

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 March 2011 (03.03.2011)

PCT

(10) International Publication Number
WO 2011/026145 A3

- (51) International Patent Classification:
G06F 17/30 (2006.01)
- (21) International Application Number:
PCT/US2010/047409
- (22) International Filing Date:
31 August 2010 (31.08.2010)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/238,582 31 August 2009 (31.08.2009) US
- (71) Applicant (for all designated States except US):
GOOGLE INC. [US/US]; 1600 Amphitheatre Parkway,
Mountain View, California 94043 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **EFFRAT,
Jonathan J.** [US/US]; 537 Devonshire Court, Mountain
View, California 94043 (US). **LECOMTE, David E.**
[FR/US]; 537 Devonshire Court, Mountain View, Cali-
fornia 94043 (US). **DHANARAJ, Christina R.** [US/US];
817 Sevely Drive, Mountain View, California 94041
(US). **HANSSON, Othar** [US/US]; 881 Markham Ter-
race, Sunnyvale, California 94086 (US).
- (74) Agent: **TROESCH, Hans R.**; Fish & Richardson P.C.,
P.O. Box 1022, Minneapolis, Minnesota 55440-1022
(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, RO, RS, RU, 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, 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, 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:
25 August 2011

(54) Title: FRAMEWORK FOR SELECTING AND PRESENTING ANSWER BOXES RELEVANT TO USER INPUT AS QUERY SUGGESTIONS

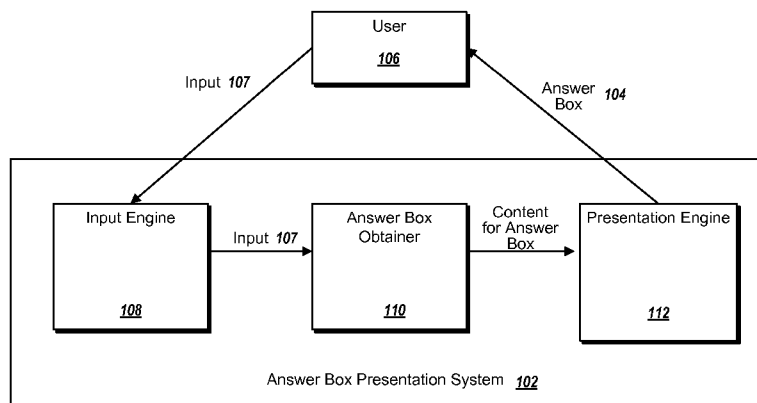


FIG. 1

(57) Abstract: Methods, systems, and apparatus, including computer programs encoded on computer storage media, for identifying answer boxes for presentation to a user. In general, one aspect of the subject matter described in this specification can be embodied in methods that include the actions of, while receiving an input entered in a search engine query input field by a first user, and before the first user has submitted the input as a search request, obtaining content for an answer box for the input and presenting the answer box to the first user. The answer box can be an answer box associated with a dominant query for the input, or can be an answer box identified from historical answer box data for the input.

WO 2011/026145 A3

INTERNATIONAL SEARCH REPORT

International application No PCT/US2010/047409

A. CLASSIFICATION OF SUBJECT MATTER
 INV. G06F17/30
 ADD.

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

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 practical, search terms used)
 EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/283468 A1 (KAMVAR SEPANDAR D [US] ET AL) 22 December 2005 (2005-12-22) paragraphs [0003] - [0005], [0021], [0022], [0035], [0036], [0040] - [0044], [0047] - [0049], [0054], [0057], [0069]	1-12, 15, 17, 18, 21, 29
X	----- US 2006/248078 A1 (GROSS WILLIAM [US] ET AL) 2 November 2006 (2006-11-02) paragraphs [0005], [0033], [0042], [0043], [0046], [0047], [0050], [0066] - [0069], [0085], [0093] <p style="text-align: center;">----- -/--</p>	1-8, 11, 15, 17, 18, 20-30

<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> 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 document 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 <p style="text-align: center;">30 June 2011</p>	Date of mailing of the international search report <p style="text-align: center;">07/07/2011</p>
--	---

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer <p style="text-align: center;">Bykowski, Artur</p>
--	--

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2010/047409

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>BAST H ET AL: "Type less, find more: fast autocompletion search with a succinct index", PROCEEDINGS OF THE TWENTY-NINTH ANNUAL INTERNATIONAL ACM SIGIR CONFERENCE ON RESEARCH AND DEVELOPMENT IN INFORMATION RETRIEVAL ACM NEW YORK, NY, USA; [ANNUAL INTERNATIONAL ACM-SIGIR CONFERENCE ON RESEARCH AND DEVELOPMENT IN INFORMATION RETRIEVAL],, [Online] 6 August 2006 (2006-08-06), pages 364-371, XP002588294, ISBN: 978-1-59593-369-0 Retrieved from the Internet: URL:http://portal.acm.org/citation.cfm?id=1148234> [retrieved on 2010-06-22] abstract line 19 - page 365, left-hand column, last line; figure 1</p>	<p>1-12,15, 17-19, 21,29</p>
X	<p>----- GUOLIANG LI, SHENGYUE JI, CHEN LI, JIANHUA FENG: "Efficient type-ahead search on relational data: a TASTIER approach", PROC. OF THE 35TH SIGMOD INTERNATIONAL CONFERENCE ON MANAGEMENT OF DATA, PROVIDENCE, RHODE ISLAND, USA, [Online] 29 June 2009 (2009-06-29), - 2 July 2009 (2009-07-02), pages 695-706, XP002613380, ISBN: 978-1-60558-551-2 Retrieved from the Internet: URL:http://dbgroup.cs.tsinghua.edu.cn/lig1/papers/sigmod09-tastier-db.pdf> [retrieved on 2010-12-06] abstract page 696, left-hand column, line 35 - right-hand column, line 2 page 701, right-hand column, line 20 - page 703, right-hand column, line 12</p>	<p>1-12,15, 17-19, 21,29</p>
X	<p>----- US 2007/162481 A1 (MILLETT RONALD P [US]) 12 July 2007 (2007-07-12) paragraphs [0017] - [0018], [0021], [0025] - [0028], [0049] - [0055], [0065], [0100] - [0110] ----- -/--</p>	<p>1,2, 13-15, 17-19,21</p>

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2010/047409

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p> DATABASE INSPEC [Online] THE INSTITUTION OF ELECTRICAL ENGINEERS, STEVENAGE, GB; 2007, WHITE R W ET AL: "Studying the use of popular destinations to enhance web search interaction", XP002613381, Database accession no. 10170698 abstract & WHITE R W ET AL: "Studying the use of popular destinations to enhance web search interaction", 30TH ANNUAL INTERNATIONAL ACM SIGIR CONFERENCE ON RESEARCH AND DEVELOPMENT IN INFORMATION RETRIEVAL 23-26 JULY 2007 AMSTERDAM, NETHERLANDS, 23 July 2007 (2007-07-23), - 27 July 2007 (2007-07-27), pages 159-166, 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval ACM New York, NY, USA ISBN: 978-1-59593-597-7 Retrieved from the Internet: URL:http://research.microsoft.com/en-us/um/ /people/mbilenko/papers/07-sigir.pdf [retrieved on 2010-12-06] ----- </p>	<p> 1-12,15, 17,18, 21,29 </p>

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/047409

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 additional 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 an 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.:

1-15, 17-30

- 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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12, 15, 17, 18, 21, 29

FRAMEWORK FOR SELECTING AND PRESENTING ANSWER BOXES RELEVANT TO USER INPUT AS QUERY SUGGESTIONS, SAID QUERY SUGGESTIONS HAVING A POPULARITY VALUE THAT EXCEEDS A THRESHOLD

2. claims: 13, 14

FRAMEWORK FOR SELECTING AND PRESENTING ANSWER BOXES RELEVANT TO USER INPUT AS QUERY SUGGESTIONS, INCLUDING DETERMINING THAT THE FIRST INPUT IS MISSING INFORMATION NEEDED TO TRIGGER AN ANSWER BOX

3. claim: 16

FRAMEWORK FOR SELECTING AND PRESENTING ANSWER BOXES RELEVANT TO USER INPUT AS QUERY SUGGESTIONS, INCLUDING SELECTS A QUERY SUGGESTION BY POSITIONING A CURSOR OVER A SELECTED QUERY SUGGESTION

4. claims: 19, 20

FRAMEWORK FOR SELECTING AND PRESENTING ANSWER BOXES RELEVANT TO USER INPUT AS QUERY SUGGESTIONS, SAID ANSWER BOXES BEING DYNAMIC OR STATIC

5. claims: 22-28, 30

FRAMEWORK FOR SELECTING AND PRESENTING ANSWER BOXES RELEVANT TO USER INPUT AS QUERY SUGGESTIONS, INCLUDING ASSOCIATING PRESENTATION VALUES WITH INPUT-ANSWER BOX PAIRS

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2010/047409

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005283468 A1	22-12-2005	US 2011047120 A1	24-02-2011
US 2006248078 A1	02-11-2006	NONE	
US 2007162481 A1	12-07-2007	US 2009019038 A1	15-01-2009
		WO 2007082212 A2	19-07-2007