032 A1 (CEUSTERS et al) 21 July 2011 (21.07.2011), entire document	1-16
A	US 2011/0113032 A1 (BOSCOLO et al) 12 May 2011 (12.05.2011), entire document	1-16

☐ 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

07 September 2014

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2014/023224

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.:
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:
see extra sheet

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

International application No.

PCT/US2014/023224

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-3, drawn to a computer implemented method of identifying relevant content and matching the content against a concept graph.

Group II, claims 4-15, drawn to a computer implemented method and system for indicating phrases of interest in a text segment and displaying a document with visual properties identifying the phrase of interest.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention: matching the relevant content against a concept graph, wherein the concept graph includes a plurality of concepts and associations between the plurality of concepts; determining concepts based on the matching; augmenting the relevant content with indicators to indicate the determined concepts; as claimed therein is not present in the invention of Group II. The special technical feature of the Group II invention: sending a first request, wherein the first request includes at least a text segment of a document; receiving a first response, wherein the first response indicates phrases of interest in the at least a text segment based on a reference, wherein the reference includes a plurality of phrases and associations between the plurality of phrases; displaying the document with visual properties identifying the phrases of interest, wherein in response to user input corresponding to a phrase of interest, a second request is sent to retrieve information associated with the phrase of interest from a data source as claimed therein is not present in the invention of Groups I.

Since none of the special technical features of the Group I or II inventions are found in more than one of the inventions, unity of invention is lacking.