CERTIFICATE OF EFS FILING

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS on the below date:

Date: October 11, 2011 Name: John G. Rauch Signature: /John G. Rauch/

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of: Deepa Joshi

For: METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

Attorney Docket No.: 12729-796 (Y01651US03)

UTILITY PATENT APPLICATION TRANSMITTAL

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

1. TRANSMITTED HEREWITH: New application under 37 CFR §1.53(b), which is a:
   - ☒ Continuation,
   - ☐ Divisional, or
   - ☐ Continuation-in-Part (CIP)

   Under 37 CFR §1.53(b) of prior application no. 12/765,676.

   Prior application information: Examiner: Thai, Hanh B. Art Unit: 2163

   - ☐ Maintenance of copendency of prior application: A request for extension of time and the appropriate fee have been filed in the pending prior application (or are being filed in the prior application concurrently herewith) to extend the period for response until ____.
   - ☐ Certified copy of priority document(s) has been filed in prior application no. ____.

   For Continuation or Divisional Applications only: The entire disclosure of the prior application, from which an oath or declaration is supplied as indicated below, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference.

2. ATTACHMENTS: The following application elements and other papers are attached:
   - ☒ Application Data Sheet. See 37 CFR § 1.76.
   - ☒ Title page
   - ☒ Specification, including claims and Abstract (13 pages)
   - ☒ Drawings (7 sheet(s))
   - ☐ Appendices: _____
   - ☒ Declaration or ☐ Combined Declaration and Power of Attorney (2 pages):
     - ☐ newly-executed (original or copy)
     - ☒ copy from a prior application (37 CFR §1.63(d))
     - ☐ This application is filed by fewer than all the inventors named in the prior application, 37 CFR §1.53(d)(4). Please DELETE the following inventors(s) named in prior nonprovisional application no. ____: _____
   - ☐ English Translation Document:
     - ☐ is attached or ☐ has been filed in prior application no. _____.
   - ☐ Preliminary Amendment (Note: Related application data required under 37 CFR §1.78, if any, appears in the Amendments to the Specification section of the Preliminary Amendment, including incorporations by reference.)
   - ☐ Petition to Suspend Prosecution for the Time Necessary to File an Amendment (New Application Filed Concurrently).
   - ☒ Information Disclosure Statement, including Form PTO-1449 (1 sheets) and copies of references cited, if required.

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IPR2023-00887

☒ Assignment to: Yahoo! Inc.:

☐ with accompanying Assignment Recordation Cover Sheet, is attached.

☒ was previously recorded on August 10, 2006 at Reel 018162, Frame 0139.

☒ Power of Attorney (1 pages; ☐ by inventor ☒ by Yahoo! Inc.).

☐ The power appears in the original papers in the prior application.

☐ The power doesn't appear in the original papers in the prior application, but was filed on ___.__

☒ A new power has been executed and is attached.☐ The power of attorney in the prior application is to: _____ (Reg. No. ____).

☐ Nonpublication Request under 35 USC §122(b)(2)(B)(i).

☒ Other: Statement Under 37 CFR 3.73(b).

3. SMALL ENTITY STATUS:

☐ Applicant is small entity (per 37 CFR §1.27).

☐ A small entity statement was filed in prior application no. _____ and such status is still proper and desired.

☐ Small entity status is no longer desired.

4. FEE CALCULATION (AFTER ENTRY OF ANY PRELIMINARY AMENDMENT(S) IN ITEM #2 ABOVE):

Claims as Filed	Col. 1	Col. 2		Small Entity			Not a Small Entity	
For	No. Filed	No. Extra		Rate	Fee	or	Rate	Fee
Basic Fee					$ 190	or		$ 380
Total Claims	18-20	0		x$ 30=	$	or	0x$60=	$0
Independent Claims	3-3	3		x$ 125=	$	or	0x$250=	$0
Multiple Dependent Claims Present				+$225=	$	or	+$450=	$0
Utility Application Size Fee when filing via EFS (see MPEP 607 Filing Fee)				x $155=	$	or	x $310=	$0
Search Fee				+$310=	$	or	+$620=	$620
Examination Fee				+$125=	$	or	+$250=	$250
*If the difference in col. 1 is less than zero, enter "0" in col. 2.				Total	$	or	Total	$1250

5. FEE PAYMENT:

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ Please charge Deposit Account No. 23-1925 in the amount of $1250.

☒ The Director is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 23-1925.

☒ Any additional filing fees required under 37 CFR § 1.16.

☒ Any patent application processing fees under 37 CFR §1.17.

☐ The Director is hereby authorized to charge payment of the following fees during the pendency of this application or credit any overpayment to Deposit Account No. 23-1925.

☐ Any filing fees under 37 CFR § 1.16 for presentation of extra claims.

☐ Any patent application processing fees under 37 CFR § 1.17.

☐ The issue fee set in 37 CFR § 1.18 at or before mailing of the Notice of Allowance, pursuant to 37 CFR § 1.311(b).

6. CORRESPONDENCE ADDRESS: Please recognize the correspondence address for this application as the address associated with the following Customer Number:

Customer No.:

56020 - Yahoo/Overture

7. PLEASE DIRECT all telephonic communications to: John G. Rauch (tel: (312) 321-4200).

Respectfully submitted,

October 11, 2011
Date

/John G. Rauch/
John G. Rauch (Reg. No. 37,218)

American Airlines/Hilton, Ex. 1002, p.2
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IPR2023-00887

ABSTRACT OF THE DISCLOSURE

Methods and systems for reconstructing a full query based on a partial query are disclosed. Existing interfaces for search engines may be rigid and require users to submit full queries to perform searched. The methods and systems described herein may solve these problems by allowing a flexible way for users to submit a partial query and reconstruct a full query based on the partial query. A search may then be performed using the reconstructed query.

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PTO/SB/14 (11-08)
Approved for use through 01/31/2014. 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	12729-796 (Y01651US03)
	Application Number	
Title of Invention	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY	

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
	Deepa		Joshi	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Santa Clara	State/Province	CA	Country of Residence	US

Citizenship under 37 CFR 1.41(b) IN

Mailing Address of Applicant:

Address 1	900 Pepper Tree Lane #1413		
Address 2			
City	Santa Clara	State/Province	CA
Postal Code	95051	Country	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	56020		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY		
Attorney Docket Number	12729-796 (Y01651US03)	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)	7	Suggested Figure for Publication (if any)	

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IPR2023-00887

PTO/SB/14 (11-08)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	12729-796 (Y01651US03)
	Application Number	
Title of Invention	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY	

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 and will not** be the subject of an application filed in another country, or under a multilateral international 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	○ Limited Recognition (37 CFR 11.9)
Customer Number	56020		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. 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	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation of	12765676	2010-04-22

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
	Continuation of	11502202	2006-08-10	7716201	2010-05-11

Additional Domestic Benefit/National Stage 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[1]	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.

American Airlines/Hilton, Ex. 1002, p.5
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

PTO/SB/14 (11-08)
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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	12729-796 (Y01651US03)
	Application Number	
Title of Invention	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY	

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. ☒

Organization Name	Yahoo! Inc.		
Mailing Address Information:			
Address 1	701 First Avenue		
Address 2			
City	Sunnyvale	**State/Province**	CA
Country	US	Postal Code	94089
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	/John G. Rauch/			Date (YYYY-MM-DD)	2011-10-11
First Name	John	Last Name	Rauch	Registration Number	37218

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.**

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IPR2023-00887

CLAIMS

1. A computer database system for providing search results to a user in response to user submissions over a data network, the computer database system comprising:

a database configured to store information about events in the computer database system; and

a query reconstruction server in data communication with the database and operative to receive a partial query submitted at a remote user client system by a user seeking search results matching the submitted partial query and, in response to the received partial query, determine a full query based on

(i) the received partial query, and

(ii) information stored in the database about queries previously-submitted by users,

wherein the submitted partial query comprises an abbreviated or incomplete search query which is not fully representative of an entire search query desired by the user and the full query is better representative of the entire search query desired by the user.

2. The computer database system of claim 1 wherein the query reconstruction server is further operative to determine as the full query the most frequently submitted, previously-submitted query that matches partial words of the partial query.

3. The computer database system of claim 2 further comprising:

a web server operative to receive search results produced by a search engine and deliver web pages that include the received search results to a browser of the user.

4. The computer database system of claim 1 further comprising:

a query data management server in data communication with the query reconstruction server and the database, the query data management server being operative to provide to the query reconstruction server the information stored in the database about queries previously-submitted by users.

5. The computer database system of claim 4 wherein the query data management server is further configured to:

retrieve from the database historical query data relating to a plurality of previously submitted search queries;

build a query index based on the historical query data;

store the query index in the database; and

provide the query index to the query reconstruction server.

6. The computer database system of claim 4 wherein the query data management server is further configured to:

retrieve from the database information about queries previously submitted to the computer database system;

filter the retrieved information about the queries; and

construct one or more indexes from the filtered query information,

the query data management server providing the constructed indexes to the query reconstruction server for use as the information stored in the database about queries previously-submitted by users when the query reconstruction server determines the full query.

7. The computer database system of claim 6 wherein the query data management server is configured to select, as the filtered query information, most popular queries from the retrieved information about queries previously submitted.

8. A computer implemented method for a computer database system, the method comprising:

storing in memory data about previously received queries at the computer database system;

at a server, retrieving selected data from the memory including query data representative of previously submitted queries and information based on frequency counts for the respective previously submitted queries;

at the server, constructing indexes using the retrieved selected data;

receiving at the server a partial query submitted by a user at a remote user client system, the submitted partial query including an abbreviated or incomplete

search query which is not fully representative of an entire search query desired by the user; and

at the server, using the indexes to determine a full query corresponding to the submitted partial query, the full query being better representative of the entire search query desired by the user.

9. The method of claim 8 further comprising communicating the full query from the server to a search engine for subsequent processing of the full query.

10. The method of claim 8 further comprising:

submitting the full query from the server to a search engine;

receiving search results at the server from the search engine; and

communicating a web page including at least some of the search results from the server to the user.

11. The method of claim 10 further comprising:

at the server, using the indexes to determine one or more alternative queries that match the submitted partial query,

and wherein communicating the web page comprises communicating a web page including at least some of the one or more alternative queries.

12. The method of claim 8 wherein receiving the partial query comprises interpreting the submitted partial query as a series of words separated by delimiters.

13. The method of claim 12 further comprising:

at the server, interpreting each word of the received partial query as a partial word of the entire search query desired by the user; and

using the indexes, determining a full query that matches the partial words specified in the partial query.

14. The method of claim 13 wherein determining a full query comprises determining the full query that is the most frequently submitted known query, as defined by the indexes, that matches the partial words of the received partial query in the same order.

15. A computer implemented method for a computer database system, the method comprising:

storing in memory data about previously received queries at the computer database system, the stored data including respective received queries and respective weight values determined based on receipt frequency of the respective received queries;

receiving at a server of the computer database system a partial query submitted by a user at a remote user client system, the submitted partial query including an abbreviated or incomplete search query which is not fully representative of an entire search query desired by the user;

at the server, interpreting each word of the received partial query as a partial word of the entire search query desired by the user; and

at the server, identifying in the memory previously received queries that match the partial words specified in the partial query;

at the server, selecting as a full query a matching query which is most popular based on the weight values, the full query being better representative of the entire search query desired by the user.

16. The method of claim 15 further comprising:

submitting the full query from the server to a search engine;

receiving search results at the server from the search engine; and

communicating a web page including at least some of the search results from the server to the user.

17. The method of claim 16 further comprising:

at the server, based on the weights, determining one or more alternative queries that match the submitted partial query,

and wherein communicating the web page comprises communicating a web page including at least some of the one or more alternative queries.

18. The method of claim 17 wherein communicating the web page comprises communicating a web page with one or more hyperlinks corresponding to the one or more alternative queries, the hyperlinks being selectable by the user viewing the web page to select on of the one or more alternative queries.

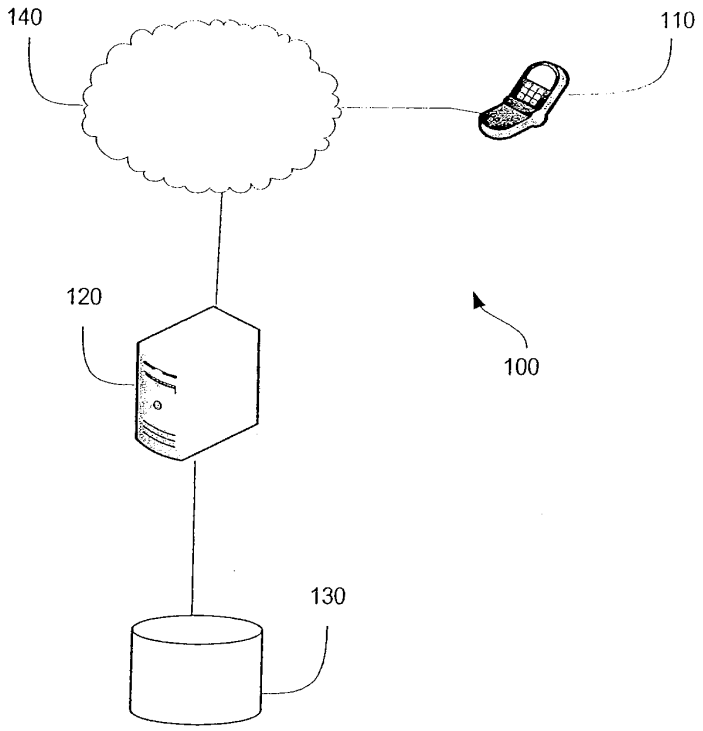
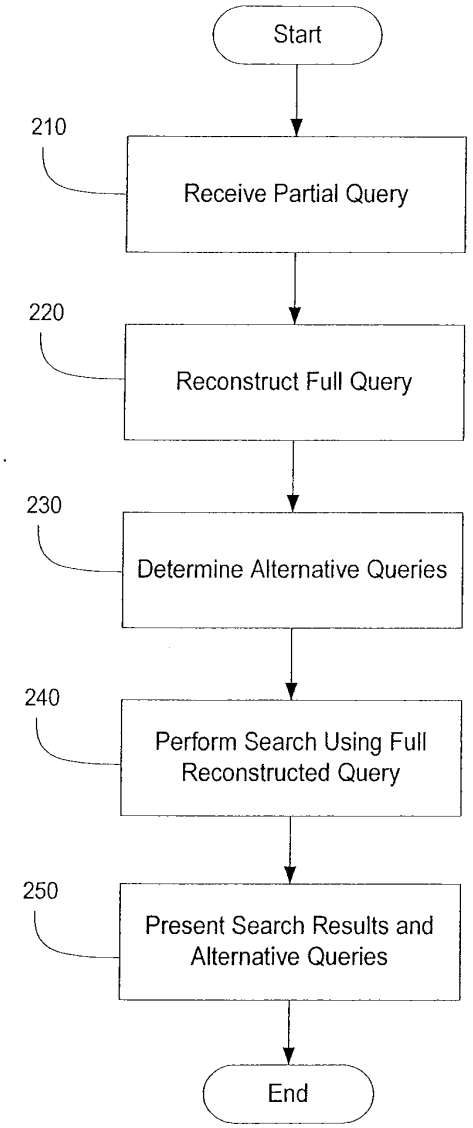


Figure 1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220
Reconstruct Full Query
230
Determine Alternative Queries
240
Perform Search Using Full Reconstructed Query
250
Present Search Results and Alternative Queries
End

Figure 2

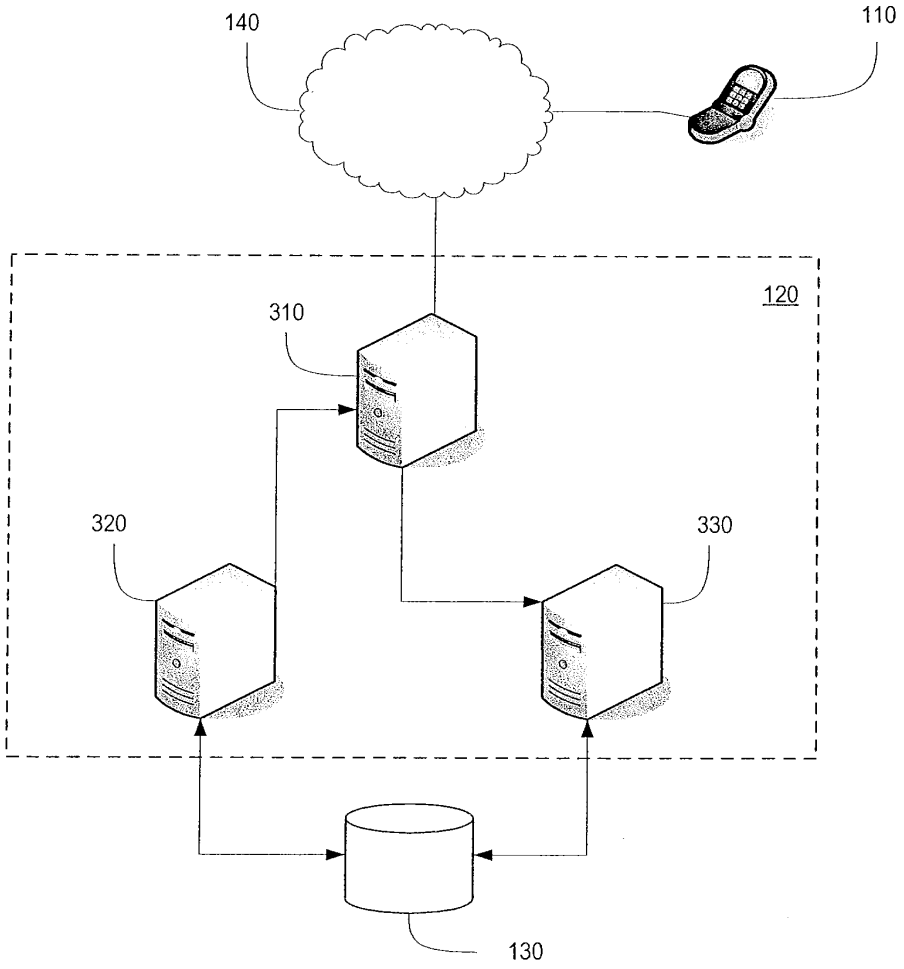
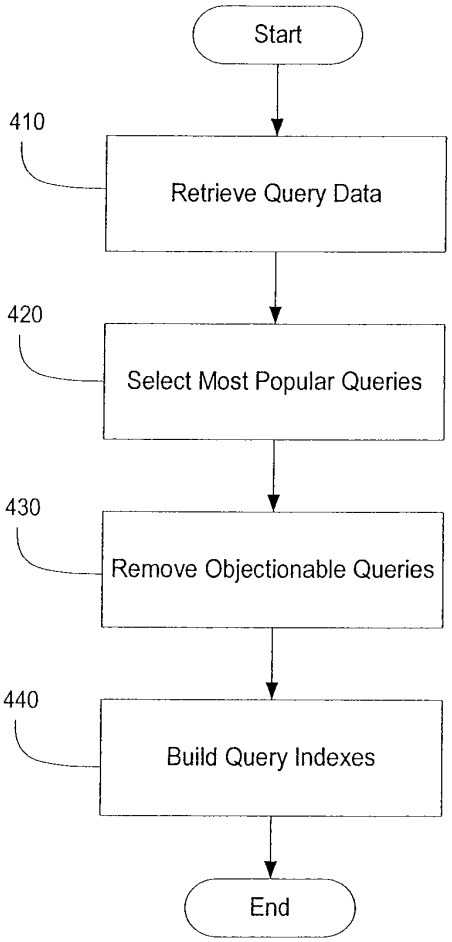


Figure 3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Retrieve Query Data
420
Select Most Popular Queries
430
Remove Objectionable Queries
440
Build Query Indexes
End

Figure 4

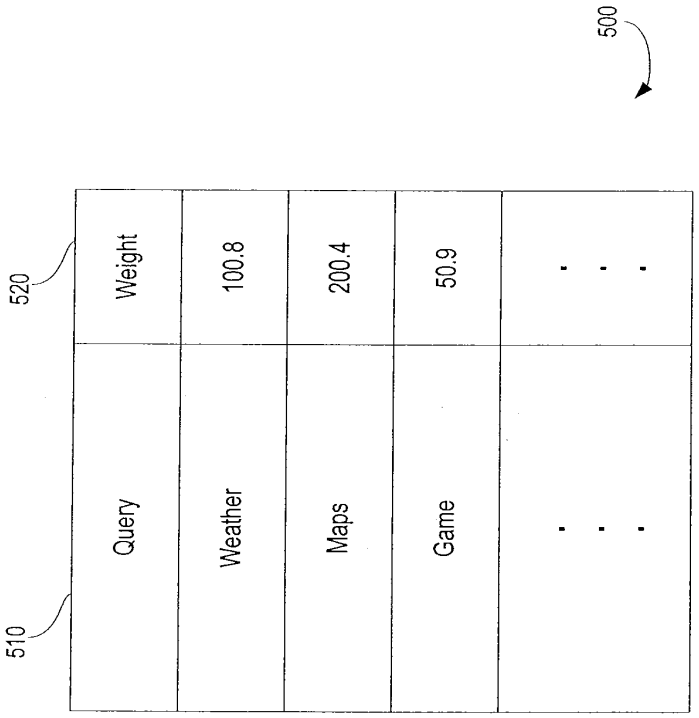
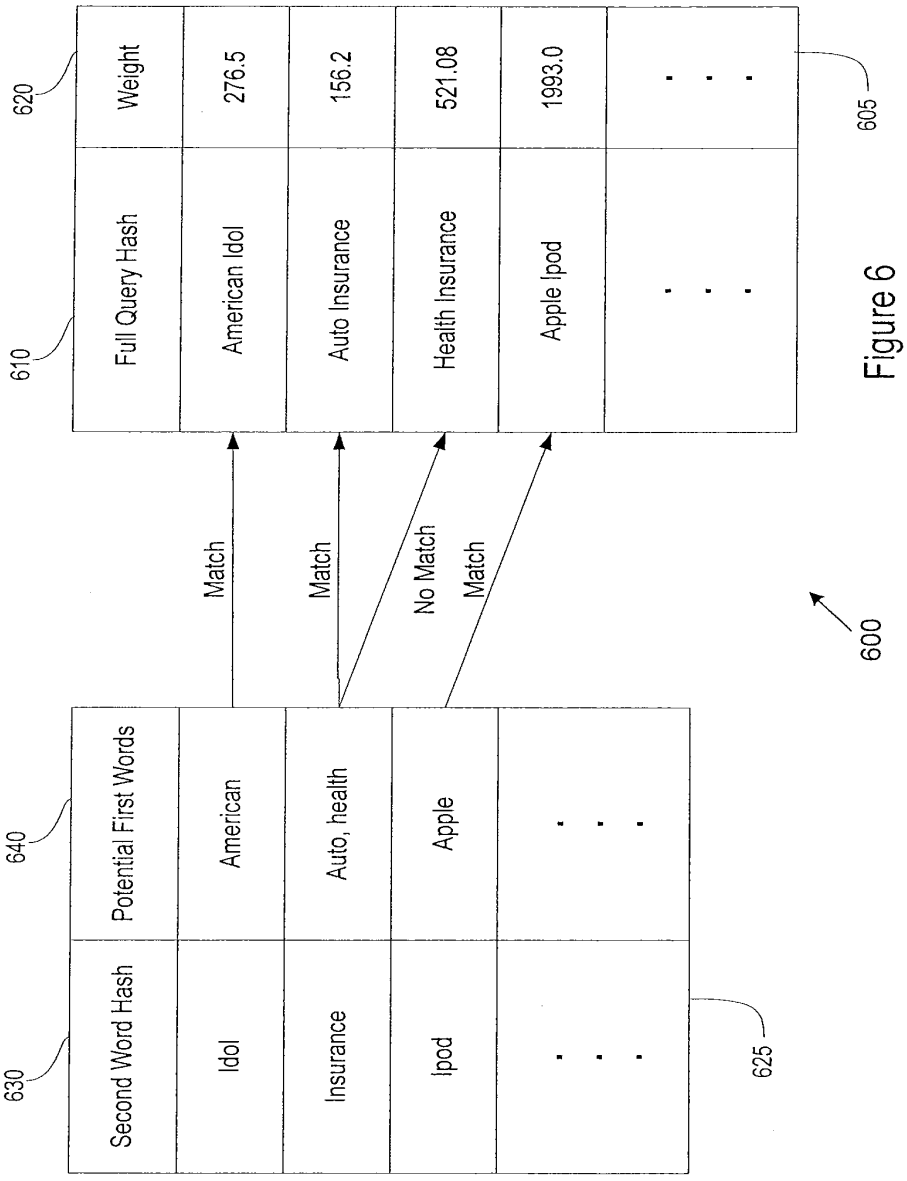


Figure 5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Health Insurance
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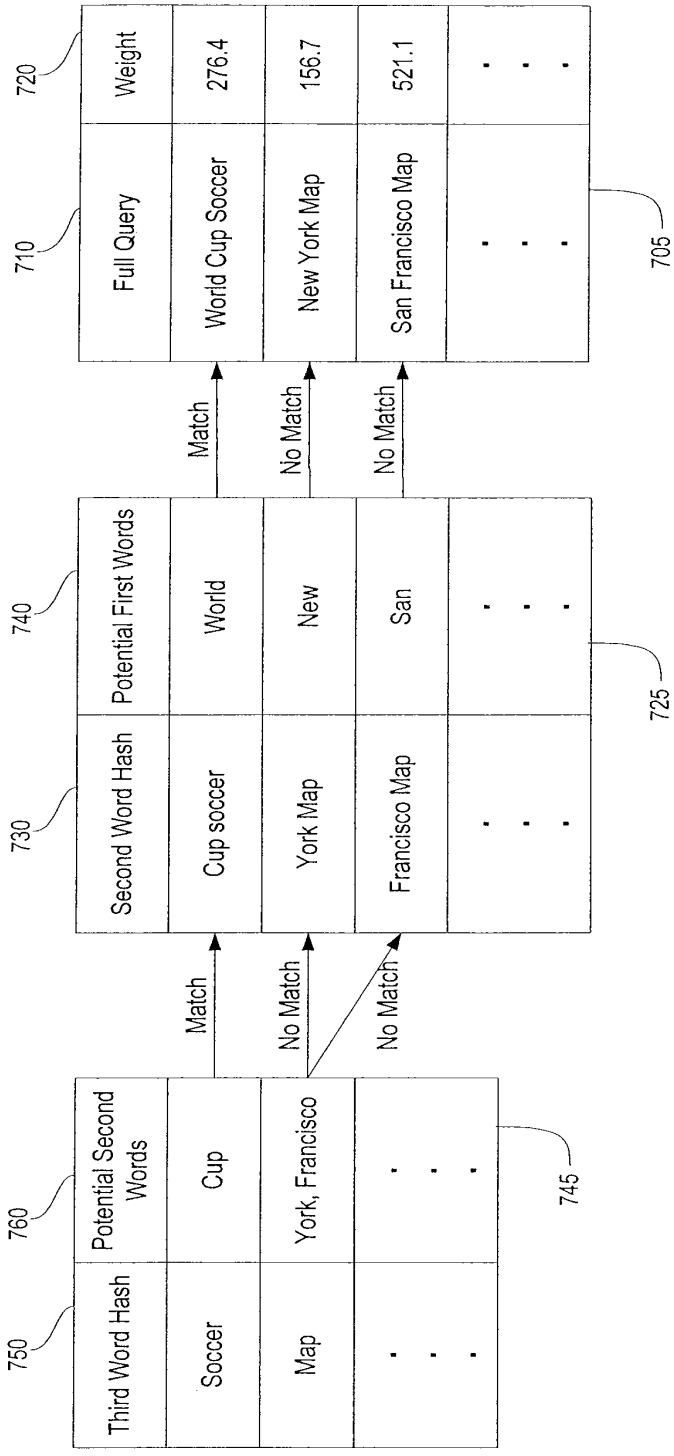
Idol
Insurance
Ipod
625

Figure 6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156.7
521.1
710
Full Query
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New York Map
San Francisco Map
705
Match
No Match
No Match
740
Potential First Words
World
New
San
730
Second Word Hash
Cup soccer
York Map
Francisco Map
725
Match
No Match
No Match
760
Potential Second Words
Cup
York, Francisco
750
Third Word Hash
Soccer
Map
745
700

Figure 7

CERTIFICATE OF EFS FILING

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS on the below date:

Date: October 11, 2011 Name: John G. Rauch Signature: /John G. Rauch/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Deepa Joshi	
Appln. No.:	n/a	Examiner: n/a
Filed:	October 11, 2011	Art Unit: n/a
For:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY	Confirmation No.: n/a
Attorney Docket No:	12729-796 (Y01651US03)	

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

This application claims priority under 35 USC §120 to the following United States patent applications: 12/765,676 and 11/502,202. In accordance with 37 CFR §1.98(d), copies of the references cited herein which were submitted to, or cited by, the office, in compliance with 37 CFR §1.98(a)-(c) in the earlier application are not provided herewith. The Examiner is directed to those references cited in all Information Disclosure Statements filed in the priority United States patent applications cited above in addition to the references cited herein.

BRINKS HOFER GILSON &LIONE

In accordance with the duty of disclosure under 37 CFR §1.56 and §§1.97-1.98, and more particularly in accordance with 37 CFR §1.97(b), Applicant hereby cites the following reference(s):

U.S. PATENT DOCUMENTS		
DOCUMENT NO.	**DATE**	**NAME**
5,765,147	06/09/1998	Mattos, et al.
6, 112, 172	08/2000	True, et al.
6,134,540	10/17/2000	Carey, et al.
6,269,361	07/31/2001	Davis, et al.
US 2002/0123994 A1	9/2002	Schabes, et al.
US 2003/0084027 A1	05/2003	Brandin, et al.
US 2004/0254928 A1	12/2004	Vronay, et al.
6,876,997	04/05/2005	Rorex, et al.
US 2005/0222975 A1	10/2005	Nayak, et al.
US 2005/0283468 A1	12/2005	Kamvar, et al.
US-2006/01 06769 A1	05/2006	Gibbs
US 2006/0206454 A1	09/2006	Forstall, et al.
7,149,732	12/12/2006	Wen
US 2006/0282404	12/2006	Chaudhuri, et al.
7,181,446	02/20/2007	Bossman, et al.
7,188,098	03/06/2007	Chen, et al.
US 2007/0050351 A1	03/2007	Kasperski, et al.
US 2007/0061317 A1	03/2007	Ramer, et al.
7,330,848	02/12/2008	Chaudhuri, et al.
US 2008/0040323 A1	02/14/2008	Joshi
7,337,163	02/26/2008	Srinivasan, et al.
US 2008/0114743 A1	05/2008	Venkataraman, et al.

FOREIGN PATENT DOCUMENTS		
DOCUMENT NO.	**DATE**	**COUNTRY**
WO 97/038376 A2	10/16/1997	WIPO

OTHER ART – NON PATENT LITERATURE DOCUMENTS
H. Itoh, NTCIR-4 Patent Retrieval Experiments at RICOH, Working Notes of NTCIR-4, NII Test Collection for IR Systems Workshop 4, June 2-4, 2004, 4 pages.

Applicant is enclosing Form PTO-1449 (one sheet), along with a copy of each listed reference for which a copy is required under 37 CFR §1.98(a)(2). As each of the listed references is in English, no further commentary is believed to be necessary, 37

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C.F.R §1.98(a)(3). Applicant respectfully requests the Examiner's consideration of the above reference(s) and entry thereof into the record of this application.

By submitting this Statement, Applicant is attempting to fully comply with the duty of candor and good faith mandated by 37 CFR §1.56. As such, this Statement is not intended to constitute an admission that any of the enclosed references, or other information referred to therein, constitutes "prior art" or is otherwise "material to patentability," as that phrase is defined in 37 CFR §1.56(a).

The Applicant or Applicants have calculated no fee to be due in connection with the filing of this Information Disclosure Statement. However, the Director is authorized to charge any fee deficiency associated with the filing of this Information Disclosure Statement to a deposit account, as authorized in the Transmittal accompanying this Information Disclosure Statement.

Respectfully submitted,

October 11, 2011
Date

/John G. Rauch/
John G. Rauch
(Reg. No. 37,218)

American Airlines/Hilton, Ex. 1002, p.20
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

FORM PTO-1449		SERIAL NO. n/a	CASE NO. 12729-796 (Y01651US03)
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		FILING DATE October 11,2011	GROUP ART UNIT n/a
(use several sheets if necessary)	APPLICANT(S): Deepa Joshi		CONFIRMATION NO. n/a

REFERENCE DESIGNATION **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	A1	5,765,147	06/09/1998	Mattos, et al.	707/4	11/21/1996
	A2	6, 112, 172	08/2000	True, et al.	704/235	
	A3	6,134,540	10/17/2000	Carey, et al.	707/2	
	A4	6,269,361	07/31/2001	Davis, et al.	707/3	
	A5	US 2002/0123994 A1	9/2002	Schabes, et al.	707/5	
	A6	US 2003/0084027 A1	05/2003	Brandin, et al.	707/3	
	A7	US 2004/0254928 A1	12/2004	Vronay, et al.	707/005	
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	A9	US 2005/0222975 A1	10/2005	Nayak, et al.	707/003	
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	A15	7,181,446	02/20/2007	Bossman, et al.	707/3	01/23/2004
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	A21	7,337,163	02/26/2008	Srinivasan, et al.	707/3	12/04/2003
	A22	US 2008/0114743 A1	05/2008	Venkataraman, et al.	707/003	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES OR NO
	A23	WO 97/038376 A2	10/16/1997	WIPO	G06F 17/30	No

EXAMINER INITIAL		OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published.
	A24	H. Itoh, NTCIR-4 Patent Retrieval Experiments at RICOH, Working Notes of NTCIR-4, NII Test Collection for IR Systems Workshop 4, June 2-4, 2004, 4 pages.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; 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:	11163412
Application Number:	13270933
International Application Number:	
Confirmation Number:	8111
Title of Invention:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY
First Named Inventor/Applicant Name:	Deepa Joshi
Customer Number:	56020
Filer:	John G. Rauch/Nkosi Harvey
Filer Authorized By:	John G. Rauch
Attorney Docket Number:	12729-796 (Y01651US03)
Receipt Date:	11-OCT-2011
Filing Date:	
Time Stamp:	17:54:01
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1250
RAM confirmation Number	5048
Deposit Account	231925
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 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees) Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees) 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	Miscellaneous Incoming Letter	12729796TRANSMITTAL101111.pdf	108361 ee325a4235ee857be0391487f7aa2c834caf93d6	no	2
Warnings:					
Information:					
2	Application Data Sheet	12729796ADS101111.pdf	166225 cc7e30a20230aad26c35f9efe5413e1bf7f69034	no	3
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
3		12729796APPLICATION101111.pdf	645988 0637b925f473ba19e0df35547934025df772a1ae	yes	14
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	9	
	Claims		10	13	
	Abstract		14	14	
Warnings:					
Information:					
4	Drawings-only black and white line drawings	12729796DRAWINGS101111.pdf	86505 a87df0e0981aa2b9bc44fb1adeef0de2ee064ebe	no	7
Warnings:					
Information:					
5	Oath or Declaration filed	12729796DECLNFROMPRIOR101111.pdf	96846 424fd8359a04d7ada46bd4dae4d124ed5d5dd653	no	2
Warnings:					
Information:					
6	Power of Attorney	12729687POWER101111.pdf	75636 98f71c315df02f0a076ff9b62db76088b02408cf	no	1

Warnings:					
Information:					
7	Assignee showing of ownership per 37 CFR 3.73(b).	12729796STATEUNDER373.pdf	134558 1449a951e4086d2ef09c7b889e3cfec64c886df1	no	3
Warnings:					
Information:					
8	Transmittal Letter	12729796IDS101111.pdf	103909 7680ed0394b012443619f8fb5f70bd76cbd3c5f2	no	3
Warnings:					
Information:					
9	Information Disclosure Statement (IDS) Form (SB08)	12729796PTO1449FORM101111.pdf	72070 6918d2a5d2cac9c814f5d6cc414db69acf5bf61f	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
10	Fee Worksheet (SB06)	fee-info.pdf	33399 f910594075f229219476556f48ea52c0dcb541eb	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1523497		

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.

<u>New Applications Under 35 U.S.C. 111</u>
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.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
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.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
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.

Attorney Docket No. 12729/180

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 C.F.R. §1.63)

As a below named inventor, I hereby declare:

My residence, mailing address, and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor or an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled:

METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

the specification of which (check one)

☒ is attached hereto.

☐ was filed on _____ as United States Application No. _____ and was amended on _____ (if applicable).

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 my duty to disclose to the United States Patent and Trademark Office all information that I know to be material to the patentability of this application as defined in 37 C.F.R. §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 foreign priority benefits under 35 U.S.C. §119(a)-(d) or (f), or §365(b) of any foreign application(s) for patent or inventor's or plant breeder's rights certificate(s), or §365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's or plant breeder's rights certificate(s) or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):			Priority Not Claimed
_____ (Number)	_____ (Country)	_____ (Filing Date, MM/DD/YYYY)	☐
_____ (Number)	_____ (Country)	_____ (Filing Date, MM/DD/YYYY)	☐

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

_____ (Application Serial No.)	_____ (Filing Date, MM/DD/YYYY)	_____ (Status: pending, or abandoned)
_____ (Application Serial No.)	_____ (Filing Date, MM/DD/YYYY)	_____ (Status: pending, or abandoned)

I hereby claim the benefit under 35 U.S.C. §120 of any United States applications(s), or §365(c) of any PCT International Application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

(Application Serial No.)	(Filing Date, MM/DD/YYYY)	(Status: patented, pending, abandoned)
(Application Serial No.)	(Filing Date, MM/DD/YYYY)	(Status: patented, pending, abandoned)
(Application Serial No.)	(Filing Date, MM/DD/YYYY)	(Status: patented, pending, abandoned)

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 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Customer No. 56020 YAHOO / OVERTURE

PLEASE RECOGNIZE or change the CORRESPONDENCE ADDRESS for this application to the address associated with the above Customer Number:

PLEASE DIRECT all telephonic and facsimile communications to:

Vincent J. Gnoffo (Reg. No. 44,714)

Tel: (312) 321-4200; Fax: (312) 321-4299

Full name of sole or first inventor Deepa Joshi	
Sole or first inventor's signature Deepa Joshi.	Date 08/10/2006
Residence (City, State/Foreign Country) Santa Clara, CA	
Citizenship Indian	
Mailing Address 900 Pepper Tree Lane #1413, Santa Clara, CA, 95051	

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PTO/SB/80 (11-08)
Approved for use through 11/30/2011. OMB 0651-0035
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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.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:

☑ Practitioners associated with the Customer Number: 56020 YAHOO! /OVERTURE

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:

☑ The address associated with Customer Number: 56020 YAHOO! /OVERTURE

OR

☐ Firm or Individual Name			
Address			
City		State	Zip
Country			
Telephone		Email	

Assignee Name and Address:

YAHOO! INC.
701 First Avenue
Sunnyvale, California 94089

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	/Romualdas Strimaitis/	Date 2/9/10
Name	Romualdas Strimaitis	Telephone (650) 336-3900
Title	Vice President and Associate General Counsel, Yahoo! Inc.	

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. 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 1.11 and 1.14. This collection is estimated to take 3 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.

Attorney Docket No. 12729-796 (Y01651US03)

STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Deepa Joshi

Application/Patent No.: n/a Filed/Issue Date: Filed October 11, 2011

Title: METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

Yahoo! Inc. (Name of Assignee) a corporation (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1 ☒ the assignee of the entire right, title, and interest; or

2. ☐ an assignee of less than the entire right, title and interest (The extent (by percentage) of its ownership interest is _____ %); or

3. ☐ the assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made) in the patent application/patent identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the U.S. Patent and Trademark Office at Reel 01862, Frame 0139, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows::

1. From: _____ To: _____
The document was recorded in the U.S. Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____
The document was recorded in the U.S. Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____
The document was recorded in the U.S. Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☒ As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant **to 37 CFR 3.11.**

[NOTE: A separate copy (i.e., a true copy of the original assignment documents(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/John G. Rauch/	October 11, 2011
Signature	Date
John G. Rauch	312 321 4200
Printed or Typed Name	Telephone Number
Attorney for Applicant	
Title	

Case No. 12729-180

ASSIGNMENT

WHEREAS, Deepa Joshi, hereinafter called the "Assignor", has made the invention described in the United States patent application entitled METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY, executed by the Assignor on the same date as, or on a date prior to, this Assignment;

WHEREAS, Yahoo! Inc., a corporation organized and existing under the laws of the State of Delaware, having a place of business at 701 First Avenue, Sunnyvale, California 94089, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patents which may be obtained for said invention, as set forth below;

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00), and other valuable and legally sufficient consideration, the receipt of which by the Assignor from the Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignors hereby covenant and agree, for both the Assignors and the Assignor's legal representatives, that the Assignors will assist the Assignee in the prosecution of the patent application identified above; in the making and prosecution of any other patent applications that the Assignee may elect to make covering the invention identified above; in vesting in the Assignee like exclusive title in and to all such other patent applications and patents; and in the prosecution of any interference which may arise involving said invention, or any such patent application or patent; and that the Assignors will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Assignment.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this agreement.

DATED: 08/10/2006 Deepa Joshi.

Deepa Joshi

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American Airlines/Hilton, Ex. 1002, p.30
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: October 11, 2011 Name: John G. Rauch Signature: /John G. Rauch/

Our Case No. 12729-796 (Y01651US03)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR UNITED STATES LETTERS PATENT

INVENTORS:	Deepa Joshi
TITLE:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY
ATTORNEY:	John G. Rauch (Reg. No. 37,218) BRINKS HOFER GILSON & LIONE POST OFFICE BOX 10395 CHICAGO, ILLINOIS 60610 (312) 321-4200

METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

RELATED APPLICATIONS

[0001] The present patent document is a continuation of Patent Application serial number 12/765,676, filed April 22, 2010, issued as 8,046,347 on October 25, 2011, which is a continuation of Patent Application Serial No. 11/502,202, filed August 10, 2006, now US patent number 7,716,201, both of which are hereby incorporated herein in their entirety by this reference.

BACKGROUND

[0002] 1. Technical Field

[0003] This application relates to search engines. In particular, this application relates to a flexible and intuitive system for reconstructing a search query based on a received partial query.

[0004] 2. Related Art

[0005] The transfer of information over computer networks, such as the Internet, has become an increasingly important means by which institutions, corporations, and individuals do business. Computer networks have grown over the years from independent and isolated entities established to serve the needs of a single group into vast internets which interconnect disparate physical networks and allow them to function as a coordinated system. Currently, the largest computer network in existence is the Internet. The Internet is a worldwide interconnection of computer networks that communicate using a common protocol. Millions of computers, from low end personal computers to high end supercomputers, are connected to the Internet.

[0006] The availability of powerful new tools that facilitate the development and distribution of Internet content (this includes information of any kind, in any form or format) has led to a proliferation of information, products, and services offered through the Internet and a dramatic growth in both the number and types of consumers using the Internet. To sift through this sea of information, users typically employ the use of search engines that allow users to submit queries and provide responsive information, such as a list of references, that meet criteria specified in the query.

[0007] Additionally, the number of devices capable of accessing the Internet has also dramatically increased. Today, user's may access the Internet using a wide variety of

devices, such as personal computers, cell phones, personal digital assistants, and the like which may utilize different networking technologies to connect to the Internet. The portability of the device and/or connection type has become an increasingly important concern for users. However, increased access costs and decreased input capabilities are often associated with portable Internet access. As a result, users are limited in their ability to access the full depth of the Internet. For example, users may not be able to take full advantage of a search engine on a mobile device, such as a cell phone, because the user is unable to enter a search query without substantial effort.

BRIEF SUMMARY

[0008] In one embodiment, a method for providing search results to a user is provided. The method may include receiving a first set of information indicative of a partial query, determining a full query based on the partial query, submitting the full query to a search engine, receiving results from the search engine, and presenting the results to the user.

[0009] In another embodiment, a method for determining a full query based on a partial query is provided. The method may include receiving a first set of information indicative of a partial query, comparing the partial query to an index of known search queries to determine matching known queries, determining a full query by selecting at least one of the matching known queries.

[0010] In another embodiment, a system for providing search results to a user is provided. The system may include a query reconstruction server operable to receive a first set of information indicative of a partial query, determining a full query based on the partial query, and submitting the full query to a search engine. The system may also include a web server operable to receiving results from the search engine and presenting the results to the user.

[0011] These and other embodiments and aspects are described with reference to the noted Figures and the below detailed description of the preferred embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 is a diagram of an exemplary architecture for providing search results;

[0013] FIG. 2 is a flow chart of an exemplary method for providing search results to a user based on a partial query;

[0014] FIG. 3 is another exemplary architecture including a search engine and query reconstruction server;

[0015] FIG. 4 is a flow chart of an exemplary method for building query indexes;

[0016] FIG. 5 is an exemplary query index;

[0017] FIG. 6 is another exemplary query index; and

[0018] FIG. 7 is another exemplary query index.

DETAILED DESCRIPTION OF THE PRESENTLY PREFERRED EMBODIMENTS

[0019] Referring now to the drawings, and initially to FIG. 1, an exemplary architecture for providing search results is shown. The architecture 100 may include a user client system 110, a search engine server 120, and a database 130. Although reference will now be made to specific components of the system performing specific features, it should be apparent that such reference is exemplary, is not intended to limit the scope of the claims in any way, and that the functionalities described herein may be implemented in a virtually unlimited number of configurations.

[0020] The user client system 110 may submit a search query to search engine 120 via the communications network 140. The communication network 140 may be any private or public communication network. The user client system 110 may connect to the search engine server 120 via the Internet using a standard browser application. A browser based implementation allows system features to be accessible regardless of the underlying platform of the user client system 110. For example, the user client system 110 may be a workstation computer, laptop computer, handheld computer, cell phone, mobile messaging device, or the like which may all utilize different hardware and/or software packages. Alternatively, or additionally, the user client system 110 may connect to the search engine server 120 using a stand-alone application which may be either platform dependent or platform independent. Other methods may be used to implement the user client system 110.

[0021] The search engine server 120 may receive a partial query from the user client system 110, reconstruct a full query and provide search results based on the reconstructed query. The search engine server 120 may also include a web server that delivers Web pages that may include the search results to browsers (and other files to applications) via the HTTP protocol. The search engine server 120 may include a database 130 for storing

the information to be searched. The database 130 may also include search query statistics such as an index of all submitted queries, the number of times a particular query was submitted, and the like. Moreover, although figuratively attached to search engine server 120, database 130 may, in practice, distribute user-specific data elements (such as user preferences) to the user client system 110.

[0022] FIG. 2 is a flow chart of an exemplary method for providing search results to a user based on a partial query. Initially, the user may submit a partial query which is received at 210. As used herein, the term "partial search query" or "partial query" means any abbreviated or incomplete search query such that the submitted query is not fully representative of the entire search query desired by the user. In other words, partial search queries are shorthand ways of expressing typical search queries. For example, a partial query "a i" may be used to represent the full search queries "American Idol™" or "auto insurance." It should be apparent that a full search query may be represented by a multitude of partial search queries. As an additional example, the full query "auto insurance" may be represented by the partial queries "a ins," "auto ins," "a insurance" and the like. The partial search query may include a regular expression, such as the partial query "w c s[oc].*", which may match the full queries "world cup soccer", "world cup schedule", "world cup scores", and the like.

[0023] Next, a full query is reconstructed from the partial query at 220. For example, the query "auto insurance" may be reconstructed from a partial query of "a i". In order to reconstruct the full query, the partial query may be interpreted in a particular manner. The system may interpret the partial query as a series of words separated by delimiters, such as a space character. For example, the partial query "a i" may be interpreted as a two word query. Each word of the partial query may be interpreted as a partial word of the full query, and the system may then determine a full query that matches the partial words specified in the partial query. The determined full query may be the most frequently submitted known query that matches the partial words of the partial query in the same order, or may be determined using any other criteria.

[0024] Optionally, alternative queries may also be determined at 230. Alternative queries may include any query that matches the partial query but is not selected as the reconstructed full query. For example, the partial query "b" may be reconstructed as the query "basketball" while the query "baseball" may be determined to be an alternative

query. The alternative queries may include any full queries that match the partial words of the partial query in a different order. The received partial query may also be designated as an alternative query.

[0025] Finally, a search may be performed using the reconstructed query at 240, and the results may be provided to the user at 250. Optionally, the alternative queries may also be provided to the user. For example, a list of hyperlinks may be provided that allow the user to submit a search using the alternative query. The list may also include the initially received partial query to allow the user to perform a search using the original partial query. The system may limit the number of alternative queries that are provided to the user, such as providing four or five alternative queries.

[0026] Another exemplary architecture for providing search results is shown in FIG. 3. The architecture 300 may include a user client system 110, a search engine server 120, and a database 130, similar to those described above in reference to FIG. 1. The search engine server 120 may include a query reconstruction server 310, a query data management server 320, and a search engine 330. The query reconstruction server 310 may reconstruct a full query from a partial query submitted via the client system 110. The reconstructed query may then be provided to the search engine 330. The query reconstruction server 310 may also determine alternative queries and cause the alternative queries to be provided to the user client system 110.

[0027] Query data management server 320 may analyze historic query data. For example, the query data management server 320 may retrieve historic query data, analyze or filter the data, and generate data structures for later use in reconstructing the query. In one implementation, the query management server 320 may create query indexes that are provided to the query reconstruction server 310 for use in reconstructing the query. Other data structures may also be used.

[0028] A flow chart of an exemplary method for building query indexes is shown in FIG. 4. Initially, query data may be retrieved from a database of query data. The query data may include previously submitted queries. For example, query data representative of previously submitted queries to the Yahoo! Search Engine may be retrieved. The query data may also include frequency counts representative of the number of times the query has been submitted. Alternatively, or additionally, the query data may include weights that are calculated using the frequency data. For example, a weight for a particular query

may be calculated by multiplying a constant value by the negative logarithm of the ratio of the frequency for the particular query to the highest frequency for all queries. Other methods of calculating a weight may also be used. The search query data may be retrieved periodically, such as once a day, once a week, or the like. Optionally, query data from multiple sources may be retrieved and consolidated by the system.

[0029] Next, the retrieved query data may be filtered. First, the most popular queries from the retrieved queries may be selected at 420. For example, the top million queries may be selected. Other amounts and criteria may also be used to filter the query data. The system may also filter the query data for controversial or objectionable queries at 430. For example, queries containing sexually explicit terms may be removed. Misspelled queries may also be removed. Alternatively, misspelled queries may be corrected. The system may also remove queries that are determined to be improper for other reasons, such as non-human submitted queries and the like. Other criteria for filtering the query data may also be used.

[0030] Finally, the system may construct indexes from the filtered query data at 440. In one implementation, the filtered queries may be split into different groups based on number of words in the query. Indexes may then be created for each query group. Exemplary one-word, two-word, and three-word indexes are shown in FIGS. 5, 6, and 7, respectively, described in more detail below. The index files may then be transmitted to the query reconstruction server 310, which may utilize the indexes to reconstruct the partial queries.

[0031] An exemplary one-word index 500 is shown in FIG. 5. The index may include a query 510 and a frequency 520 for each filtered query. The query may act as a key for the index and may be represented by a hash value based on the actual query. For example, the index may include hash values and weights for the single word queries "weather," "maps," and "game." Assuming the system receives a partial query of "w," the system may determine which single word queries match the reconstruction pattern for "w," and select "weather" as the only potential match. The reconstructed query "weather" may then be submitted to a search engine. If additional matches are found, however, the system may then select the matching query with the largest weight as the reconstructed query. Optionally, the system may designate certain remaining matching queries as

alternative queries, and provide a list of those alternative queries to the user with the search results.

[0032] An exemplary two-word index 600 is shown in FIG. 6. Two-word indexes may include a set of two sub-indexes. The first sub-index, referred to herein as the second word sub-index 625, may include a second word hash value 630 representative of all words that appear as the second word in the two word filtered query. The second word hash value 630 may act as a key for the second word sub-index, may also include corresponding values 640 representative of each potential first word that precedes the second word in the filtered two-word query. For example, the query "American Idol" may be represented as in the second word hash as the key-value pair "idol=American," while the queries "auto insurance" and "health insurance" may be represented in the second word sub-index 625 as the key-value pair of "insurance=auto,health."

[0033] Another sub-index, referred to herein as the first-word sub-index 605, may include hash values representative of the full two-word queries 610 along with their weight 620, similar to the one-word index described above. For example, the system may receive a partial query "a i" and determine potential matches from the second word sub-index of "idol," "insurance," and "ipod" by retrieving each value corresponding to the matching key. Each potential two-word query based on the partial matches may then be used to search the full query-hash 605. For example, the system may determine potential matches of "American Idol™," "auto insurance," "health insurance," and "Apple iPod™," based on the second word sub-index, and also determine that "health insurance" does not match based on the first word of the partial query "a i." The system may also determine a full query match by determining if the first word of the full query matches the first partial word of the partial query. The system may then retrieve weights 620 for each matching full query 610 from the first word sub-index 605.

[0034] The system may then select the most popular query from among the matching queries as the reconstructed query, and optionally provide the remaining matches, or a subset of those remaining matches, as alternative queries. For instance, "Apple iPod™", may have the largest weight and may be selected as the reconstructed query for submission to the search engine. The results may be provided to the user along with hyperlinks that enable the user to perform searches on the alternative queries "American Idol™," and "auto insurance."

[0035] An exemplary three-word index is shown in FIG. 7. The three-word index 700 may include three sub-indexes: a third word sub-index 745, a second word sub-index 725, and a first word query index 705. Similar to the second word sub-index 625 of the two-word index 600 described above, the third word sub-indexes 745 of the three-word index 700 may include keys 750 representative of hashed values based on the third word in the full query, and values 760 representative of list of potential second words. The second word sub-index 725 may include keys 730 representative of hashed values based on the second and third words in the query, and values 740 representative of list of potential first words. Finally, the first word sub-index 705 may include keys 710 representative of hashed values based on the three word query and values 720 representative of weights associated with each query. Using the index 700 shown in FIG. 7, the system may reconstruct the query "world cup soccer" from a partial query "w c s."

[0036] Additional indexes, such as four word or five word indexes may also be created by the system in a similar fashion. Alternatively, or additionally, the system may treat the last n words of queries containing more than a specified number of words as a single word. For example, the four word query "world cup soccer schedule" may be treated by the system as a three word query with a third word "soccer schedule". Because the number of such queries is small in comparison to the one and two word queries, placing them in a single group reduces the number of indexes which need to be managed without substantially affecting the performance of the reconstruction process. Alternatively, or additionally, the system may condense queries containing more than a specified number of terms. In condensing a query, the system may remove stop words from the query. Other methods of configuring the indexes and treating multi-word queries may also be used.

[0037] It is therefore intended that the foregoing detailed description be regarded as illustrative rather than limiting, and that it be understood that it is the following claims, including all equivalents, that are intended to define the spirit and scope of this invention.

CERTIFICATE OF EFS FILING

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS on the below date:

Date: October 11, 2011 Name: John G. Rauch Signature: /John G. Rauch/

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of: Deepa Joshi

For: METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

Attorney Docket No.: 12729-796 (Y01651US03)

UTILITY PATENT APPLICATION TRANSMITTAL

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

1. TRANSMITTED HEREWITH: New application under 37 CFR §1.53(b), which is a:
   - ☒ Continuation,
   - ☐ Divisional, or
   - ☐ Continuation-in-Part (CIP)

   Under 37 CFR §1.53(b) of prior application no. 12/765,676.

   Prior application information: Examiner: Thai, Hanh B. Art Unit: 2163

   - ☐ Maintenance of copendency of prior application: A request for extension of time and the appropriate fee have been filed in the pending prior application (or are being filed in the prior application concurrently herewith) to extend the period for response until ____.
   - ☐ Certified copy of priority document(s) has been filed in prior application no. ____.

   For Continuation or Divisional Applications only: The entire disclosure of the prior application, from which an oath or declaration is supplied as indicated below, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference.

2. ATTACHMENTS: The following application elements and other papers are attached:
   - ☒ Application Data Sheet. See 37 CFR § 1.76.
   - ☒ Title page
   - ☒ Specification, including claims and Abstract (13 pages)
   - ☒ Drawings (7 sheet(s))
   - ☐ Appendices: _____
   - ☒ Declaration or ☐ Combined Declaration and Power of Attorney (2 pages):
     - ☐ newly-executed (original or copy)
     - ☒ copy from a prior application (37 CFR §1.63(d))
     - ☐ This application is filed by fewer than all the inventors named in the prior application, 37 CFR §1.53(d)(4). Please DELETE the following inventors(s) named in prior nonprovisional application no. ____: _____
   - ☐ English Translation Document:
     - ☐ is attached or ☐ has been filed in prior application no. _____.
   - ☐ Preliminary Amendment (Note: Related application data required under 37 CFR §1.78, if any, appears in the Amendments to the Specification section of the Preliminary Amendment, including incorporations by reference.)
   - ☐ Petition to Suspend Prosecution for the Time Necessary to File an Amendment (New Application Filed Concurrently).
   - ☒ Information Disclosure Statement, including Form PTO-1449 (1 sheets) and copies of references cited, if required.

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☒ Assignment to: Yahoo! Inc.:

☐ with accompanying Assignment Recordation Cover Sheet, is attached.

☒ was previously recorded on August 10, 2006 at Reel 018162, Frame 0139.

☒ Power of Attorney (1 pages; ☐ by inventor ☒ by Yahoo! Inc.).

☐ The power appears in the original papers in the prior application.

☐ The power doesn't appear in the original papers in the prior application, but was filed on ___.

☒ A new power has been executed and is attached. ☐ The power of attorney in the prior application is to: _____ (Reg. No. ___).

☐ Nonpublication Request under 35 USC §122(b)(2)(B)(i).

☒ Other: Statement Under 37 CFR 3.73(b).

3. SMALL ENTITY STATUS:

☐ Applicant is small entity (per 37 CFR §1.27).

☐ A small entity statement was filed in prior application no. _____ and such status is still proper and desired.

☐ Small entity status is no longer desired.

4. FEE CALCULATION (AFTER ENTRY OF ANY PRELIMINARY AMENDMENT(S) IN ITEM #2 ABOVE):

Claims as Filed	Col. 1	Col. 2		Small Entity			Not a Small Entity	
For	No. Filed	No. Extra		Rate	Fee	or	Rate	Fee
Basic Fee					$ 190	or		$ 380
Total Claims	18-20	0		x$ 30=	$	or	0x$60=	$0
Independent Claims	3-3	3		x$ 125=	$	or	0x$250=	$0
Multiple Dependent Claims Present				+$225=	$	or	+$450=	$0
Utility Application Size Fee when filing via EFS (see MPEP 607 Filing Fee)				x $155=	$	or	x $310=	$0
Search Fee				+$310=	$	or	+$620=	$620
Examination Fee				+$125=	$	or	+$250=	$250
*If the difference in col. 1 is less than zero, enter "0" in col. 2.				Total	$	or	Total	$1250

5. FEE PAYMENT:

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ Please charge Deposit Account No. 23-1925 in the amount of $1250.

☒ The Director is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 23-1925.

☒ Any additional filing fees required under 37 CFR § 1.16.

☒ Any patent application processing fees under 37 CFR §1.17.

☐ The Director is hereby authorized to charge payment of the following fees during the pendency of this application or credit any overpayment to Deposit Account No. 23-1925.

☐ Any filing fees under 37 CFR § 1.16 for presentation of extra claims.

☐ Any patent application processing fees under 37 CFR § 1.17.

☐ The issue fee set in 37 CFR § 1.18 at or before mailing of the Notice of Allowance, pursuant to 37 CFR § 1.311(b).

6. CORRESPONDENCE ADDRESS: Please recognize the correspondence address for this application as the address associated with the following Customer Number:

Customer No.:

56020 - Yahoo/Overture

7. PLEASE DIRECT all telephonic communications to: John G. Rauch (tel: (312) 321-4200).

Respectfully submitted,

October 11, 2011
Date

/John G. Rauch/
John G. Rauch (Reg. No. 37,218)

American Airlines/Hilton, Ex. 1002, p.41
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY
First Named Inventor/Applicant Name:	Deepa Joshi
Filer:	John G. Rauch/Brenda Skinner
Attorney Docket Number:	12729-796 (Y01651US03)

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility application filing	1011	1	380	380
Utility Search Fee	1111	1	620	620
Utility Examination Fee	1311	1	250	250
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
	Total in USD ($)			**1250**

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
13/270,933	10/11/2011		1250	12729-796 (Y01651US03)	18	3

CONFIRMATION NO. 8111

56020
BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610

FILING RECEIPT

OC000000050606511

Date Mailed: 10/27/2011

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. 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 submit a written request for a Filing Receipt Correction. 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**

Applicant(s)

Deepa Joshi, Santa Clara, CA;

Assignment For Published Patent Application

Yahoo! Inc., Sunnyvale, CA

Power of Attorney: The patent practitioners associated with Customer Number 56020

Domestic Priority data as claimed by applicant

This application is a CON of 12/765,676 04/22/2010 PAT 8,046,347 *
which is a CON of 11/502,202 08/10/2006 PAT 7,716,201
(*)Data provided by applicant is not consistent with PTO records.

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.)

If Required, Foreign Filing License Granted: 10/25/2011

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/270,933**

Projected Publication Date: 02/02/2012

Non-Publication Request: No

Early Publication Request: No

American Airlines/Hilton, Ex. 1002, p.44
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IPR2023-00887

Title

METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

Preliminary Class

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

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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

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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).

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/270,933	10/11/2011	Deepa Joshi	12729-796 (Y01651US03)

CONFIRMATION NO. 8111

56020
BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610

POA ACCEPTANCE LETTER

OC000000050606539

Date Mailed: 10/27/2011

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 10/11/2011.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/mnguyen/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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IPR2023-00887

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 13/270,933

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	380
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	620
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	250
TOTAL CLAIMS (37 CFR 1.16(i))	18 minus 20 =	*			OR	x 60 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*				x 250 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 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).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1250

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($)	SMALL ENTITY ADDITIONAL FEE($)	OR	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))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
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))							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 found in the appropriate box in column 1.

CERTIFICATE OF EFS FILING

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS on the below date:

Date: October 11, 2011 Name: John G. Rauch Signature: /John G. Rauch/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Deepa Joshi	
Appln. No.:	n/a	Examiner: n/a
Filed:	October 11, 2011	Art Unit: n/a
For:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY	Confirmation No.: n/a
Attorney Docket No:	12729-796 (Y01651US03)	

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

This application claims priority under 35 USC §120 to the following United States patent applications: 12/765,676 and 11/502,202. In accordance with 37 CFR §1.98(d), copies of the references cited herein which were submitted to, or cited by, the office, in compliance with 37 CFR §1.98(a)-(c) in the earlier application are not provided herewith. The Examiner is directed to those references cited in all Information Disclosure Statements filed in the priority United States patent applications cited above in addition to the references cited herein.

BRINKS HOFER GILSON &LIONE

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /HT/

In accordance with the duty of disclosure under 37 CFR §1.56 and §§1.97-1.98, and more particularly in accordance with 37 CFR §1.97(b), Applicant hereby cites the following reference(s):

U.S. PATENT DOCUMENTS		
DOCUMENT NO.	**DATE**	**NAME**
5,765,147	06/09/1998	Mattos, et al.
6, 112, 172	08/2000	True, et al.
6,134,540	10/17/2000	Carey, et al.
6,269,361	07/31/2001	Davis, et al.
US 2002/0123994 A1	9/2002	Schabes, et al.
US 2003/0084027 A1	05/2003	Brandin, et al.
US 2004/0254928 A1	12/2004	Vronay, et al.
6,876,997	04/05/2005	Rorex, et al.
US 2005/0222975 A1	10/2005	Nayak, et al.
US 2005/0283468 A1	12/2005	Kamvar, et al.
US-2006/01 06769 A1	05/2006	Gibbs
US 2006/0206454 A1	09/2006	Forstall, et al.
7,149,732	12/12/2006	Wen
US 2006/0282404	12/2006	Chaudhuri, et al.
7,181,446	02/20/2007	Bossman, et al.
7,188,098	03/06/2007	Chen, et al.
US 2007/0050351 A1	03/2007	Kasperski, et al.
US 2007/0061317 A1	03/2007	Ramer, et al.
7,330,848	02/12/2008	Chaudhuri, et al.
US 2008/0040323 A1	02/14/2008	Joshi
7,337,163	02/26/2008	Srinivasan, et al.
US 2008/0114743 A1	05/2008	Venkataraman, et al.

FOREIGN PATENT DOCUMENTS		
DOCUMENT NO.	**DATE**	**COUNTRY**
WO 97/038376 A2	10/16/1997	WIPO

OTHER ART – NON PATENT LITERATURE DOCUMENTS	
H. Itoh, NTCIR-4 Patent Retrieval Experiments at RICOH, Working Notes of NTCIR-4, NII Test Collection for IR Systems Workshop 4, June 2-4, 2004, 4 pages.	
/Hanh Thai/	12/15/2011

Applicant is enclosing Form PTO-1449 (one sheet), along with a copy of each listed reference for which a copy is required under 37 CFR §1.98(a)(2). As each of the listed references is in English, no further commentary is believed to be necessary, 37

American Airlines/Hilton, Ex. 1002, p.50
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

C.F.R §1.98(a)(3). Applicant respectfully requests the Examiner's consideration of the above reference(s) and entry thereof into the record of this application.

By submitting this Statement, Applicant is attempting to fully comply with the duty of candor and good faith mandated by 37 CFR §1.56. As such, this Statement is not intended to constitute an admission that any of the enclosed references, or other information referred to therein, constitutes "prior art" or is otherwise "material to patentability," as that phrase is defined in 37 CFR §1.56(a).

The Applicant or Applicants have calculated no fee to be due in connection with the filing of this Information Disclosure Statement. However, the Director is authorized to charge any fee deficiency associated with the filing of this Information Disclosure Statement to a deposit account, as authorized in the Transmittal accompanying this Information Disclosure Statement.

Respectfully submitted,

October 11, 2011
Date

/John G. Rauch/
John G. Rauch
(Reg. No. 37,218)

American Airlines/Hilton, Ex. 1002, p.51
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /HT/

FORM PTO-1449		SERIAL NO. 13/270,933 n/a	CASE NO. 12729-796 (Y01651US03)
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		FILING DATE October 11,2011	GROUP ART UNIT 2163 n/a
(use several sheets if necessary)	APPLICANT(S): Deepa Joshi		CONFIRMATION NO. n/a

REFERENCE DESIGNATION **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
/HT/	A1	5,765,147	06/09/1998	Mattos, et al.	707/4	11/21/1996
/HT/	A2	6, 112, 172	08/2000	True, et al.	704/235	
/HT/	A3	6,134,540	10/17/2000	Carey, et al.	707/2	
/HT/	A4	6,269,361	07/31/2001	Davis, et al.	707/3	
/HT/	A5	US 2002/0123994 A1	9/2002	Schabes, et al.	707/5	
/HT/	A6	US 2003/0084027 A1	05/2003	Brandin, et al.	707/3	
/HT/	A7	US 2004/0254928 A1	12/2004	Vronay, et al.	707/005	
/HT/	A8	6,876,997	04/05/2005	Rorex, et al.	707/3	05/22/2000
/HT/	A9	US 2005/0222975 A1	10/2005	Nayak, et al.	707/003	
/HT/	A10	US 2005/0283468 A1	12/2005	Kamvar, et al.	707/003	
/HT/	A11	US-2006/0106769 A1	05/2006	Gibbs	707/003	
/HT/	A12	US 2006/0206454 A1	09/2006	Forstall, et al.	707003	
/HT/	A13	7,149,732	12/12/2006	Wen	707/006	10/12/2001
/HT/	A14	US 2006/0282404 A1	12/2006	Chaudhuri, et al.	707/002	
/HT/	A15	7,181,446	02/20/2007	Bossman, et al.	707/3	01/23/2004
/HT/	A16	7,188,098	03/06/2007	Chen, et al.	707/2	09/24/2003
/HT/	A17	US 2007/0050351 A1	03/2007	Kasperski, et al.	707/004	
/HT/	A18	US 2007/0061317 A1	03/2007	Ramer, et al.	707/004	
/HT/	A19	7,330,848	02/12/2008	Chaudhuri, et al.	707/3	05/23/2003
/HT/	A20	US 2008/0040323 A1	02/14/2008	Joshi	707/3	08/10/2006
/HT/	A21	7,337,163	02/26/2008	Srinivasan, et al.	707/3	12/04/2003
/HT/	A22	US 2008/0114743 A1	05/2008	Venkataraman, et al.	707/003	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES OR NO
/HT/	A23	WO 97/038376 A2	10/16/1997	WIPO	G06F 17/30	No

EXAMINER INITIAL		OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published.
/HT/	A24	H. Itoh, NTCIR-4 Patent Retrieval Experiments at RICOH, Working Notes of NTCIR-4, NII Test Collection for IR Systems Workshop 4, June 2-4, 2004, 4 pages.

EXAMINER /Hanh Thai/	DATE CONSIDERED 12/15/2011

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; 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

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BIB DATA SHEET

CONFIRMATION NO. 8111

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/270,933	10/11/2011	707	2163	12729-796 (Y01651US03)

APPLICANTS
Deepa Joshi, Santa Clara, CA;

**** CONTINUING DATA ***************************
This application is a CON of 12/765,676 04/22/2010 PAT 8,046,347 *
which is a CON of 11/502,202 08/10/2006 PAT 7,716,201
(*)Data provided by applicant is not consistent with PTO records.

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

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
10/25/2011

Foreign Priority claimed	35 USC 119(a-d) conditions met	Verified and Acknowledged	Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
❑ Yes ☑ No	❑ Yes ☑ No	/HANH B THAI/ Examiner's Signature	❑ Initials	CA	7	18	3

ADDRESS
BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610
UNITED STATES

TITLE
METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

FILING FEE RECEIVED		
1250	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

American Airlines/Hilton, Ex. 1002, p.53
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/270,933	10/11/2011	Deepa Joshi	12729-796 (Y01651US03)	8111

56020 7590 01/03/2012

BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
THAI, HANH B	
ART UNIT	PAPER NUMBER
2163	
MAIL DATE	DELIVERY MODE
01/03/2012	PAPER

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.

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American Airlines/Hilton v. R2 Solutions
IPR2023-00887

Office Action Summary	Application No.	Applicant(s)	
	13/270,933	JOSHI, DEEPA	
	Examiner	Art Unit	
	HANH THAI	2163	

-- 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 *11 October 2011*.

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) *1-18* 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) *1-18* 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 *11 October 2011* 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 *10/11/11*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

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American Airlines/Hilton v. R2 Solutions
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DETAILED ACTION

1. This is Non-Final Office Action in response to application filed on October 11, 2011 in which claims 1-18 are presented for examination.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on April 22, 2010 have been considered and entered into record. A copy of initialed or signed IDS is hereby attached.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-18 are rejected on the ground of nonstatutory double patenting over claims 1-18 of U.S. Patent No. 8,046,347 and claims 1-2, 7, 9 and 10 of U. S. Patent No. 7,716,201 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows.

The following table shows the claims in ‘933 that are rejected by corresponding claims in ‘347 and ‘201

Claims Comparison Table:

	‘933	‘347	‘201
Claims	1-7	1-8	1-5
	8-14	9-12	6-9
	15-18	13-18	10-14

Instant application #13/270,933	Patent # 8,046,347	Patent # 7,716,201

Claim 1. A computer database system for providing search results to a user in response to user submissions over a data network, the computer database system comprising: *a database configured to store information about events in the computer database system*; and *a query reconstruction server in data communication with the database and operative to receive a partial query submitted at a remote user client system by a user seeking search results matching the submitted partial query and, in response to the received partial query, determine a full query based on (i) the received partial query, and(ii) information stored in the database about queries previously-submitted by users*, wherein *the submitted partial query comprises an abbreviated or incomplete search query* which is not fully representative of an entire search query desired by the user and the full query is better representative of the entire search query desired by the user.	Claim 1. A computer implemented method comprising: *receiving at a server a partial query submitted at a remote user client system by a user seeking search results related to the submitted partial query, the partial query comprising one or more partial words forming an abbreviated or incomplete search query*; *storing information based on previously* submitted queries received at the server*;* *determining at the server a full query as the most frequently submitted, previously-submitted query received at the server that matches the partial words of the partial query*; and *at the server, submitting the full query to a search engine as a request for search results desired by the user;* *receiving, at the server, search results from the search engine that match the full query; and* *from the server, presenting the received search results to the user.*	Claim 1. A method for providing search results to a user, comprising: *receiving at a server a partial query submitted at a remote user client system by a user seeking search results matching the submitted partial query, the partial query comprising an abbreviated or incomplete search query* such that the submitted query is not fully representative of an entire search query desired by the user; at the server, comparing the received partial query to an index built using previously-submitted queries received at the server, the index including weights for each of the previously-submitted queries reflecting the number of times a respective query was submitted; based on the comparison to the index and the weights, *determining at the server a full query as the most frequently submitted, previously-submitted query that matches the partial words of the partial query in matching order*; *at the server, submitting the full query to a search engine as a request for search results desired by the user;* *receiving, at the server, results from the search engine that match the partial query submitted by the user as if the full query had been submitted to the search engine by the user; and* *from the server, presenting the results to the user.*

Regarding claims 1, 8 and 15 of the '933 application, these claims are directed toward the same subject matter as claims 1 and 9 of the '201 and '347 patent, except that the "submitted queries received at the server" have been omitted. In fact, "an index built using previously-submitted queries received at the server" in claims 1 and 9 is considered same meaning as "*a query reconstruction server in data communication with the database and operative to receive a partial query submitted at a remote user client system by a user*". Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been *prima facie* obvious to one with ordinary skill in the art at the time the invention was made to match the partial words of the partial query by comparing the index and the weights. The motivation would have been to accommodate an obvious need.

Regarding claims 2-18, these claims map directly other claims of the '201 and 347 patents as set forth above.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HANH B. THAI whose telephone number is (571)272-4029. The examiner can normally be reached on Mon-Thur (7:00AM - 4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 15, 2011

/Hanh B Thai/

Primary Examiner, Art Unit 2163

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13270933	JOSHI, DEEPA
	Examiner	Art Unit
	HANH THAI	2163

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

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

CLAIM		DATE								
Final	Original	12/15/2011								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
	13	✓								
	14	✓								
	15	✓								
	16	✓								
	17	✓								
	18	✓								

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IPR2023-00887

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13270933	JOSHI, DEEPA
	Examiner	Art Unit
	HANH THAI	2163

SEARCHED			
Class	Subclass	Date	Examiner
707	706, 715, 748 and 754	12/15/11	Ht

SEARCH NOTES		
Search Notes	Date	Examiner
East search (updated class search and concept text search)	12/14/11	Ht

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
707	706, 715, 748 and 754	12/14/11	Ht

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	97	(search$3 near4 result$1) and (((partial$2 abbreviated incomplete express$4 shorthand) near (query search$3)) same (full near (search$3 query)))	US-PGPUB; USPAT	OR	ON	2011/12/14 23:55
L2	65	"707"/$.ccls. and ((full$1 near query) same (partial$2 near5 (word$1 query search$3))) and ((search$3 query) with result$1)	US-PGPUB; USPAT	OR	ON	2011/12/14 23:56
L3	4	(search$3 with result$1) and ((partial$2 incomplet$2 abbreviat$2) near (query search$3)) and ((rebuild$3 reconstruct$3 construct$3 re$creat$3 creat$3) near (full complet$2) near (search$3 query))	US-PGPUB; USPAT	OR	ON	2011/12/14 23:57
L4	5	(search$3 with result$1) and ((partial$2 incomplet$2 abbreviat$2) near (query search$3)) and ((rebuild$3 reconstruct$3 construct$3 re$creat$3 creat$3) near (full complet$2) near4 (search$3 query))	US-PGPUB; USPAT	OR	ON	2011/12/14 23:57
L5	4	(search$3 with result$1) and ((partial$2 incomplet$2 abbreviat$2) near (query search$3)) and ((rebuild$3 reconstruct$3 construct$3 re$creat$3 creat$3) near (full complet$2) near (search$3 query))	US-PGPUB; USPAT	OR	ON	2011/12/14 23:57

12/ 14/ 2011 11:58:29 PM
C:\ Users\ hthai\ Documents\ EAST\ Workspaces\ 13270933.wsp

American Airlines/Hilton, Ex. 1002, p.63
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/270,933	10/11/2011	Deepa Joshi	12729-796 (Y01651US03)

CONFIRMATION NO. 8111

56020
BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610

PUBLICATION NOTICE

OC000000052361802

Title:METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

Publication No.US-2012-0030186-A1
Publication Date:02/02/2012

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.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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CERTIFICATE OF ELECTRONIC FILING

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date April 2, 2012 Name: John G. Rauch Signature: /John G. Rauch/

Our Case No. 12729-796 (Y01651US03)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Deepa Joshi, et al.	Examiner: Thai, Hanh B.
Serial No. 13/270,933	Group Art Unit No. 2163
Filing Date: October 11, 2011	Confirmation No. 8111
For METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY	

AMENDMENT

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

Dear Sir:

In response to the Office Action dated January 3, 2012, please amend the application as follows:

Listing of the Claims begins on page 2 of this paper.

Remarks begin on page 7 of this paper.

Listing of Claims

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

1. (Original) A computer database system for providing search results to a user in response to user submissions over a data network, the computer database system comprising:

a database configured to store information about events in the computer database system; and

a query reconstruction server in data communication with the database and operative to receive a partial query submitted at a remote user client system by a user seeking search results matching the submitted partial query and, in response to the received partial query, determine a full query based on

(i) the received partial query, and

(ii) information stored in the database about queries previously-submitted by users,

wherein the submitted partial query comprises an abbreviated or incomplete search query which is not fully representative of an entire search query desired by the user and the full query is better representative of the entire search query desired by the user.

2. (Original) The computer database system of claim 1 wherein the query reconstruction server is further operative to determine as the full query the most frequently submitted, previously-submitted query that matches partial words of the partial query.

3. (Original) The computer database system of claim 2 further comprising:

a web server operative to receive search results produced by a search engine and deliver web pages that include the received search results to a browser of the user.

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4. (Original) The computer database system of claim 1 further comprising:

a query data management server in data communication with the query reconstruction server and the database, the query data management server being operative to provide to the query reconstruction server the information stored in the database about queries previously-submitted by users.

5. (Original) The computer database system of claim 4 wherein the query data management server is further configured to:

retrieve from the database historical query data relating to a plurality of previously submitted search queries;

build a query index based on the historical query data;

store the query index in the database; and

provide the query index to the query reconstruction server.

6. (Original) The computer database system of claim 4 wherein the query data management server is further configured to:

retrieve from the database information about queries previously submitted to the computer database system;

filter the retrieved information about the queries; and

construct one or more indexes from the filtered query information,

the query data management server providing the constructed indexes to the query reconstruction server for use as the information stored in the database about queries previously-submitted by users when the query reconstruction server determines the full query.

7. (Original) The computer database system of claim 6 wherein the query data management server is configured to select, as the filtered query information, most popular queries from the retrieved information about queries previously submitted.

8. (Original) A computer implemented method for a computer database system, the method comprising:

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storing in memory data about previously received queries at the computer database system;

at a server, retrieving selected data from the memory including query data representative of previously submitted queries and information based on frequency counts for the respective previously submitted queries;

at the server, constructing indexes using the retrieved selected data;

receiving at the server a partial query submitted by a user at a remote user client system, the submitted partial query including an abbreviated or incomplete search query which is not fully representative of an entire search query desired by the user; and

at the server, using the indexes to determine a full query corresponding to the submitted partial query, the full query being better representative of the entire search query desired by the user.

9. (Original) The method of claim 8 further comprising communicating the full query from the server to a search engine for subsequent processing of the full query.

10. (Original) The method of claim 8 further comprising:

submitting the full query from the server to a search engine;

receiving search results at the server from the search engine; and

communicating a web page including at least some of the search results from the server to the user.

11. (Original) The method of claim 10 further comprising:

at the server, using the indexes to determine one or more alternative queries that match the submitted partial query,

and wherein communicating the web page comprises communicating a web page including at least some of the one or more alternative queries.

12. (Original) The method of claim 8 wherein receiving the partial query comprises interpreting the submitted partial query as a series of words separated by delimiters.

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13. (Original) The method of claim 12 further comprising:

at the server, interpreting each word of the received partial query as a partial word of the entire search query desired by the user; and

using the indexes, determining a full query that matches the partial words specified in the partial query.

14. (Original) The method of claim 13 wherein determining a full query comprises determining the full query that is the most frequently submitted known query, as defined by the indexes, that matches the partial words of the received partial query in the same order.

15. (Original) A computer implemented method for a computer database system, the method comprising:

storing in memory data about previously received queries at the computer database system, the stored data including respective received queries and respective weight values determined based on receipt frequency of the respective received queries;

receiving at a server of the computer database system a partial query submitted by a user at a remote user client system, the submitted partial query including an abbreviated or incomplete search query which is not fully representative of an entire search query desired by the user;

at the server, interpreting each word of the received partial query as a partial word of the entire search query desired by the user; and

at the server, identifying in the memory previously received queries that match the partial words specified in the partial query;

at the server, selecting as a full query a matching query which is most popular based on the weight values, the full query being better representative of the entire search query desired by the user.

16. (Original) The method of claim 15 further comprising:

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submitting the full query from the server to a search engine;

receiving search results at the server from the search engine; and

communicating a web page including at least some of the search results from the server to the user.

17. (Original) The method of claim 16 further comprising:

at the server, based on the weights, determining one or more alternative queries that match the submitted partial query,

and wherein communicating the web page comprises communicating a web page including at least some of the one or more alternative queries.

18. (Original) The method of claim 17 wherein communicating the web page comprises communicating a web page with one or more hyperlinks corresponding to the one or more alternative queries, the hyperlinks being selectable by the user viewing the web page to select on of the one or more alternative queries.

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TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A PRIOR PATENT	Docket Number (Optional) 12729-796 (Y01651US03)

In re Application of: Deepa Joshi, et al.

Application No. 13/270,933

Filed: October 11, 2011

For: METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

The owner*, Yahoo! Inc., of one hundred percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. 154 and 173, as presently shortened by any terminal disclaimer, of prior Patent Nos. 8,046,347 and 7,716,201. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of the prior patent, as presently shortened by any terminal disclaimer, in the event that it later: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. ☐ For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/ organization.

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 patent issued thereon.

2. ☒ The undersigned is an attorney of record. Registration No. 37,218

/John G. Rauch/	April 2, 2012
Signature	Date
John G. Rauch	312 321 4200
Typed or Printed Name	Telephone No.

☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included.
☐ A check in the amount of the fee is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☒ The Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Deposit Account No. 23-1925.

* Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Acknowledgement Receipt	
EFS ID:	12448116
Application Number:	13270933
International Application Number:	
Confirmation Number:	8111
Title of Invention:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY
First Named Inventor/Applicant Name:	Deepa Joshi
Customer Number:	56020
Filer:	John G. Rauch/Maggie Pieczonka
Filer Authorized By:	John G. Rauch
Attorney Docket Number:	12729-796 (Y01651US03)
Receipt Date:	02-APR-2012
Filing Date:	11-OCT-2011
Time Stamp:	16:50:19
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$160
RAM confirmation Number	3519
Deposit Account	231925
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 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

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	Miscellaneous Incoming Letter	12729296TRANSMITTAL040212.pdf	38219 b3757fb707ab73e13f8fee3a69bbaebe2002368f	no	1
Warnings:					
Information:					
2	Amendment/Req. Reconsideration-After Non-Final Reject	12729296AMENDMENT030212.pdf	204108 32edfc3f29a71fe57e62667d277c1241eddabe30	no	7
Warnings:					
Information:					
3	Terminal Disclaimer Filed	12729296TERMINALDISCLAIMER040212.pdf	58279 bf039aa385071e3a14af736f132072253216 6a38	no	1
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	30443 20aae498596ac481f7b6aa37a41140e437b66f99	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	331049		

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.

REMARKS

Claims 1-18 are pending in the application. Reconsideration and allowance of the application including claims 1-18 are respectfully requested.

Obviousness-type double patenting rejection

Claims 1-18 stand rejected under the doctrine of obviousness-type double patenting over claims 1-18 of US patent number 8,046,347 and claims 1-2, 7, 9 and 10 of US patent number 7,716,201. According to the Office Action at page 2, a timely filed terminal disclaimer may be used to overcome the rejection based on nonstatutory double patenting provided the conflicting patents are commonly owned.

A Terminal Disclaimer to Obviate a Double Patenting Rejection over a Prior Patent is filed herewith relative to conflicting US patent nos. 8,046,347 and 7,716,201. The conflicting patents and the present application are commonly owned by virtue of an assignment recorded on August 10, 2006 at reel 018162 frame 0139.

There being no prior art rejections or other rejections, it is respectfully submitted that the present application is in condition for allowance, which action is earnestly solicited.

With this response, the application is believed to be in condition for allowance. Should the examiner deem a telephone conference to be of assistance in advancing the application to allowance, the examiner is invited to call the undersigned attorney at the telephone number below.

Respectfully submitted,

/John G. Rauch/
John G. Rauch
Registration No. 37,218
Attorney for Applicants

April 2, 2012
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

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American Airlines/Hilton v. R2 Solutions
IPR2023-00887

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: April 2, 2012 Name: John G. Rauch Signature: /John G. Rauch/

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Deepa Joshi, et al.		
Appln. No.:	13/270,933	Examiner:	Thai, Hanh B.
Filed:	October 11, 2011	Art Unit:	2163
For:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY	Conf. No.:	8111
Attorney Docket No.:	12729-796 (Y01651US03)		

TRANSMITTAL

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Attached is/are:

☒ Amendment; Terminal Disclaimer to Obviate a Double Patenting Rejection over a Prior Patent.

Fee calculation:

☐ No additional fee is required.

☐ Small Entity.

☐ An extension fee in an amount of $_____ for a ____- month extension of time under 37 CFR § 1.136(a).

☒ A petition or processing fee in an amount of $160 under 37 CFR § 1.20(d).

☐ An additional filing fee has been calculated as shown below:

					Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus			x $30=			x $60=	
Indep.		Minus			x 125=			x $250=	
First Presentation of Multiple Dep. Claim					+$225=			+ $450=	
					Total	$		Total	$

Fee payment:

☒ Please charge Deposit Account No. 23-1925 in the amount of $160 for statutory disclaimer fee.

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

April 2, 2012
Date

/John G. Rauch/
John G. Rauch (Reg. No. 37,218)

BRINKS HOFER GILSON & LIONE
NBC Tower – Suite 3600, 455 N. Cityfront Plaza Drive, Chicago, IL 60611-5599

BRINKS HOFER GILSON &LIONE

Electronic Patent Application Fee Transmittal	
Application Number:	13270933
Filing Date:	11-Oct-2011
Title of Invention:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY
First Named Inventor/Applicant Name:	Deepa Joshi
Filer:	John G. Rauch
Attorney Docket Number:	12729-796 (Y01651US03)
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($)
Miscellaneous:				
Statutory or terminal disclaimer	1814	1	160	160
		Total in USD ($)		**160**

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
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
13/270,933	10/11/2011	

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐ RATE ($)	SMALL ENTITY ☐ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
FOR	NUMBER FILED	NUMBER EXTRA					
☐ 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 04/02/2012	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 18	Minus	** 20	= 0	X $ =		OR	X $60=	0
Independent (37 CFR 1.16(h))	* 3	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:
/LINDA A. WASHINGTON/

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.

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	13/270,933	JOSHI, DEEPA	

Document Code - DISQ	Internal Document – DO NOT MAIL

TERMINAL DISCLAIMER	☒ APPROVED	☐ DISAPPROVED
Date Filed : 04/02/12	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
Lawana Hixon

U.S. Patent and Trademark Office

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13270933	JOSHI, DEEPA
	Examiner	Art Unit
	HANH THAI	2163

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

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

CLAIM		DATE								
Final	Original	12/15/2011	04/20/2012							
	1	✓	=							
	2	✓	=							
	3	✓	=							
	4	✓	=							
	5	✓	=							
	6	✓	=							
	7	✓	=							
	8	✓	=							
	9	✓	=							
	10	✓	=							
	11	✓	=							
	12	✓	=							
	13	✓	=							
	14	✓	=							
	15	✓	=							
	16	✓	=							
	17	✓	=							
	18	✓	=							

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American Airlines/Hilton v. R2 Solutions
IPR2023-00887

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13270933	JOSHI, DEEPA
	Examiner	**Art Unit**
	HANH THAI	2163

ORIGINAL		INTERNATIONAL CLASSIFICATION														
CLASS	SUBCLASS	CLAIMED					NON-CLAIMED									
707	706	G	0	6	F	17 / 30 (2006.01.01)										

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
707	707	715	758		

☒ 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	Final	Original
	1		17												
	2		18												
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	4														
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	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														

NONE (Assistant Examiner) (Date)	**Total Claims Allowed:** 18	
/HANH THAI/ Primary Examiner.Art Unit 2163 04/20/2012 (Primary Examiner) (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 2

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American Airlines/Hilton v. R2 Solutions
IPR2023-00887

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

56020 7590 04/26/2012

BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER
THAI, HANH B

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 04/26/2012

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/270,933	10/11/2011	Deepa Joshi	12729-796 (Y01651US03)	8111

TITLE OF INVENTION: METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1740	$300	$0	$2040	07/26/2012

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.

PTOL-85 (Rev. 02/11)

American Airlines/Hilton, Ex. 1002, p.82
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

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)

56020 7590 04/26/2012
BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610

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.
13/270,933	10/11/2011	Deepa Joshi	12729-796 (Y01651US03)	8111

TITLE OF INVENTION: METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1740	$300	$0	$2040	07/26/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
THAI, HANH B	2163	707-003000

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.

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American Airlines/Hilton, Ex. 1002, p.83
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

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.
13/270,933	10/11/2011	Deepa Joshi	12729-796 (Y01651US03)	8111

56020 7590 04/26/2012

BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
THAI, HANH B	

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 04/26/2012

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 0 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 0 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.

PTOL-85 (Rev. 02/11)

American Airlines/Hilton, Ex. 1002, p.84
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

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)	
	13/270,933	JOSHI, DEEPA	
	Examiner	Art Unit	
	HANH THAI	2163	

-- 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 4/2/12*.

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 *1-18*.

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. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

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

   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

   1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

   (b) ☐ 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).

7. ☐ 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. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Hanh B Thai/
Primary Examiner, Art Unit 2163

American Airlines/Hilton, Ex. 1002, p.86
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

DETAILED ACTION

1. This is in response to amendment filed on April 2, 2012. Claims 1-18 are pending in this application.

Allowable Subject Matter

2. Claims 1-18 are allowed over the prior art of record.

3. The following is an examiner's statement of reasons for allowance:

This case is allowed in light of the Terminal Disclaimer filed on April 2, 2012.

Regarding independent claims 1, 8 and 15, the prior art fails to disclose or suggest the claimed provision "determine a full query based on the received partial query and information stored in the database about queries previously submitted by users" as claimed in conjunction with remaining claims provisions.

4. The dependent claims, being further limiting to the independent claims, definite and enabled by the Specification are also allowed.

Comments

5. 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

6. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Point of Contact

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HANH THAI whose telephone number is (571)272-4029. The examiner can normally be reached on Mon-Thur (7:00AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on 571-272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hanh B Thai/
Primary Examiner, Art Unit 2163

April 20, 2012

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13270933	JOSHI, DEEPA
	Examiner	Art Unit
	HANH THAI	2163

SEARCHED			
Class	Subclass	Date	Examiner
707	706, 715, 748 and 754	4/20/12	Ht

SEARCH NOTES		
Search Notes	Date	Examiner
East search (updated class search and concept text search)	4/20/12	Ht

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
707	706, 715, 748 and 754	4/20/12	Ht

American Airlines/Hilton, Ex. 1002, p.90
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PART B - FEE(S) TRANSMITTAL

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Certificate of Mailing or Transmission
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John G. Rauch	(Depositor's name)
/John G. Rauch/	(Signature)
May 17, 2012	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/270,933	10/11/2011	Deepa Joshi	12729-796 (Y01651US03)	8111

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EXAMINER	ART UNIT	CLASS-SUBCLASS
THAI, HANH B	2163	707-003000

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 BRINKS HOFER GILSON & LIONE
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: YAHOO! INC.
(B) RESIDENCE: (CITY and STATE OR COUNTRY): Sunnyvale, CA

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 23-1925 (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 /John G. Rauch/ Date May 17, 2012

Typed or printed name John G. Rauch Registration No. 37,218

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.

American Airlines/Hilton, Ex. 1002, p.91
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

Electronic Acknowledgement Receipt

EFS ID:	12804613
Application Number:	13270933
International Application Number:	
Confirmation Number:	8111
Title of Invention:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY
First Named Inventor/Applicant Name:	Deepa Joshi
Customer Number:	56020
Filer:	John G. Rauch/Maggie Pieczonka
Filer Authorized By:	John G. Rauch
Attorney Docket Number:	12729-796 (Y01651US03)
Receipt Date:	17-MAY-2012
Filing Date:	11-OCT-2011
Time Stamp:	15:49:13
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$2040
RAM confirmation Number	2387
Deposit Account	231925
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 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

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	Miscellaneous Incoming Letter	12729796TRANSMITTAL051712.pdf	37233 a92e93a86106451c3a511862273e386acd359336	no	1
Warnings:					
Information:					
2	Issue Fee Payment (PTO-85B)	12729796FEESTRANSMITTAL051712.pdf	76643 b39e9615efb2d751454f7f24f62cb37843629c2f	no	1
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32269 91a6e3ec43fa001645687fbcc422240b72e189b1	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	146145		

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.

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: May 17, 2012 Name: John G. Rauch Signature: /John G. Rauch/

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Deepa Joshi		
Appln. No.:	13/270,933	Examiner:	Thai, Hanh B.
Filed:	October 11, 2011	Art Unit:	2163
For:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY	Conf. No.:	8111

Attorney Docket No.: 12729/796

TRANSMITTAL

Mail Stop Issue Fee
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Attached is/are:

☒ Fee(s) Transmittal, authorizing use of deposit account for the issue and publication fees.

Fee calculation:

☐ No additional fee is required.

☐ Small Entity.

☐ An extension fee in an amount of $_____ for a ____- month extension of time under 37 CFR § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 CFR § 1.17(___) .

☐ An additional filing fee has been calculated as shown below:

						Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra		Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus				x $30=			x $60=	
Indep.		Minus				x 125=			x $250=	
First Presentation of Multiple Dep. Claim						+$225=			+ $450=	
						Total	$		Total	$

Fee payment:

☒ Please charge Deposit Account No. 23-1925 in the amount of $2040 for the issue and publication fees.

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

May 17, 2012
Date

/John G. Rauch/
John G. Rauch (Reg. No. 37,218)

BRINKS HOFER GILSON & LIONE
NBC Tower – Suite 3600, 455 N. Cityfront Plaza Drive, Chicago, IL 60611-5599

BRINKS HOFER GILSON &LIONE

Electronic Patent Application Fee Transmittal

Application Number:	13270933
Filing Date:	11-Oct-2011
Title of Invention:	METHOD AND APPARATUS FOR RECONSTRUCTING A SEARCH QUERY
First Named Inventor/Applicant Name:	Deepa Joshi
Filer:	John G. Rauch/Brenda Skinner
Attorney Docket Number:	12729-796 (Y01651US03)

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	1740	1740
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**2040**

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.
13/270,933	06/26/2012	8209317	12729-796 (Y01651US03)	8111

56020 7590 06/06/2012

BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610

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 0 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):

Deepa Joshi, Santa Clara, CA;

American Airlines/Hilton, Ex. 1002, p.97
American Airlines/Hilton v. R2 Solutions
IPR2023-00887

SUL

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

OPAP
FEB 05 2021
PATENT & TRADEMARK OFFICE

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Sherman Division on the following ☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00089	1/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Samsung Electronics America, Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,307,029	11/6/2012	R2 Solutions LLC
2	8,209,317	6/26/2012	R2 Solutions LLC
3	7,610,277	10/27/2009	R2 Solutions LLC
4			
5			

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director **Copy 3—Upon termination of action, mail this copy to Director**
Copy 2—Upon filing document adding patent(s), mail this copy to Director **Copy 4—Case file copy**

SOL

AO 120 (Rev. 08/10)

TO:	Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK

PAP AKIMA-1 FEB 0 5 2021 PATENT & TRADEMARK OFFICE

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Sherman Division on the following ☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00090	1/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Deezer S.A.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Sólutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
4	8,209,317	6/26/2012	R2 Solutions LLC
5	9,928,279	3/27/2018	R2 Solutions LLC

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

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Copy 2—Upon filing document adding patent(s), mail this copy to Director **Copy 4—Case file copy**

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Sherman Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00089	1/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Samsung Electronics America, Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,307,029	11/6/2012	R2 Solutions LLC
2	8,209,317	6/26/2012	R2 Solutions LLC
3	7,610,277	10/27/2009	R2 Solutions LLC
4			
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In the above---entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading		
	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above---entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
ORDER OF DISMISSAL. IT IS THEREFORE ORDERED that all claims by and between R2 Solutions and Samsung are hereby DISMISSED WITH PREJUDICE, with each party to bear its own costs, expenses, and attorneys' fees. All relief not previously granted is hereby denied. The Clerk is directed to close this civil action. Signed by District Judge Amos L. Mazzant, III on 6/16/2021.

CLERK	(BY) DEPUTY CLERK	DATE
David A. O'Toole		6/16/21

Copy 1---Upon initiation of action, mail this copy to Director Copy 3---Upon termination of action, mail this copy to Director
Copy 2---Upon filing document adding patent(s), mail this copy to Director Copy 4---Case file copy

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Western District of Texas, Waco Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
6:21-cv-00997	9/28/2021	Western District of Texas, Waco Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Roku, Inc.

PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 see attached page		
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

AO 120 (rev. 08/10)- ***CONTINUED FROM AO 120***

PLAINTIFF	**DEFENDANT**
R2 Solutions LLC	**Roku, Inc.**

PATENT OR TRADEMARK NO.	**DATE OF PATENT OR TRADEMARK**	**HOLDER OF PATENT OR TRADEMARK**
8,209,317	6/26/2012	R2 Solutions LLC
7,860,878	12/28/2010	R2 Solutions LLC
8,862,610	10/14/2014	R2 Solutions LLC
8,442,929	5/14/2013	R2 Solutions LLC
8,903,778	12/2/2014	R2 Solutions LLC
9,805,097	10/31/2017	R2 Solutions LLC

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Sherman Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00944	11/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Agoda Company Pte. Ltd.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
4	8,209,317	6/26/2012	R2 Solutions LLC
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In the above---entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above---entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1---Upon initiation of action, mail this copy to Director Copy 3---Upon termination of action, mail this copy to Director
Copy 2---Upon filing document adding patent(s), mail this copy to Director Copy 4---Case file copy

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Sherman Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00945	11/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Redfin Corporation

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,341,157	12/25/2012	R2 Solutions LLC
2	7,698,329	4/13/2010	R2 Solutions LLC
3	8,209,317	6/26/2012	R2 Solutions LLC
4	8,862,610	10/14/2014	R2 Solutions LLC
5	9,805,097	10/31/2017	R2 Solutions LLC

In the above---entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above---entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

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Copy 2---Upon filing document adding patent(s), mail this copy to Director Copy 4---Case file copy

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Sherman Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00942	11/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Booking.com B.V.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
4	8,209,317	6/26/2012	R2 Solutions LLC
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In the above---entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above---entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1---Upon initiation of action, mail this copy to Director Copy 3---Upon termination of action, mail this copy to Director
Copy 2---Upon filing document adding patent(s), mail this copy to Director Copy 4---Case file copy

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Sherman Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00943	11/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Booking.com Transport Limited

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
4	8,209,317	6/26/2012	R2 Solutions LLC
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In the above---entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above---entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1---Upon initiation of action, mail this copy to Director Copy 3---Upon termination of action, mail this copy to Director
Copy 2---Upon filing document adding patent(s), mail this copy to Director Copy 4---Case file copy

SOL

AO 120 (Rev. 08/10)

TO:	Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK

OPAP ARCHIVAL OCT 0 1 2021 PATENT & TRADEMARK OFFICE

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DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
6:21-cv-00997	9/28/2021	Western District of Texas, Waco Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Roku, Inc.

PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

AO 120 (rev. 08/10)- ***CONTINUED FROM AO 120***

PLAINTIFF	DEFENDANT
R2 Solutions LLC	**Roku, Inc.**

PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
8,209,317	6/26/2012	R2 Solutions LLC
7,860,878	12/28/2010	R2 Solutions LLC
8,862,610	10/14/2014	R2 Solutions LLC
8,442,929	5/14/2013	R2 Solutions LLC
8,903,778	12/2/2014	R2 Solutions LLC
9,805,097	10/31/2017	R2 Solutions LLC

AO 120 (Rev. 08/10)

TO:	Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK

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PLAINTIFF	DEFENDANT
R2 Solutions LLC	Roku, Inc.

PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
12/14/2021 - Voluntary Dismissal

CLERK	(BY) DEPUTY CLERK	DATE
Jeannette J. Clack	Jennifer Clark	12/14/2021

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

AO 120 (rev. 08/10)- ***CONTINUED FROM AO 120***

PLAINTIFF	**DEFENDANT**
R2 Solutions LLC	**Roku, Inc.**

PATENT OR TRADEMARK NO.	**DATE OF PATENT OR TRADEMARK**	**HOLDER OF PATENT OR TRADEMARK**
8,209,317	6/26/2012	R2 Solutions LLC
7,860,878	12/28/2010	R2 Solutions LLC
8,862,610	10/14/2014	R2 Solutions LLC
8,442,929	5/14/2013	R2 Solutions LLC
8,903,778	12/2/2014	R2 Solutions LLC
9,805,097	10/31/2017	R2 Solutions LLC

AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Sherman Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:22-cv-00353	4/28/2022	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	American Airlines, Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
4	8,209,317	6/26/2012	R2 Solutions LLC
5			

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

AO 120 (Rev. 08/10)

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☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:22-cv-00357	4/28/2022	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Citigroup Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
4	8,209,317	6/26/2012	R2 Solutions LLC
5	7,370,011	5/6/2008	R2 Solutions LLC

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

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☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:22-cv-00356	4/28/2022	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Hilton Worldwide Holdings Inc.; and Hilton International Holding LLC

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
4	8,209,317	6/26/2012	R2 Solutions LLC
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DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:22-cv-00354	4/28/2022	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	CVS Health Corporation; and CVS Pharmacy, Inc.,

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
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MAY 0 2 2022
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4:22-cv-00356	4/28/2022	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Hilton Worldwide Holdings Inc.; and Hilton International Holding LLC

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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4:22-cv-00353	4/28/2022	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	American Airlines, Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
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DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:22-cv-00354	4/28/2022	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	CVS Health Corporation; and CVS Pharmacy, Inc.,

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
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DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:22-cv-00357	4/28/2022	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Citigroup Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

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☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00944	11/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Agoda Company Pte. Ltd.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
4	8,209,317	6/26/2012	R2 Solutions LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading		
	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
The Court is of the opinion that the Joint Stipulation of Dismissal should be, in all respects, GRANTED. IT IS THEREFORE ORDERED that all claims by and between R2 and Agoda Company Pte. Ltd. in the above-captioned action are hereby DISMISSED WITH PREJUDICE

CLERK	(BY) DEPUTY CLERK	DATE
David A. O'Toole	Marie Hipon	**5/24/22**

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
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AO 120 (Rev. 08/10)

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☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00943	11/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Booking.com Transport Limited

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
2	8,341,157	12/25/2012	R2 Solutions LLC
3	7,698,329	4/13/2010	R2 Solutions LLC
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PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

The Joint Stipulation of Dismissal should be, in all respects, GRANTED. IT IS THEREFORE ORDERED that all claims by and between R2 and Booking.com Transport Limited ("Rentalcars.com") in the above-captioned action are hereby DISMISSED WITH PREJUDICE

CLERK	(BY) DEPUTY CLERK	DATE
David A. O'Toole	Marie Hippen	**5/24/22**

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☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
4:21-cv-00942	11/29/2021	Eastern District of Texas, Sherman Division

PLAINTIFF	DEFENDANT
R2 Solutions LLC	Booking.com B.V.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,190,610	5/29/2012	R2 Solutions LLC
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
ORDER OF DISMISSAL. IT IS ORDERED that all claims by and between R2 and Booking.com in the above-captioned action are hereby DISMISSED WITH PREJUDICE.

CLERK	(BY) DEPUTY CLERK	DATE
David A. O'Toole		5/24/22

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