UNITED STATES
PATENT AND TRADEMARK OFFICE

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
16/265,615	**11/05/2023 01:30:33 PM Z ET**	**M4921.2110 [CAO/sf]**

Title of Invention

DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	10789626
CONFIRMATION #	7032	FILED BY	Cecily O'Regan
PATENT CENTER #	63163128	FILING DATE	02/01/2019
CUSTOMER #	62993	FIRST NAMED INVENTOR	Narendra Nath
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	-

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
Metarail M4921.2110 - Change of Address SB123 - 2023-11-05.pdf	1	Change of Address	62 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
Metarail M4921.2110 - Change of Address SB123 - 2023-11-05.pdf	B243BF0A359CB6B186FCFC92E7C2760C5ADE1DFC0421E130E21998122ED4601A34375118DF36E32672DC13D124277EA5617FF6B192375314F136B11CAC5078ED

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized

Google Exhibit 1002
Google v. Metarail

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 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.

PTO/SB/123 (04-15)
Approved for use through 03/31/2021. OMB 0651-0035
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Patent

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Patent Number	10,789,626
Issue Date	9/29/2020
Application Number	16/265,615
Filing Date	2/1/2019
First Named Inventor	Narendra NATH
Attorney Docket Number	M4921.2110

Please change the Correspondence Address for the above-identified patent to:

☐ The address associated with Customer Number: [ ]

OR

☒ **Firm *or* Individual Name** METARAIL, INC.

1901 Central Drive #716

Address

City Bedford **State** TX **ZIP** 76021

Country United States

Telephone **Email** grwhite@metarail.com

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I am the:

☐ Patentee.

☐ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

☒ Attorney or agent of record. Registration Number 37448.

Signature	/cecily oregan/
Typed or Printed Name	Cecily Anne O'Regan
Date	November 5, 2023
Telephone	

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 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: Mail Stop Post Issue, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/265,615	02/01/2019	Narendra Nath	M4921.2110 [CAO/sf]	7032

62993 7590 10/13/2020

BUCHALTER
18400 VON KARMAN AVE.
SUITE 800
IRVINE, CA 92612

EXAMINER	
KARMIS, ALISSA D	

ART UNIT	PAPER NUMBER
3683	

NOTIFICATION DATE	DELIVERY MODE
10/13/2020	ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing.buchalter@clarivate.com
ipdocket@buchalter.com
kbarnes@buchalter.com

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

In re Application of	:	
Nath et al.	:	
Application No. 16/265,615	:	
Filed: 1 Feb 2019	:	DECISION ON PETITION
For: DEEP-LINKING SYSTEM, METHOD	:	
AND COMPUTER PROGRAM PRODUCT	:	
FOR ONLINE ADVERTISEMENT AND	:	
E-COMMERCE	:	

This is a decision on the Request to Withdraw as attorney or agent of record under 37 CFR §1.36(b) filed 15 May 2020.

The request is **DISMISSED AS MOOT**.

A Power Of Attorney under 37 CFR § 1.36 was filed on 15 May 2020. The Power Of Attorney revoked all prior Powers Of Attorney and was accepted on 19 May 2020.

Accordingly, all communications from the U.S. Patent and Trademark Office to applicant will continue to be directed to the correspondence address of record unless otherwise instructed by the applicant.

Telephone inquiries concerning this decision should be directed to the undersigned at (571) 272-3213.

/Cheryl Gibson-Baylor/
Cheryl Gibson-Baylor
Petitions Paralegal Specialist
Office of Petitions

Cc: Sprinkle IP Law Group
1301 W. 25th Street
Suite 408
Austin, TX 78705

Transmittal Communication on Petition	Application/Control No. 16/265,615	Applicant(s)/Patent Under Reexamination Nath et al.	
	Deciding Official KARMIS, ALISSA D	Office of Petitions OPET	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address. --

(ADDITIONAL PARTY'S CORRESPONDENCE ADDRESS)

Cc: Sprinkle IP Law Group
1301 W. 25th Street
Suite 408
Austin, TX 78705

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above-identified Application/Patent.

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.
16/265,615	09/29/2020	10789626	M4921.2110 [CAO/sf]	7032

62993 7590 09/09/2020

BUCHALTER
18400 VON KARMAN AVE.
SUITE 800
IRVINE, CA 92612

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):

Narendra Nath, Hillsborough, CA;
MetaRail, Inc., San Mateo, CA;
Mallikarjun Hiremani, Fremont, CA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

IR103 (Rev. 10/09)

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United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/265,615	02/01/2019	Narendra Nath	M4921.2110 [CAO/sf]	7032

62993 7590 09/02/2020

BUCHALTER
18400 VON KARMAN AVE.
SUITE 800
IRVINE, CA 92612

EXAMINER	
KARMIS, ALISSA D	

ART UNIT	PAPER NUMBER
3683	

NOTIFICATION DATE	DELIVERY MODE
09/02/2020	ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing.buchalter@clarivate.com
ipdocket@buchalter.com
kbarnes@buchalter.com

UNITED STATES DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office
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Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR/ PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
16/265,615	02/01/2019	Nath et al.	M4921.2110 [CAO/s

		EXAMINER	
BUCHALTER 18400 VON KARMAN AVE. SUITE 800 IRVINE, CA 92612		ALISSA KARMIS	
		ART UNIT	PAPER
		3683	20200825

DATE MAILED: _____

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

The IDS received on 08/20/2020 after a Notice of Allowance mailed on 05/28/2020 has been considered.

/ALISSA D KARMIS/ Examiner, Art Unit 3683	/ROBERT D RINES/ Primary Examiner, Art Unit 3624

PTO-90C (Rev.04-03)

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16265615
Filing Date	2019-02-01
First Named Inventor	Narendra NATH
Art Unit	3684
Examiner Name	KARMIS, ALISSA D.
Attorney Docket Number	M4921.2110

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20170185596	A1	2017-06-29	Spirer	Entire Document
	2	20170308939	A1	2017-10-26	Krishnan et al.	Entire Document

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16265615
	Filing Date	2019-02-01
	First Named Inventor	Narendra NATH
	Art Unit	3684
	Examiner Name	KARMIS, ALISSA D.
	Attorney Docket Number	M4921.2110

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		

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EXAMINER SIGNATURE

Examiner Signature	/ALISSA D KARMIS/	Date Considered	08/25/2020

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D.K/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16265615
	Filing Date	2019-02-01
	First Named Inventor	Narendra NATH
	Art Unit	3684
	Examiner Name	KARMIS, ALISSA D.
	Attorney Docket Number	M4921.2110

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Cecily Anne O'Regan/	Date (YYYY-MM-DD)	2020-08-20
Name/Print	Cecily Anne O'Regan	Registration Number	37448

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D.K/

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 the Freedom of Information Act requires disclosure of these record s.

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 inspections 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.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D.K/

PART B - FEE(S) TRANSMITTAL

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Commissioner for Patents
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Alexandria, Virginia 22313-1450

By fax, send to: (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)

62993 7590 05/28/2020
BUCHALTER
18400 VON KARMAN AVE.
SUITE 800
IRVINE, CA 92612

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 transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

Cecily Anne O'Regan	(Typed or printed name)
/Cecily Anne O'Regan/	(Signature)
August 21, 2020	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/265,615	02/01/2019	Narendra Nath	M4921.2110 [CAO/sf]	7032

TITLE OF INVENTION: DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	08/28/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
KARMIS, ALISSA D	3683	705-014730

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 03-09 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 BUCHALTER
2 CECILY ANNE O'REGAN
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 must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: METARAIL, INC.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): SAN MATEO, 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. Fees submitted: ☒ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 50-0977

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /CECILY ANNE O'REGAN/ Date AUGUST 21, 2020

Typed or printed name CECILY ANNE O'REGAN Registration No. 37,448

Electronic Patent Application Fee Transmittal

Application Number:	16265615
Filing Date:	01-Feb-2019
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Filer:	Cecily Anne O'Regan
Attorney Docket Number:	M4921.2110 [CAO/sf]

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

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	2501	1	500	500

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**500**

Electronic Acknowledgement Receipt	
EFS ID:	40347125
Application Number:	16265615
International Application Number:	
Confirmation Number:	7032
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Customer Number:	62993
Filer:	Cecily Anne O'Regan
Filer Authorized By:	
Attorney Docket Number:	M4921.2110 [CAO/sf]
Receipt Date:	21-AUG-2020
Filing Date:	01-FEB-2019
Time Stamp:	10:37:40
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$500
RAM confirmation Number	E20208KA38161058
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	Metarail-2110-IssueFeePayment.pdf	88836 7b72acb261c2db94dd8aadb9632e69788b5fbf15	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30329 e97ec134d8c4e93ea52410dff795e5aba71280df	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	119165		

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.

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
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.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16265615
Filing Date	2019-02-01
First Named Inventor	Narendra NATH
Art Unit	3684
Examiner Name	KARMIS, ALISSA D.
Attorney Docket Number	M4921.2110

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button. Add

U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20170185596	A1	2017-06-29	Spirer	Entire Document
	2	20170308939	A1	2017-10-26	Krishnan et al.	Entire Document

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FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

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NON-PATENT LITERATURE DOCUMENTS Remove

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	16265615
	Filing Date	2019-02-01
	First Named Inventor	Narendra NATH
	Art Unit	3684
	Examiner Name	KARMIS, ALISSA D.
	Attorney Docket Number	M4921.2110

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16265615
	Filing Date	2019-02-01
	First Named Inventor	Narendra NATH
	Art Unit	3684
	Examiner Name	KARMIS, ALISSA D.
	Attorney Docket Number	M4921.2110

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Cecily Anne O'Regan/	Date (YYYY-MM-DD)	2020-08-20
Name/Print	Cecily Anne O'Regan	Registration Number	37448

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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 the Freedom of Information Act requires disclosure of these record s.

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 inspections 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.

Electronic Patent Application Fee Transmittal

Application Number:	16265615
Filing Date:	01-Feb-2019
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Filer:	Cecily Anne O'Regan
Attorney Docket Number:	M4921.2110 [CAO/sf]

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

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($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	120	120
		Total in USD ($)		**120**

Electronic Acknowledgement Receipt	
EFS ID:	40343891
Application Number:	16265615
International Application Number:	
Confirmation Number:	7032
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Customer Number:	62993
Filer:	Cecily Anne O'Regan
Filer Authorized By:	
Attorney Docket Number:	M4921.2110 [CAO/sf]
Receipt Date:	20-AUG-2020
Filing Date:	01-FEB-2019
Time Stamp:	18:23:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$120
RAM confirmation Number	E20208JI24221616
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	Metarail_2110_Suppl_IDS.pdf	1053176 bbc7f66b14e6b7c0d33fce590002ca573503c619	no	4
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30647 e883b1a67964b7ea9d6c2daa9fc862c5b19f4363	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1083823		

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.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/265,615	02/01/2019	Narendra Nath	M4921.2110 [CAO/sf]	7032

62993 7590 08/06/2020

BUCHALTER
18400 VON KARMAN AVE.
SUITE 800
IRVINE, CA 92612

EXAMINER	
KARMIS, ALISSA D	

ART UNIT	PAPER NUMBER
3683	

NOTIFICATION DATE	DELIVERY MODE
08/06/2020	ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing.buchalter@clarivate.com
ipdocket@buchalter.com
kbarnes@buchalter.com

UNITED STATES DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR/ PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
16/265,615	02/01/2019	Nath et al.	M4921.2110 [CAO/s

		EXAMINER	
BUCHALTER 18400 VON KARMAN AVE. SUITE 800 IRVINE, CA 92612		ALISSA KARMIS	
		ART UNIT	PAPER
		3683	20200724

DATE MAILED: _____

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

The listing of original claims was corrected on the IFW-PTOL Issue Classification form.

/ALISSA D KARMIS/ Examiner, Art Unit 3683	/ROBERT D RINES/ Primary Examiner, Art Unit 3624

PTO-90C (Rev.04-03)

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/265,615	Nath et al.
	Examiner	Art Unit
	ALISSA KARMIS	3683

CPC						
Symbol					Type	Version
G06Q	/	30	/	0277	F	2013-01-01
G06F	/	16	/	951	I	2019-01-01
G06N	/	5	/	04	I	2013-01-01
G06Q	/	30	/	0276	I	2013-01-01

CPC Combination Sets							
Symbol					Type	Set	Ranking	Version
	/		/					

/ALISSA D KARMIS/ Examiner, Art Unit 3683	24 July 2020	Total Claims Allowed:	
(Assistant Examiner)	(Date)	10	
/ROBERT D RINES/ Primary Examiner, Art Unit 3624	02 August 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	14

U.S. Patent and Trademark Office — Part of Paper No.: 20200724

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/265,615	Nath et al.
	Examiner	**Art Unit**
	ALISSA KARMIS	3683

INTERNATIONAL CLASSIFICATION				
CLAIMED				
G06Q	/	30	/	02
G06F	/	16	/	951
G06N	/	5	/	04

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
705	14.73

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

/ALISSA D KARMIS/ Examiner, Art Unit 3683 (Assistant Examiner)	24 July 2020 (Date)	**Total Claims Allowed:** 10	
/ROBERT D RINES/ Primary Examiner, Art Unit 3624 (Primary Examiner)	02 August 2020 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 14

U.S. Patent and Trademark Office — Part of Paper No.: 20200724

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/265,615	Nath et al.
	Examiner	Art Unit
	ALISSA KARMIS	3683

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

CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	10	10												
2	2														
3	3														
4	4														
5	5														
6	6														
7	7														
8	8														
9	9														

/ALISSA D KARMIS/ Examiner, Art Unit 3683	24 July 2020	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	10	
/ROBERT D RINES/ Primary Examiner, Art Unit 3624	02 August 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	14

U.S. Patent and Trademark Office — Part of Paper No.: 20200724

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

62993 7590 05/28/2020

BUCHALTER
18400 VON KARMAN AVE.
SUITE 800
IRVINE, CA 92612

EXAMINER
KARMIS, ALISSA D

ART UNIT	PAPER NUMBER
3683	

DATE MAILED: 05/28/2020

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/265,615	02/01/2019	Narendra Nath	M4921.2110 [CAO/sf]	7032

TITLE OF INVENTION: DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	08/28/2020

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 ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

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: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (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)

62993 7590 05/28/2020
BUCHALTER
18400 VON KARMAN AVE.
SUITE 800
IRVINE, CA 92612

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 transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/265,615	02/01/2019	Narendra Nath	M4921.2110 [CAO/sf]	7032

TITLE OF INVENTION: DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	08/28/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
KARMIS, ALISSA D	3683	705-014730

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 03-09 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 must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). 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. Fees submitted: ❑Issue Fee ❑Publication Fee (if required) ❑Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/265,615	02/01/2019	Narendra Nath	M4921.2110 [CAO/sf]	7032

62993 7590 05/28/2020

BUCHALTER
18400 VON KARMAN AVE.
SUITE 800
IRVINE, CA 92612

EXAMINER	
KARMIS, ALISSA D	

ART UNIT	PAPER NUMBER
3683	

DATE MAILED: 05/28/2020

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

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.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B 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 30 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.

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. 16/265,615	Applicant(s) Nath et al.	
	Examiner ALISSA KARMIS	Art Unit 3683	AIA (FITF) Status No

-- 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 Applicant's amendment and terminal disclaimer received on 04/24/2020.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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 1-10 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

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

6. ☐ 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. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☑ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☑ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/ALISSA D KARMIS/ Examiner, Art Unit 3683	/ROBERT D RINES/ Primary Examiner, Art Unit 3624

DETAILED ACTION

1. The following **NOTICE OF ALLOWANCE** is in response to Applicant's response received on 04/24/2020 which includes the filing of a terminal disclaimer. Applicant's application is a CON of Application 15/463,790 now US Patent No. 10,262,342.

Notice of Pre-AIA or AIA Status

2. The present application is being examined under the pre-AIA first to invent provisions.

Status of the Claims

3. Claim 1 has been amended in Applicant's response and claims 2-10 are newly added for which adequate support is confirmed in the original filed specification.

Response to Arguments

4. Applicant's request to withdraw the Claim Objections for minor informalities (i.e., changing "a" to "the" and including an omitted "to" in claim 1) is persuasive based on the corrections provided by Applicant. The objection is withdrawn.

5. Applicant's request to withdraw the Double Patenting rejection based on the timely filed terminal disclaimer that was approved by the Office on 04/24/2020 is persuasive. The rejection is withdrawn.

EXAMINER'S AMENDMENT

6. Authorization for this examiner's amendment to correct an inadvertent typo was given in an interview with Ms. Katharina Schuster, Reg. No. 50,000 on 05/12/2020.

The application has been amended as follows: **in claim 7 line 8 change the word "set" to "site"**.

Allowable Subject Matter

7. Claims 1-10 are allowable.

Reasons for Allowance

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

With respect to 35 U.S.C. 101, the claims are directed to patent-eligible subject matter. The claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer technology and goes beyond generally linking the generating of advertisements in an online environment. As noted in Applicant's original filed specification (see e.g., [0009]-[0011]), the claims overcome problems with previously used techniques for online deep-linked ad connections between publisher sites/apps and advertiser sites/apps. The specification further notes that because each web site uses its own field descriptors and variable names, the only way to create deep-linked ads has been to manually obtain the names of the respective variables from both publishers and advertisers and then integrate them

to each other through manual programming. Such manual programming is time and resource intensive that multiplies as the size of the network grows thus limiting the size, scale and market adoption for deep-linked ads. Also, this manual mode requires prior knowledge of ads to be placed on a given publisher's site or app in order for the deep-linked integrations to be pre-built. Therefore, utilizing the claimed universal variable map to generate the deep-linked ads and connections between publisher sites/apps and advertiser sites/apps via the programming variables and pass values corresponding to the programming variables from a first site/app to the linked programming variables on a second site/app such that fields on the second site/app result in being pre-populated is a technical solution to the problem addressed by Applicant and goes beyond the generating of advertisements in an online environment. Also, similar to the findings in the *DDR Holdings, LLC v. Hotels.com, L.P. (773 F.3d 1245, 113 U.S.P.Q.2d 1097 (Fed. Cir. 2014))* decision regarding the manipulation of a website visitor's navigation when they activate a link in an advertisement to achieve a desired result, Applicant's invention also manipulates a website visitor's navigation via deep-linked ads to achieve a desired result.

With respect to relevant prior art, the closest prior art is NPL TripAdvisor (newly cited on PTO-892 for this Notice of Allowance) and Markus US 6,490,601 (newly cited on PTO-892 for this Notice of Allowance and cited on previous PTO-892 for Application 15/463,790 now US Patent No. 10,262,342 in which the instant application is a CON of).

NPL TripAdvisor teaches targeted online advertising using indexing technologies that enable delivering contextual links, while a user is searching on TripAdvisor's website, for specific offers which correlate to the search terms used by the user and

once the link is clicked on the website then the user is deep-linked to that offering or ad including directly to the booking page with complete travel and booking details. Markus teaches mapping non-standard fields in an electronic form to pre-named fields or standard fields. The combination of NPL TripAdvisor and Markus does not teach the combined features of the independent claim of the instant application regarding: generating and serving a deep-linked ad on a first Internet site or application in which the programming variables of the first Internet site or application are linked to programming variables of a second Internet site or application based on the utilizing a universal variable map that associates and links those programming variables across multiple sites and applications; in response to a user interacting with the displayed deep-linked ad on the first Internet site or application, automatically directing the user's device to the second Internet site or application and pre-populating fields corresponding to the programming variables on the second Internet site or application with extracted values corresponding to the programming variables of the first Internet site or application.

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

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

New advertising technology delivers results for travel marketers: TripAdvisor's contextual links produce response rates 32x better than banner advertising. December 3, 2001. https://tripadvisor.mediaroom.com/.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALISSA KARMIS whose telephone number is (571)270-7277. The examiner can normally be reached on M-F 8:30am - 5pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on 571-272-6724. 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 https://ppair-my.uspto.gov/pair/PrivatePair. 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.

/ALISSA D KARMIS/
Examiner, Art Unit 3683

/ROBERT D RINES/
Primary Examiner, Art Unit 3624

Examiner-Initiated Interview Summary	**Application No.** 16/265,615	**Applicant(s)** Nath et al.	
	Examiner ALISSA KARMIS	**Art Unit** 3683	**AIA (FITF) Status** No

All participants (applicant, applicant's representative, PTO personnel):

(1) ALISSA KARMIS, Examiner. (3) _____.

(2) Katharina Schuster, Applicant's representative. (4) _____.

Date of Interview: 12 May 2020.

Type: ☑ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☑ No.
If Yes, brief description: _____.

Issues Discussed ☐ 101 ☐ 112 ☐ 102 ☐ 103 ☑ Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1.

Identification of prior art discussed: NA.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Discussed Examiner's Amendment to correct claim 7 line 8...the word "set" should be "site".

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/ALISSA D KARMIS/ Examiner, Art Unit 3683	/ROBERT D RINES/ Primary Examiner, Art Unit 3624

Notice of References Cited	Application/Control No. 16/265,615	Applicant(s)/Patent Under Reexamination Nath et al.	
	Examiner ALISSA KARMIS	Art Unit 3683	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-6490601-B1	12-2002	Markus; Matthew A.	G06F21/6245	715/207
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	New advertising technology delivers results for travel marketers: TripAdvisor's contextual links produce response rates 32x better than banner advertising. December 3, 2001. https://tripadvisor.mediaroom.com/ (Year: 2001)
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/265,615	Nath et al.
	Examiner	**Art Unit**
	ALISSA KARMIS	3683

CPC							
Symbol						**Type**	**Version**
G06Q	/	30	/	0277		F	2013-01-01
G06F	/	16	/	951		I	2019-01-01
G06N	/	5	/	04		I	2013-01-01
G06Q	/	30	/	0276		I	2013-01-01

CPC Combination Sets								
Symbol						**Type**	**Set**	**Ranking**	**Version**
	/		/						

/ALISSA D KARMIS/ Examiner, Art Unit 3683	21 May 2020	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	10	
/ROBERT D RINES/ Primary Examiner, Art Unit 3624	23 May 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	14

U.S. Patent and Trademark Office — Part of Paper No.: 20200430

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/265,615	Nath et al.
	Examiner	**Art Unit**
	ALISSA KARMIS	3683

INTERNATIONAL CLASSIFICATION				
CLAIMED				
G06Q	/	30	/	02
G06F	/	16	/	951
G06N	/	5	/	04

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
705	14.73

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

/ALISSA D KARMIS/ Examiner, Art Unit 3683	21 May 2020	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	10	
/ROBERT D RINES/ Primary Examiner, Art Unit 3624	23 May 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	14

U.S. Patent and Trademark Office — Part of Paper No.: 20200430

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/265,615	Nath et al.
	Examiner	Art Unit
	ALISSA KARMIS	3683

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

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	10													
2															
3															
4															
5															
6															
7															
8															
9															

/ALISSA D KARMIS/ Examiner, Art Unit 3683	21 May 2020	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	10	
/ROBERT D RINES/ Primary Examiner, Art Unit 3624	23 May 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	14

U.S. Patent and Trademark Office — Part of Paper No.: 20200430

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/265,615	Nath et al.
	Examiner	Art Unit
	ALISSA KARMIS	3683

CPC - Searched*		
Symbol	Date	Examiner
G06F16/84-88; G06Q30/0276-0277; G06F16/951; G06N5/04	04/29/2020	AK

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST keyword search - see attached	10/24/2019	AK
EAST updated keyword search; interference keyword and claim wording search; CPC with keyword search, Foreign ref keyword search - see attached	04/29/2020	AK
EBSCOhost keyword search - see attached	04/29/2020	AK
PALM Applicant/Inventor search	04/29/2020	AK

/ALISSA D KARMIS/ Examiner, Art Unit 3683	/ROBERT D RINES/ Primary Examiner, Art Unit 3624

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/265,615	Nath et al.
	Examiner	Art Unit
	ALISSA KARMIS	3683

Interference Search			
US Class/CPC Symbol	**US Subclass/CPC Group**	**Date**	**Examiner**
G06F16	84-88	04/29/2020	AK
G06Q30	0276-0277	04/29/2020	AK
G06F16	951	04/29/2020	AK
G06N5	04	05/12/2020	AK

/ALISSA D KARMIS/ Examiner, Art Unit 3683	/ROBERT D RINES/ Primary Examiner, Art Unit 3624

EBSCO HOST Research Databases

Thursday, April 30, 2020 12:40:58 PM

Search ID#	Search Terms	Search Options	Last Run Via	Results
S37	((deep N1 link*) or deep-link*) N20 (marketing or advertisement or banner)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	148
S36	((deep N1 link*) or deep-link*) N20 (advertisement or banner)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	86
S35	click$ N20 deep-link* N20 (advertisement or banner)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	1
S34	(transfer* N10 context N20 (page or site or webpage or website)) AND ((reservation or shopping))	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	198
S33	transfer* N10 context N20 (page or site or webpage or website)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	1,033
S32	transfer* N10 context N20 (webpage or website)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	27

S31	transfer* N5 context N5 (webpage or website)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	5
S30	transfer* N5 context N5 webpages	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	0
S29	(auto-fill* or pre-fill* or automated) N10 target* N3 (form or field or site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	438
S28	(auto-fill* or pre-fill*) N10 target* N3 (form or field or site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	13
S27	(auto-fill* or pre-fill*) N10 target* N3 (field or site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	8
S26	(auto-fill* or pre-fill*) N10 target N3 (field or site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	7
S25	(auto-fill* or pre-fill*) N10 target N3 (site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	1

S24	pre-populat* N10 target N3 (site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	3
S23	pre-populat* N10 (horizontal or vertical or product or date or category) N5 target N3 (site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	0
S22	pre-populat* N5 (horizontal or vertical or product or date or category) N5 through N5 target N3 (site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	0
S21	pre-populat* N5 (product or date or category) N5 through N5 target N3 (site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	0
S20	pass* N5 (category) N5 through N5 target N3 (site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	0
S19	pass* N5 (date or product) N5 through N5 target N3 (site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	3
S18	pass* N5 (selected) N5 (date or product) N5 through N5 target N3 (site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	0

S17	pass* N5 (value or context or vertical or horizontal) N5 through N5 target N3 (site or website or webpage)	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	6
S16	pass* N5 (value or context or vertical or horizontal) N5 through N5 target	Limiters - Full Text; Date Published: 19550101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	487
S15	pass* N5 (value or context or vertical or horizontal) N5 through N5 target	Limiters - Full Text Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	1,065
S14	((universal or global or generic) N2 (variable or (field N1 name))) AND (link* N10 ((input N1 field) or (form N1field)) N10 similar)	Limiters - Full Text Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	1
S13	((universal or global or generic) N2 (variable or (field N1 name))) AND (map* N10 ((input N1 field) or (form N1field)) N10 similar)	Limiters - Full Text Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	2
S12	((universal or global or generic) N2 (variable or (field N1 name))) AND map* N10 (field N1 name) N10 similar	Limiters - Full Text Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	1
S11	((universal or global or generic) N2 (variable or (field N1 name))) AND map* N5 (field N1 name) N5 similar	Limiters - Full Text Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Advanced Search Database - Discover NPL	0

S10	(universal or global or generic) N2 (variable or (field N1 name))	Limiters - Full Text; Peer Reviewed; Date Published: 20020101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	495,713
S9	deep-link* and (advertising or advertisement)	Limiters - Full Text; Peer Reviewed; Date Published: 20020101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	246
S8	deep-link*3 and (advertising or advertisement)	Limiters - Full Text; Peer Reviewed; Date Published: 20020101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	0
S7	deep-linking N20 advertisement	Limiters - Full Text; Peer Reviewed; Date Published: 20020101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	3
S6	deep-linking N/5 advertisement	Limiters - Full Text; Peer Reviewed; Date Published: 20020101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	0
S5	deep-linking N5 advertisement	Limiters - Full Text; Peer Reviewed; Date Published: 20020101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	0
S4	deep-linking advertis*6	Limiters - Full Text; Peer Reviewed; Date Published: 20020101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	0

S3	cross-platform and deep-linking	Limiters - Full Text; Peer Reviewed; Date Published: 20020101-20101231 Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	2
S2	cross-platform and deep-linking	Limiters - Full Text Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	199
S1	travelocity deep-link	Limiters - Full Text Expanders - Apply equivalent subjects; Also search within the full text of the articles Search modes - Find all my search terms	Interface - EBSCO Discovery Service Search Screen - Basic Search Database - Discover NPL	27

Substitute PTO/SB/08A

INFORMATION DISCLOSURE STATEMENT				Application Number	16/265,615
				Filing or 371 (c) Date:	02/01/2019
				First Named Inventor	Narendra Nath
				Group Art Unit	3683
				Examiner Name	Alissa D. Karmis
Sheet	1	of	1	Attorney Docket Number	META1100-11

U.S. PATENT DOCUMENTS

Initials	Cite No.	Document Number Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	A77	20120144281	06-07-2012	Schechter et al.	
	A78	20150186931	07-02-2015	Flake	
	A79	20090112656	04-30-2009	Jung et al.	
	A80	20110213655	09-01-2011	Henkin et al.	
	A81	20180025085	01-25-2018	Sarangi et al.	
	A82	8046259	10-25-2011	Siegel et al.	
	A83	20140100997	04-10-2014	Mayerle et al.	
	A84	20100235220	09-16-2010	Guha et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Number Country Code Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY (Number 43)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear

Examiner Signature	/ALISSA D KARMIS/	Date Considered	05/21/2020

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D.K/

Substitute PTO/SB/08B

INFORMATION DISCLOSURE STATEMENT				Application Number	16/265,615
				Filing or 371 (c) Date:	02/01/2019
				First Named Inventor	Narendra Nath
				Group Art Unit	3683
				Examiner Name	Alissa D. Karmis
Sheet	1	of		Attorney Docket Number	META1100-11

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), 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	T[2]
	C16	Office Action issued for U.S. Patent Application No. 15/672,905, mailed February 18, 2020, 21 pages.	
	C17	Office Action issued for U.S. Patent Application No. 15/678,765, mailed February 18, 2020, 11 pages.	
	C18	Office Action issued for U.S. Patent Application No. 15/687,831, mailed February 19, 2020, 12 pages.	
	C19	Office Action issued for U.S. Patent Application No. 15/706,002, mailed February 19, 2020, 11 pages.	
	C20	Office Action issued for U.S. Patent Application No. 15/724,022, mailed February 19, 2020, 18 pages.	
	C21	Office Action issued for U.S. Patent Application No. 15/789,164, mailed February 19, 2020, 12 pages.	

Examiner Signature	/ALISSA D KARMIS/	Date Considered	05/21/2020

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D.K/

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16265615
Filing Date	2019-02-01
First Named Inventor	Narendra NATH
Art Unit	3684
Examiner Name	KARMIS, ALISSA D.
Attorney Docket Number	M4921.2110 [CAO/sf]

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20080010142	A1	2008-01-10	O'Brien et al.	Entire Document
	2	20190164199	A1	2019-05-30	Nath et al.	Entire Document

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16265615
	Filing Date	2019-02-01
	First Named Inventor	Narendra NATH
	Art Unit	3684
	Examiner Name	KARMIS, ALISSA D.
	Attorney Docket Number	M4921.2110 [CAO/sf]

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature	/ALISSA D KARMIS/	Date Considered	05/21/2020

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D.K/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16265615
	Filing Date	2019-02-01
	First Named Inventor	Narendra NATH
	Art Unit	3684
	Examiner Name	KARMIS, ALISSA D.
	Attorney Docket Number	M4921.2110 [CAO/sf]

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Cecily Anne O'Regan/	Date (YYYY-MM-DD)	2020-05-19
Name/Print	Cecily A O'Regan	Registration Number	37448

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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The information provided by you in this form will be subject to the following routine uses:

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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.

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D.K/

Bibliographic Data

Application No: 16/265,615

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /ALISSA D KARMIS/ Examiner's Signature | Initials

Title: DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
02/01/2019	705	3683	
RULE			

APPLICANTS

MetaRail, Inc., San Mateo, CA,

INVENTORS

Narendra Nath Hillsborough, CA, UNITED STATES

Mallikarjun Hiremani Fremont, CA, UNITED STATES

CONTINUING DATA

This application is a CON of 15463790 03/20/2017 PAT 10262342

15463790 is a CON of 13308004 11/30/2011 PAT 9633378

13308004 has PRO of 61420193 12/06/2010

FOREIGN APPLICATIONS

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02/15/2019

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S3	41	spidering with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2013/12/04 13:32
S4	12	("2010/0293221").URPN.	USPAT	ADJ	ON	2013/12/04 14:06
S5	77	(map$3 or link$3) with (attribute or variable) with multiple with site	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:10
S6	2115	705/14.4.ccls.	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:12
S7	0	S5 and S6	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:12
S8	209	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:14
S9	1	S6 and S8	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:14
S10	1387	((map$3 or link$3) with (attribute or variable or content or field or context or term)) same (multiple with site)	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:17
S11	4	S10 and S6	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:18
S12	926	((map$3 or link$3) with (attribute or variable or content or field or context or term)) same (multiple near3 site)	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:19
S13	1979	((map$3 or link$3 or match$3) with (attribute or variable or content or field or context or term)) same ((multiple or various	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:21

		or several or similar) near3 (site or website or web-site))				
S14	8	S6 and S13	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:21
S15	2671	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) same ((multiple or various or several or similar) near3 (site or website or web-site))	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:25
S16	697	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) near10 ((multiple or various or several or similar) near3 (site or website or web-site))	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:27
S17	331	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) near10 ((multiple or various or several or similar) near3 (site or website or web-site)) and ((ad or advertisement) with link or URL)	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:28
S19	3	("7788245").URPN.	USPAT	ADJ	ON	2013/12/04 14:34
S21	1	("20120030551").PN.	US-PGPUB; USPAT	OR	OFF	2013/12/04 16:31
S23	2	(ad or advertisement) with link$3 with (one or first) with (second or other or another) with (site or website or web-site or webpage or web-page) and (populat$3 with (second or other or another))	US-PGPUB; USPAT	ADJ	ON	2013/12/05 11:18
S24	108	populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 11:22
S25	4	pre-populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 11:23

S27	14	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)) and (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 11:36
S29	8	("7996259").URPN.	USPAT	ADJ	ON	2013/12/05 11:43
S30	1	"5937392".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:46
S31	1	"5960409".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:47
S32	1	"6029141".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:47
S33	1	"6058417".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:51
S34	1	"6330575".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:52
S35	1	"6401075".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:52
S36	1	"6601057".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:52
S37	2	("6061660" | "6334111").PN.	US-PGPUB; USPAT	ADJ	ON	2013/12/05 12:37
S38	66	(ad or advertisement) with (relat$3 or relationship or common or similar) with first with (another or second) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 13:39
S39	5	("20030078832" | "20030229531" | "20040093327" | "20080046429" | "20080059258").PN.	US-PGPUB; USPAT	ADJ	ON	2013/12/05 14:02
S40	2708	(ad or advertisement) with (relat$3 or similar) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 14:13
S41	2599	(ad or advertisement) with (relat$3 or similar) with (webpage or website)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 14:13

S42	4066	(ad or advertisement) with (relat$3 or similar or associat$3) with (webpage or website)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 14:14
S44	0	("2009/0313127").URPN.	USPAT	ADJ	ON	2013/12/05 15:12
S45	676	(ad or advertisement) with (common or alternative) with (keyword or text)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 15:55
S46	171	(ad or advertisement) with (common or alternative) with (keyword or text) with (match$3 or link$3)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 15:55
S47	11	("2002/0107882").URPN.	USPAT	ADJ	ON	2013/12/05 16:17
S48	11	("6092074" | "5630117" | "5708825" | "5745360" | "6651058" | "6581065" | "5634121" | "6546399" | "6122647" | "6654737" | "6658623").PN.	USPAT	ADJ	ON	2013/12/05 16:18
S50	1	("20070239494").PN.	US-PGPUB; USPAT	OR	OFF	2013/12/06 11:31
S51	56	("20020010639" | "20020087367" | "20020169643" | "20030040944" | "5715453" | "20020194037" | "20040030593" | "20050246275" | "20100106623" | "3665397" | "20020133430" | "20060190314" | "20020186144" | "20020087367" | "20020165735" | "20070239494" | "20020077871" | "20070094055" | "20070179819" | "20020010604" | "20020007327" | "20040148179" | "20010034723" | "20020065688" | "20030004761" | "20040006498" | "20040010338" | "5289369" | "6477503" | "20030158761" | "20020198758" | "20030046117" | "20040030593" | "20050216139" | "20050246275" | "6711548" | "20020165735" | "20070198311" | "20070239494" | "20020007327" | "20030061145" | "20040148179" | "20020069093" | "20020184041" | "20100106608" |	US-PGPUB; USPAT	ADJ	ON	2013/12/06 11:33

		"6519576" | "7124096" | "7769601" | "20040107144" | "7617136" | "20050216139" | "20020186144" | "20010056363" | "4965821" | "5253166" | "5389773" | "6360254" | "6539424" | "6757710" | "20030061145" | "20030195811" | "20030195811" | "20070198311" | "20030061146" | "20070027708" | "5066853" | "7050986" | "8108231").PN.				
S54	11	("6092074" | "5630117" | "5708825" | "5745360" | "6651058" | "6581065" | "5634121" | "6546399" | "6122647" | "6654737" | "6658623").PN.	US-PGPUB; USPAT	ADJ	ON	2013/12/06 16:59
S55	6135	(universal or common or general) with (term or variable or text) with (map or database)	US-PGPUB; USPAT	ADJ	ON	2013/12/11 11:43
S58	190	("2005/0222989").URPN.	USPAT	ADJ	ON	2013/12/11 12:04
S59	19	((deep adj link$3) or deep-link$3) with (ad or advertisement) and hover$3	US-PGPUB; USPAT	ADJ	ON	2013/12/11 16:32
S61	53	(select$3 or activat$3 or interact$3) near5 (ad or advertisement) near5 hover$3	US-PGPUB; USPAT	ADJ	ON	2013/12/11 16:40
S62	1278	spidering	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:43
S63	126	(ad or advertisement) with link$3 with (one or first) with (second or other or another) with (site or website or web-site or webpage or web-page)	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:43
S64	27	pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:49
S65	209	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:52

S66	3618	G06Q30/02.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:59
S67	0	G06Q30/0257.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:59
S68	0	G06Q30/0277.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:00
S69	0	G06Q30/0276.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:00
S70	0	G06Q30/0276.CIPS.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:00
S71	1502	G06F17/24.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:01
S72	0	G06F17/30864.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:01
S73	0	G06F17/30864.CIPS.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:01
S74	26673	G06Q30/00.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:01
S75	0	G06Q30/257.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:06
S76	33	((deep adj link$3) or deep-link$3) with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:09
S77	1574	G06Q30/02.CIPP. and ad	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:10

S78	0	G06Q30/02.CIPP. and (deep-link$3 adj (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:10
S79	0	G06Q30/02.CIPP. and (deep-link$3 near5 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S80	0	G06Q30/02.CIPP. and (deep-link$3 near10 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S81	723	G06Q30/02.CIPP. and (link near10 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S82	500	G06Q30/02.CIPP. and (link near3 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S83	69	G06Q30/02.CIPP. and (link near3 (ad or advertisement)) and hover$3	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S84	0	G06F17/30864.CIPP. and ((crawl$3 or spider$3 or extract$3) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:13
S85	0	G0630/00.CIPP. and ((crawl$3 or spider$3 or extract$3) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:14
S86	122355	(map$3 or link$3) with (attribute or variable)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:20
S87	122355	(map$3 or link$3) with (attribute or variable or (programming adj container))	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:35
S88	1	(map$3 or link$3) same (programming adj container)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:35
S89	55	(programming adj container)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:36

S90	346	(program$4 adj container)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:36
S91	4	(programming adj container) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:52
S92	2493	(program$4 near3 (container or variable)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 10:52
S93	2215	(program$4 near3 (container or variable)) and (link$3 or map$4) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 10:53
S94	333	(program$4 adj (container or variable)) and (link$3 or map$4) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 10:53
S95	47	((program$4 adj (container or variable)) same (link$3 or map$4)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 10:53
S96	675	(map$3 or link$3) with (form or field or (site adj map) or header or tag) with multiple with site	US-PGPUB; USPAT	ADJ	ON	2014/06/24 11:02
S97	23	((map$3 or link$3) with (form or field or (site adj map) or header or tag) with multiple with site) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 11:02
S98	12	((map$3 or link$3 or match$3) with (field or (site adj map) or header or tag) with multiple with site) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 11:08
S99	27	("2008/0010142").URPN.	USPAT	ADJ	ON	2014/06/24 12:39
S100	2	("2012/0123859").URPN.	USPAT	ADJ	ON	2014/06/24 12:56
S101	214	indexing near3 (website or (web adj site) or web-site)	USPAT	ADJ	ON	2014/06/24 13:04
S102	75	index$3 near3 (website or (web adj site) or web-site) same (map$4 near3 field or tag or header or (site adj map))	USPAT	ADJ	ON	2014/06/24 13:05

S103	194	index$3 near3 (website or (web adj site) or web-site) same (map$4 near3 field or tag or header or (site adj map))	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:06
S104	194	(index$3 near3 (website or (web adj site) or web-site)) same (map$4 near3 field or tag or header or (site adj map))	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:06
S105	91	(index$3 near3 (website or (web adj site) or web-site)) same (map$4 near3 field or tag or header or (site adj map)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:06
S106	68	(advertising or advertisement) and ((first same second same page same site) same (match$3 or map$3 or link$3) same (travel or destination or from))	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:28
S107	92	(advertising or advertisement) and ((first same second same (page or webpage or (web adj page) or web-page) same (site or website or (web adj site) or web-site)) same (match$3 or map$3 or link$3) same (travel or destination or from))	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:29
S108	1	("20080201220").PN.	US-PGPUB; USPAT	OR	OFF	2014/06/24 16:57
S109	1825	((generat$5 or creat$5) with (ad or advertisment) with (field or category))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:53
S110	996	S109 and ((map or mapping))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:54
S111	355	S110 and ((tavel or plane or airplane or flight) same (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:54
S112	330	S111 and ((click or clicking or hyperlink) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:54
S113	430	((map or mapping) with (ad or advertisement) with (category or field or container))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:57

S114	155	S113 and ((click or clicking or hyperlink) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:57
S115	484	S110 and ((travel or plane or airplane or flight) same (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:16
S116	443	S115 and ((click or clicking or hyperlink) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:16
S117	69	standardiz$3 with (website or web-site or (web adj site)) with (field or form or section)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:19
S118	5	standardiz$3 with (website or web-site or (web adj site)) with (field or form or section) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:20
S119	5	(standardiz$5 or normaliz$5) with (website or web-site or (web adj site)) with (field or form or section) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:20
S120	0	(standardiz$5 or normaliz$5) near5 (website or web-site or (web adj site)) with (field or form or section) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:21
S121	34	(standardiz$5 or normaliz$5) near5 (website or web-site or (web adj site)) with (field or form or section)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:21
S122	11	("6851087").URPN.	USPAT	ADJ	ON	2014/06/29 23:23
S123	2	(standardiz$5 or normaliz$5) near5 (field or form or section) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:34
S124	3	(standardiz$5 or normaliz$5) near5 (field or form or section or tag or header or (site adj map)) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:35
S125	4	(similar or similarities) near5 (field or form or section or tag or header or (site adj map))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:37

		same (multiple adj (website or web-site or (web adj site)))				
S126	4	((similar or similarities) near5 (field or form or section or tag or header or (site adj map))) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:38
S127	10037	similar near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:47
S128	102	similar near3 (field or section) near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:47
S129	47	similar near3 (field or section) near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:48
S130	11	("6851087").URPN.	USPAT	ADJ	ON	2014/06/30 01:00
S131	30	common near3 (field or section) near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 01:19
S132	8	("7865414").URPN.	USPAT	ADJ	ON	2014/06/30 01:25
S133	11118	(advertising or advertisement) near5 (match$3 or map$4)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 02:58
S134	256	(advertising or advertisement) near5 (match$3 or map$4) near5 (field or (search adj box) or header or title or container or box)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 02:59
S135	100	S134 and "705".clas.	US-PGPUB; USPAT	ADJ	ON	2014/06/30 03:01
S136	24	(deep-link$3 or (deep adj link$3)) near3 (ad or advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:29

S137	19	(deep-link$3 or (deep adj link$3)) near3 (ad or advertisement or advertising) and (match$3 or mapping)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:29
S138	25	(deep-link$3 or (deep adj link$3)) near10 (ad or advertisement or advertising) and (match$3 or mapping)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:32
S139	36	(deep-link$3 or (deep adj link$3)) near10 (ad or advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:35
S140	19963	(ad or advertisement or advertising) near5 link	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:45
S141	15598	(ad or advertisement or advertising) near3 link	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:45
S142	73	(ad or advertisement or advertising) near3 link same (similar near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 06:55
S143	21	(ad or advertisement or advertising) near3 link with (similar near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 06:55
S144	39	(ad or advertisement or advertising) near10 link with (similar near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:08
S145	403	(ad or advertisement or advertising) near10 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:08
S146	243	(ad or advertisement or advertising) near5 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:08
S147	175	(ad or advertisement or advertising) near5 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page)) and (map$4 or match$3)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:10

S148	23	(ad or advertisement or advertising) near5 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page)) same (map$4 or match$3)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:10
S149	1	("20090144124").PN.	US-PGPUB; USPAT	OR	OFF	2014/06/30 11:45
S150	0	advertis$5 with based with (website or web-site or (web adj site) or (web adj page)) with (field near3 (name or description or identifier)) with mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:29
S151	0	advertis$5 with based with (website or web-site or (web adj site) or (web adj page)) with (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:29
S152	0	advertis$5 with based with (website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S153	0	advertis$5 with based same (website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S154	0	advertis$5 same based same (website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S155	0	advertis$5 same based same (webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S156	164	(webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S157	0	(webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping same advertis$5	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:31

S158	62	(webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping and advertis$5	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:31
S159	82	(webpage or website or web-site or (web adj site) or (web adj page)) with map$4 with (field near3 (name or description or identifier))	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:37
S160	73	S159 not S158	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:38
S161	1	("20100312667").PN.	US-PGPUB; USPAT	OR	OFF	2014/10/07 13:00
S162	2184	mapping with (field near3 (label or tag or identifier or name))	US-PGPUB; USPAT	ADJ	ON	2014/10/07 14:55
S163	9	mapping with (field near3 (label or tag or identifier or name)) and (match$3 near5 advertis$5)	US-PGPUB; USPAT	ADJ	ON	2014/10/07 14:55
S164	8	("20080120305" | "6847967" | "6895551" | "20110258535" | "20020156799" | "20110093773" | "6601066" | "20110119220" | "6601066" | "6847967").PN.	US-PGPUB; USPAT	ADJ	ON	2015/02/17 10:47
S165	171	map$4 near5 field near5 ((web adj site) or website or webpage or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/02/17 11:04
S166	13	map$4 near5 label near5 ((web adj site) or website or webpage or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/02/17 11:25
S167	3319	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:32
S168	2975	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and (link$3 or hyperlink)	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:37

S169	1285	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and (link$3 or hyperlink) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:38
S170	958	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and ((link$3 or hyperlink) same (field or label)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:40
S171	490	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and ((link$3 or hyperlink) same (field or label)) and (populat$3 or pre-populat$3) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:42
S172	39	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and ((link$3 or hyperlink) same (field or label)) and (populat$3 or pre-populat$3) and (advertisement or advertising) and vertical and heuristic	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:45
S173	96	("5905862").URPN.	USPAT	ADJ	ON	2015/02/18 16:43
S174	8669	(match$3 or map$4) near5 (field near3 (identifier or name or ID))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:03
S175	697	(match$3 or map$4) near5 (field near3 (identifier or name or ID)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:04
S176	243	(match$3 or map$4) near5 (field near3 (identifier or name or ID)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site))) and advertising	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:05
S177	309	(match$3 or map$4) near5 (field near3 (identifier or name or ID or defin$5)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site))) and advertising	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:14
S178	800	semantic adj map$4	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:19

S179	4	semantic adj map$4 and (field adj (identifier or ID))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:19
S180	0	("2011/0016228").URPN.	USPAT	ADJ	ON	2015/04/24 09:28
S181	10	semantic adj map$4 and (field adj (identifier or ID or descript$3))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:30
S182	2	semantic adj map$4 adj dictionary and (field adj (identifier or ID or descript$3))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:36
S183	2	semantic adj map$4 adj dictionary	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:37
S184	0	semantic adj map$4 and map$4 near4 data near4 field near4 (descrip$3 or identifier or definition)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:38
S185	7	semantic adj map$4 and map$4 with data with field with (descrip$3 or identifier or definition)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:38
S186	0	advertising with using with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 10:11
S187	3	(advertising or advertisement or (deep near3 ad)) with (us$3 or based) with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 10:12
S188	3	(advertising or advertisement or ad) with (us$3 or based) with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 10:14
S189	17	(advertising or advertisement or ad) same (us$3 or based) with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 10:15
S190	52	("2010/0063880").URPN.	USPAT	ADJ	ON	2015/04/24 10:16
S191	439	map$4 same (field adj identifier)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:13

S192	3	map$4 same (field adj identifier) and (link$3 near3 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:13
S193	73	map$4 same (field near4 identifier) and (link$3 near3 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:13
S194	666	map$4 same (field near4 identifier) and (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:15
S195	190	map$4 same (field near4 identifier) and ((ad or advertisement) same identifier)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:15
S196	281	map$4 same (field near4 (ID or identifier)) and ((ad or advertisement) same identifier)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:17
S197	342	map$4 same (field near4 (ID or identifier or name)) and ((ad or advertisement) same (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:18
S198	52	map$4 near10 (field near4 (ID or identifier or name)) and ((ad or advertisement) near20 (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:18
S199	1	("6490601").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 18:21
S200	128	map$4 same (field near4 (ID or identifier or name)) and ((ad or advertisement) near20 (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:23
S201	128	map$4 same (field near4 (ID or identifier or names)) and ((ad or advertisement) near20 (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:23
S202	932	map$4 same (field near4 (ID or identifier or names)) and ((ad or advertisement) same link$3)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:24
S203	1	("20050144048").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 18:29

S204	337	("20010011250" | "5537586" | "5987440" | "6192380" | "6199079" | "6327598" | "6345278").PN. OR ("6490601").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2015/06/22 23:08
S205	113	(ad or advertis$5) same (semantic adj (match$3 or map$4))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 23:31
S206	1	("20110016228").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 23:38
S207	1	("20100070448").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 23:39
S208	1	("20100063880").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 23:43
S209	2	("6718551" | "7752642").PN.	US-PGPUB; USPAT	ADJ	ON	2015/06/22 23:47
S210	12	(webpage or (web adj page)) near3 content with (field adj name)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 23:51
S211	15	(webpage or (web adj page) or website or (web adj site)) near3 content with (field adj name)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 23:53
S212	16	(map$3 or link$3 or match$3) same (common or universal or global) same (field near3 (name or identifier or label)) same (plurality or multiple) near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:06
S213	23	(map$3 or link$3 or match$3) same (common or universal or global or standard) same (field near3 (name or identifier or label)) same (plurality or multiple) near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:06

S214	3178	(map$3 or link$3 or match$3) near5 similar near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:10
S215	4035	(map$3 or link$3 or match$3 or connect$3) near5 similar near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:10
S216	10	(map$3 or link$3 or match$3 or connect$3) near5 similar near5 field near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:11
S217	104	(map$3 or link$3 or match$3 or connect$3) near5 similar near5 (website or site or (web adj site) or webpage or page or (web adj page)) and (map$3 or link$3 or match$3 or connect$3) near5 ((field near3 (name or label or identifier)) or (data adj label))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:14
S218	18	("2009/0024718").URPN.	USPAT	ADJ	ON	2015/06/23 00:29
S219	7	deep-link$3 near3 (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2015/06/23 01:44
S221	44	((deep adj link$3) or deep-link$3) with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2015/06/23 01:45
S222	8	deep-link$3 with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2015/06/23 14:57
S223	2217	map$3 with field with identifier	US-PGPUB; USPAT	OR	ON	2015/10/16 16:37
S224	1296	map$3 with field near5 identifier	US-PGPUB; USPAT	OR	ON	2015/10/16 16:38
S225	697	map$3 near5 field near5 identifier	US-PGPUB; USPAT	OR	ON	2015/10/16 16:38

S226	24	map$3 near5 field near5 identifier and heuristic	US-PGPUB; USPAT	OR	ON	2015/10/16 16:38
S227	1	("6363376").PN.	US-PGPUB; USPAT	OR	OFF	2015/10/16 16:39
S228	1	("20090164581").PN.	US-PGPUB; USPAT	OR	OFF	2015/10/16 16:39
S229	1	("20020186255").PN.	US-PGPUB; USPAT	OR	OFF	2015/10/16 16:39
S230	1	("20040243520").PN.	US-PGPUB; USPAT	OR	OFF	2015/10/16 16:39
S231	5	(US-20020186255-$ or US-20040243520-$ or US-20090164581-$).did. or (US-7216292-$ or US-6363376-$).did.	US-PGPUB; USPAT	OR	ON	2015/10/16 16:41
S232	1	S231 and map$5 with field with identifier	US-PGPUB; USPAT	OR	ON	2015/10/16 16:41
S233	3	S231 and map$5 with field with (name or identifier)	US-PGPUB; USPAT	OR	ON	2015/10/16 16:42
S234	3	S231 and map$5 with field with (name or identifier) same (webpage or (web adj page) or website or (web adj site))	US-PGPUB; USPAT	OR	ON	2015/10/16 16:48
S235	279	map$5 with field with (name or identifier) same (webpage or (web adj page) or website or (web adj site))	US-PGPUB; USPAT	OR	ON	2015/10/16 16:48
S236	5	(("7216292") or ("20040243520") or ("20090164581") or ("20070250520") or ("20110016228")).PN.	US-PGPUB; USPAT	OR	OFF	2016/08/12 12:58
S237	12	(ad or advertis$5) near5 second near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site)) with based with first near5 (page or webpage or web-page or (web adj page) or	US-PGPUB; USPAT	OR	ON	2016/08/12 15:10

		site or website or web-site or (web adj site)) near5 (interaction or click$3 or hover$3 or select$3)				
S238	3244	(ad or advertis$5) near5 related near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site))	US-PGPUB; USPAT	OR	ON	2016/08/12 16:13
S239	322	(select$3 or plac$3) near3 (ad or advertis$5) near5 related near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site))	US-PGPUB; USPAT	OR	ON	2016/08/12 16:14
S242	5996	match$3 with field near (identifier or ID or name)	US-PGPUB; USPAT	OR	ON	2016/08/15 14:01
S246	2	match$3 with field near3 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:05
S247	2	match$3 with field near5 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:05
S248	7	(map$4 or match$3 or similar) with field near5 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:06
S249	8	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:17
S250	8	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name) with (bewteen or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:20
S251	57	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name) with (between or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:20
S252	61	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name or label) with (between or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/16 13:22

S253	5891	(find$3 or search$3) near5 related near5 web$6	US-PGPUB; USPAT	OR	ON	2016/08/16 17:12
S254	105	(find$3 or search$3) near5 related near5 web$6 and determin$5 near5 web$6 near5 similar	US-PGPUB; USPAT	OR	ON	2016/08/16 17:14
S255	6	(find$3 or search$3) near5 related near5 web$6 and determin$5 near5 web$6 near5 similar and (tag or metatag) and (header or (site adj map))	US-PGPUB; USPAT	OR	ON	2016/08/16 17:15
S256	19990	vertical same horizontal same web$6	US-PGPUB; USPAT	OR	ON	2016/08/16 17:18
S257	274	vertical same horizontal same web$6 same (categor$7 or classif$7)	US-PGPUB; USPAT	OR	ON	2016/08/16 17:18
S258	94	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3)	US-PGPUB; USPAT	OR	ON	2016/08/16 17:19
S259	82	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map))	US-PGPUB; USPAT	OR	ON	2016/08/16 17:19
S260	92	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map) or field or drop$4)	US-PGPUB; USPAT	OR	ON	2016/08/16 17:39
S261	45	sister near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/16 17:46
S262	17	pre-populat$3 near3 (field or form) with value with web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 10:15
S263	0	("2006/0212434").URPN.	USPAT	OR	ON	2016/08/17 10:32
S264	2	("5960411" | "6976090").PN.	USPAT	OR	ON	2016/08/17 10:33

S265	310	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) with web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 10:37
S266	13	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) and (pass$3 or transfer$4) near5 (value or parameter or attribute) near5 web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 11:20
S267	13	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) and (exchang$3 or pass$3 or transfer$4) near5 (value or parameter or attribute) near5 web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 11:20
S268	40	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) and (exchang$3 or pass$3 or transfer$4 or transmi$5) near5 (value or parameter or attribute) near5 web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 11:20
S269	1602	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5	US-PGPUB; USPAT	ADJ	ON	2016/08/17 14:15
S270	695	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner	US-PGPUB; USPAT	ADJ	ON	2016/08/17 14:20
S271	321	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner and (chang$3 or modif$7) near3 (content or object or display)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 14:21
S272	101	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner and (chang$3 or modif$7) near3 (content or object or display) and hover$3	US-PGPUB; USPAT	ADJ	ON	2016/08/17 14:23
S273	14	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner and (chang$3 or modif$7) near3 (content or object or display) near5 advertis$5 and hover$3	US-PGPUB; USPAT	ADJ	ON	2016/08/17 15:11
S274	20	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and (chang$3 or modif$7) near3 (content or	US-PGPUB; USPAT	ADJ	ON	2016/08/17 15:12

		object or display) near5 advertis$5 and hover$3				
S275	17	(dynamic$4 or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and (chang$3 or modif$7) near3 (content or object or display) near5 advertis$5 with user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 15:25
S276	203	(dynamic$4 or real-time) near5 advertis$5 and (chang$3 or modif$7) near5 advertis$5 with user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 15:31
S277	8631	advertis$5 with based with user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:15
S278	6737	advertis$5 with based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:15
S279	5179	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:15
S280	0	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web%6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:17
S281	555	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:17
S282	261	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web$6 and related near3 web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:18
S283	5	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web$6 and related near3 web$6 near5 link$3	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:19
S284	28	advertis$5 near5 based near5 user near5 web$6 near5 link$3	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:22

S285	392	link$3 with related with (web$6 or site or page) with together	US-PGPUB; USPAT	ADJ	ON	2016/08/18 08:57
S286	45	link$3 with related with (web$6 or site or page) with together and (crawl$3 or spider$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 08:57
S287	12	advertiser with search$3 with publisher with similar$5 with (content or product or service or categor$3 or horizontal or vertical)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:05
S288	7	advertiser near5 (locat$3 or find$3 or choos$3 or search$3) near5 (host or (third adj part$3) or publisher) with similar$5 near5(content or product or service or categor$3 or horizontal or vertical)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:06
S289	1	search engine optimization tag	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:21
S290	1	(search adj engine) with (optimization adj tag)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:22
S291	46	(search adj engine adj tag)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:22
S292	4	(search adj box adj tag)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:08
S293	7	pars$3 near10 (name or title) near10 (search$3 near3 box)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:41
S294	36	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 (search$3 near3 box)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:45
S295	189	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 ((search$3 near3 box) or (form near3 field))	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:46

S296	56	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 ((search$3 near3 box) or (form near3 field)) and advertis$5	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:47
S297	221	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 ((search$3 near3 box) or ((entry or input or form or submission) near3 (form or field))) and advertis$5	US-PGPUB; USPAT	ADJ	ON	2016/08/18 11:12
S298	5	(US-20020023108-$ or US-20010054046-$ or US-20010037361-$ or US-20050209874-$ or US-20060212434-$).did.	US-PGPUB	OR	ON	2016/08/22 16:43
S299	6	(US-20020023108-$ or US-20010054046-$ or US-20010037361-$ or US-20050209874-$ or US-20060212434-$ or US-20040088713-$).did.	US-PGPUB	OR	ON	2016/08/22 16:44
S300	42244	(related or similar) near3 web$6	US-PGPUB	OR	ON	2016/08/22 16:48
S301	3087	(related or similar) near3 web$6 near5 (link$3 or index$3)	US-PGPUB	OR	ON	2016/08/22 16:48
S302	1673	(related or similar) near3 web$6 near5 (link$3 or index$3) and advertis$5	US-PGPUB	OR	ON	2016/08/22 16:48
S303	329	(related or similar) near3 web$6 near5 (link$3 or index$3) same advertis$5	US-PGPUB	OR	ON	2016/08/22 16:48
S304	480	(related or similar) near3 web$6 near5 (link$3 or index$3) same advertis$5	US-PGPUB; USPAT	OR	ON	2016/08/22 16:49
S305	140	content near3 (related or similar) near3 web$6 near5 (link$3 or index$3) same advertis$5	US-PGPUB; USPAT	OR	ON	2016/08/22 16:50
S307	16	web$6 with match$3 with (field or form) with (another or other) with web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:21
S308	224	web$6 with (map$4 or link$3) with (field or box) with (another or other or similar) with web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:23

S309	407	web$6 with (map$4 or link$3 or associat$3 or correlat$3) with (field or box) with (another or other or similar) with web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:27
S310	44	web$6 near3 (map$4 or link$3 or associat$3 or correlat$3) near10 (field or box) near10 (another or other or similar) near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:27
S311	0	sav$3 near5 similarit$3 near3 between near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:41
S312	11	stor$3 near5 similarit$3 near3 between near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:41
S313	12	(extract$3 or find$3) near5 similarit$3 near3 between near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:51
S314	16	(extract$3 or find$3) near5 similarit$3 near3 (among$2 or between) near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:57
S315	15	"8234134"	US-PGPUB; USPAT	OR	ON	2016/08/22 19:16
S316	12	705/14.73.CCLS. and (deep near5 link$3)	US-PGPUB; USPAT	OR	ON	2017/02/22 10:41
S317	156	705/14.73.CCLS. and (map$4 near10 (variable or field or form))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:44
S318	101	705/14.73.CCLS. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:45
S319	315	G06Q30/0277.CPC. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:51
S320	0	G06Q30/0277.CPC. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and ((pre-populat$3 or prepopulat$3) near10 (field or form))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:52

S321	24	705/14.51.CCLS. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:54
S322	11	705/14.51.CCLS. and (deep near5 link$3)	US-PGPUB; USPAT	OR	ON	2017/02/22 10:54
S323	67	(deep near5 link$3) near10 advertis$5	US-PGPUB; USPAT; EPO; JPO	OR	ON	2017/02/22 10:59
S324	15129	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2017/02/22 11:00
S325	322	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2017/02/22 11:01
S326	2	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and ((pre-populat$3 or prepopulat$3) near10 (field or form or value))	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2017/02/22 11:02
S327	73	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2017/02/22 11:02
S328	1	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	EPO; JPO	OR	ON	2017/02/22 11:04
S329	0	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	EPO; JPO	ADJ	ON	2017/02/22 11:06
S330	1	(deep near5 link$3) near10 advertis$5	EPO; JPO	OR	ON	2017/02/22 11:06

S331	1	("6662340").PN.	US-PGPUB; USPAT	OR	OFF	2017/02/22 13:00
S337	1	(deep near5 link$3) near10 advertis$5	FPRS; EPO; JPO	OR	ON	2017/02/22 13:15
S338	0	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:15
S339	13	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:15
S340	23	((map$3 or link$3) with (attribute or variable or field)) same (multiple with site)	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:17
S341	3	((map$3 or link$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site)) and advertis$5	EPO; JPO	ADJ	ON	2017/02/22 13:20
S342	13	((map$3 or link$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site)) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:20
S343	21	((map$3 or link$3 or match$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site)) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:22
S344	25	((map$3 or link$3 or match$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site or page)) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:25
S345	4	S344 not S343	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:26
S346	0	map$4 near10 (webpage or website) near10 (field or form) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:27
S347	1	map$4 near10 (webpage or website or web or site or page) near10 (field or form) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:28

S348	45	(match$3 or link$4 or map$4) near10 (webpage or website or web or site or page) near10 (field or form) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:28
S374	10	pre-populat$3 near5 (field or value) near5 (online or web$5)	FPRS; EPO; JPO	OR	ON	2017/02/28 08:58
S375	33	(automatic$4 near5 (fill$3 or pre-fill$3 or populat$3 or pre-populat$3)) near5 (field or value) near5 (online or web$5)	FPRS; EPO; JPO	OR	ON	2017/02/28 09:00
S376	62	mapping with field with name with standard	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2017/10/01 21:42
S377	4	mapping with field with name with standard and (spider$3 or crawl$3 or push$3) with (web$5 or internet)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2017/10/01 23:07
S378	26	mapping same field same name same standard and (spider$3 or crawl$3 or push$3) with (web$5 or internet)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2017/10/01 23:20
S379	62	mapping with field with name with standard	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2017/10/01 23:21
S380	377	deep near3 (ad or advertis$6)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:25

S381	259	deep near3 (ad or advertis$6) and link$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:25
S382	58	deep near3 (ad or advertis$6) with link$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:25
S383	2293	universal near3 variable	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:30
S384	61	universal near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:30
S385	571	(standard or common) near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:31
S386	788	(standard$4 or common or normal$4) near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:31
S387	95	(standard$4 or common or normal$4) near3 variable near5 table and similar near3 (variable or name or value)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:32

S388	379	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/05/24 11:35
S389	306	populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/05/24 11:36
S390	34	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)) and (ad or advertisement)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/05/24 11:36
S391	785	((map or mapping) with (ad or advertisement) with (category or field or container))	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/05/24 11:39
S392	101	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map) or field or drop$4)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:39
S393	13740	G06Q30/0277.CPC.	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:42
S394	91	G06Q30/0277.CPC. and deep$ with advertis$6	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:44

S395	67	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:44
S396	4	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:45
S397	210	G06Q30/0277.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:46
S398	59	G06Q30/0276.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:47
S399	63	G06N5/04.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:48
S400	364	G06F17/30864.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:49
S401	377	deep near3 (ad or advertis$6)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50

S402	259	deep near3 (ad or advertis$6) and link$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S403	58	deep near3 (ad or advertis$6) with link$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S404	2293	universal near3 variable	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S405	61	universal near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S406	571	(standard or common) near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S407	788	(standard$4 or common or normal$4) near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S408	95	(standard$4 or common or normal$4) near3 variable near5 table and similar near3 (variable or name or value)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50

S409	379	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/05/24 11:50
S410	306	populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/05/24 11:50
S411	34	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)) and (ad or advertisement)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/05/24 11:50
S412	785	((map or mapping) with (ad or advertisement) with (category or field or container))	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/05/24 11:50
S413	101	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map) or field or drop$4)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S414	13740	G06Q30/0277.CPC.	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S415	91	G06Q30/0277.CPC. and deep$ with advertis$6	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50

S416	67	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S417	4	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S418	210	G06Q30/0277.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S419	59	G06Q30/0276.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S420	63	G06N5/04.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S421	364	G06F17/30864.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/05/24 11:50
S422	1021	((map$3 or link$3) with (attribute or variable or field or parameter)) same (multiple with web$5)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/05/24 12:00

S462	1	("6851087").PN.	US-PGPUB; USPAT	OR	OFF	2018/09/27 18:20
S463	1	("6662340").PN.	US-PGPUB; USPAT	OR	OFF	2018/09/27 18:26
S464	1	("20040107201").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 10:46
S465	65	spidering with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S466	50	("2010/0293221").URPN.	USPAT	ADJ	ON	2018/12/18 11:38
S467	154	(map$3 or link$3) with (attribute or variable) with multiple with site	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S468	2620	705/14.4.ccls.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S469	0	S467 and S468	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S470	384	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S471	1	S468 and S470	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S472	2476	((map$3 or link$3) with (attribute or variable or content or field or context or term)) same (multiple with site)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S473	7	S472 and S468	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38

S474	1491	((map$3 or link$3) with (attribute or variable or content or field or context or term)) same (multiple near3 site)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S475	3273	((map$3 or link$3 or match$3) with (attribute or variable or content or field or context or term)) same ((multiple or various or several or similar) near3 (site or website or web-site))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S476	14	S468 and S475	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S477	4360	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) same ((multiple or various or several or similar) near3 (site or website or web-site))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S478	1152	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) near10 ((multiple or various or several or similar) near3 (site or website or web-site))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S479	573	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) near10 ((multiple or various or several or similar) near3 (site or website or web-site)) and ((ad or advertisement) with link or URL)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S480	16	("7788245").URPN.	USPAT	ADJ	ON	2018/12/18 11:38
S481	1	("20120030551").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:38
S482	5	(ad or advertisement) with link$3 with (one or first) with (second or other or another) with (site or website or web-site or webpage or web-page) and (populat$3 with (second or other or another))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S483	314	populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38

S484	8	pre-populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S485	36	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)) and (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S486	31	("7996259").URPN.	USPAT	ADJ	ON	2018/12/18 11:38
S487	1	"5937392".PN.	USPAT; USOCR	ADJ	ON	2018/12/18 11:38
S488	1	"5960409".PN.	USPAT; USOCR	ADJ	ON	2018/12/18 11:38
S489	1	"6029141".PN.	USPAT; USOCR	ADJ	ON	2018/12/18 11:38
S490	1	"6058417".PN.	USPAT; USOCR	ADJ	ON	2018/12/18 11:38
S491	1	"6330575".PN.	USPAT; USOCR	ADJ	ON	2018/12/18 11:38
S492	1	"6401075".PN.	USPAT; USOCR	ADJ	ON	2018/12/18 11:38
S493	1	"6601057".PN.	USPAT; USOCR	ADJ	ON	2018/12/18 11:38
S494	2	("6061660" | "6334111").PN.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S495	133	(ad or advertisement) with (relat$3 or relationship or common or similar) with first with (another or second) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:38
S496	5	("20030078832" | "20030229531" | "20040093327" | "20080046429" | "20080059258").PN.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S497	5654	(ad or advertisement) with (relat$3 or similar) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39

S498	5506	(ad or advertisement) with (relat$3 or similar) with (webpage or website)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S499	8700	(ad or advertisement) with (relat$3 or similar or associat$3) with (webpage or website)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S500	5	("2009/0313127").URPN.	USPAT	ADJ	ON	2018/12/18 11:39
S501	1109	(ad or advertisement) with (common or alternative) with (keyword or text)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S502	321	(ad or advertisement) with (common or alternative) with (keyword or text) with (match$3 or link$3)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S503	25	("2002/0107882").URPN.	USPAT	ADJ	ON	2018/12/18 11:39
S504	11	("6092074" | "5630117" | "5708825" | "5745360" | "6651058" | "6581065" | "5634121" | "6546399" | "6122647" | "6654737" | "6658623").PN.	USPAT	ADJ	ON	2018/12/18 11:39
S505	1	("20070239494").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:39
S506	56	("20020010639" | "20020087367" | "20020169643" | "20030040944" | "5715453" | "20020194037" | "20040030593" | "20050246275" | "20100106623" | "3665397" | "20020133430" | "20060190314" | "20020186144" | "20020087367" | "20020165735" | "20070239494" | "20020077871" | "20070094055" | "20070179819" | "20020010604" | "20020007327" | "20040148179" | "20010034723" | "20020065688" | "20030004761" | "20040006498" | "20040010338" | "5289369" | "6477503" | "20030158761" | "20020198758" | "20030046117" | "20040030593" | "20050216139" | "20050246275" | "6711548" | "20020165735" |	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39

		"20070198311" | "20070239494" | "20020007327" | "20030061145" | "20040148179" | "20020069093" | "20020184041" | "20100106608" | "6519576" | "7124096" | "7769601" | "20040107144" | "7617136" | "20050216139" | "20020186144" | "20010056363" | "4965821" | "5253166" | "5389773" | "6360254" | "6539424" | "6757710" | "20030061145" | "20030195811" | "20030195811" | "20070198311" | "20030061146" | "20070027708" | "5066853" | "7050986" | "8108231").PN.				
S507	11	("6092074" | "5630117" | "5708825" | "5745360" | "6651058" | "6581065" | "5634121" | "6546399" | "6122647" | "6654737" | "6658623").PN.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S508	10105	(universal or common or general) with (term or variable or text) with (map or database)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S509	356	("2005/0222989").URPN.	USPAT	ADJ	ON	2018/12/18 11:39
S510	36	((deep adj link$3) or deep-link$3) with (ad or advertisement) and hover$3	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S511	115	(select$3 or activat$3 or interact$3) near5 (ad or advertisement) near5 hover$3	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S512	1943	spidering	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S513	260	(ad or advertisement) with link$3 with (one or first) with (second or other or another) with (site or website or web-site or webpage or web-page)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S514	74	pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39

S515	384	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S516	17920	G06Q30/02.CIPP.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S517	0	G06Q30/0257.CIPP.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S518	0	G06Q30/0277.CIPP.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S519	0	G06Q30/0276.CIPP.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S520	0	G06Q30/0276.CIPS.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S521	3785	G06F17/24.CIPP.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S522	0	G06F17/30864.CIPP.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S523	0	G06F17/30864.CIPS.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S524	31856	G06Q30/00.CIPP.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S525	0	G06Q30/257.CIPP.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S526	145	((deep adj link$3) or deep-link$3) with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39

S527	7249	G06Q30/02.CIPP. and ad	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S528	3	G06Q30/02.CIPP. and (deep-link$3 adj (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S529	6	G06Q30/02.CIPP. and (deep-link$3 near5 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S530	6	G06Q30/02.CIPP. and (deep-link$3 near10 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S531	2841	G06Q30/02.CIPP. and (link near10 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S532	1942	G06Q30/02.CIPP. and (link near3 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S533	198	G06Q30/02.CIPP. and (link near3 (ad or advertisement)) and hover$3	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S534	0	G06F17/30864.CIPP. and ((crawl$3 or spider$3 or extract$3) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S535	0	G0630/00.CIPP. and ((crawl$3 or spider$3 or extract$3) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S536	184562	(map$3 or link$3) with (attribute or variable)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S537	184562	(map$3 or link$3) with (attribute or variable or (programming adj container))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S538	4	(map$3 or link$3) same (programming adj container)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39

S539	85	(programming adj container)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S540	553	(program$4 adj container)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S541	8	(programming adj container) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S542	3467	(program$4 near3 (container or variable)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S543	3070	(program$4 near3 (container or variable)) and (link$3 or map$4) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S544	494	(program$4 adj (container or variable)) and (link$3 or map$4) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S545	73	((program$4 adj (container or variable)) same (link$3 or map$4)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S546	916	(map$3 or link$3) with (form or field or (site adj map) or header or tag) with multiple with site	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S547	43	((map$3 or link$3) with (form or field or (site adj map) or header or tag) with multiple with site) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S548	26	((map$3 or link$3 or match$3) with (field or (site adj map) or header or tag) with multiple with site) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S549	42	("2008/0010142").URPN.	USPAT	ADJ	ON	2018/12/18 11:39
S550	8	("2012/0123859").URPN.	USPAT	ADJ	ON	2018/12/18 11:39
S551	473	indexing near3 (website or (web adj site) or web-site)	USPAT	ADJ	ON	2018/12/18 11:39

S552	110	index$3 near3 (website or (web adj site) or web-site) same (map$4 near3 field or tag or header or (site adj map))	USPAT	ADJ	ON	2018/12/18 11:39
S553	276	index$3 near3 (website or (web adj site) or web-site) same (map$4 near3 field or tag or header or (site adj map))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S554	276	(index$3 near3 (website or (web adj site) or web-site)) same (map$4 near3 field or tag or header or (site adj map))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S555	125	(index$3 near3 (website or (web adj site) or web-site)) same (map$4 near3 field or tag or header or (site adj map)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S556	126	(advertising or advertisement) and ((first same second same page same site) same (match$3 or map$3 or link$3) same (travel or destination or from))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S557	183	(advertising or advertisement) and ((first same second same (page or webpage or (web adj page) or web-page) same (site or website or (web adj site) or web-site)) same (match$3 or map$3 or link$3) same (travel or destination or from))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S558	1	("20080201220").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:39
S559	2980	((generat$5 or creat$5) with (ad or advertisment) with (field or category))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S560	1457	S559 and ((map or mapping))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S561	481	S560 and ((tavel or plane or airplane or flight) same (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S562	440	S561 and ((click or clicking or hyperlink) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39

S563	787	((map or mapping) with (ad or advertisement) with (category or field or container))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S564	284	S563 and ((click or clicking or hyperlink) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S565	655	S560 and ((travel or plane or airplane or flight) same (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S566	587	S565 and ((click or clicking or hyperlink) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S567	121	standardiz$3 with (website or web-site or (web adj site)) with (field or form or section)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S568	6	standardiz$3 with (website or web-site or (web adj site)) with (field or form or section) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S569	7	(standardiz$5 or normaliz$5) with (website or web-site or (web adj site)) with (field or form or section) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S570	0	(standardiz$5 or normaliz$5) near5 (website or web-site or (web adj site)) with (field or form or section) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S571	47	(standardiz$5 or normaliz$5) near5 (website or web-site or (web adj site)) with (field or form or section)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S572	20	("6851087").URPN.	USPAT	ADJ	ON	2018/12/18 11:39
S573	3	(standardiz$5 or normaliz$5) near5 (field or form or section) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S574	4	(standardiz$5 or normaliz$5) near5 (field or form or section or tag or header or (site adj map)) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39

S575	9	(similar or similarities) near5 (field or form or section or tag or header or (site adj map)) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S576	9	((similar or similarities) near5 (field or form or section or tag or header or (site adj map))) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S577	15546	similar near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S578	156	similar near3 (field or section) near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S579	65	similar near3 (field or section) near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:39
S580	20	("6851087").URPN.	USPAT	ADJ	ON	2018/12/18 11:39
S581	35	common near3 (field or section) near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S582	88	("7865414").URPN.	USPAT	ADJ	ON	2018/12/18 11:40
S583	18051	(advertising or advertisement) near5 (match$3 or map$4)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S584	346	(advertising or advertisement) near5 (match$3 or map$4) near5 (field or (search adj box) or header or title or container or box)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S585	115	S584 and "705".clas.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40

S586	60	(deep-link$3 or (deep adj link$3)) near3 (ad or advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S587	48	(deep-link$3 or (deep adj link$3)) near3 (ad or advertisement or advertising) and (match$3 or mapping)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S588	112	(deep-link$3 or (deep adj link$3)) near10 (ad or advertisement or advertising) and (match$3 or mapping)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S589	139	(deep-link$3 or (deep adj link$3)) near10 (ad or advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S590	31388	(ad or advertisement or advertising) near5 link	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S591	24686	(ad or advertisement or advertising) near3 link	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S592	97	(ad or advertisement or advertising) near3 link same (similar near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S593	24	(ad or advertisement or advertising) near3 link with (similar near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S594	51	(ad or advertisement or advertising) near10 link with (similar near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S595	571	(ad or advertisement or advertising) near10 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S596	363	(ad or advertisement or advertising) near5 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S597	277	(ad or advertisement or advertising) near5 link with ((similar or common or related) near5 (website or site or web-site or	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40

		webpage or web-page)) and (map$4 or match$3)				
S598	40	(ad or advertisement or advertising) near5 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page)) same (map$4 or match$3)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S599	1	("20090144124").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:40
S600	0	advertis$5 with based with (website or web-site or (web adj site) or (web adj page)) with (field near3 (name or description or identifier)) with mapping	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S601	0	advertis$5 with based with (website or web-site or (web adj site) or (web adj page)) with (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S602	0	advertis$5 with based with (website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S603	3	advertis$5 with based same (website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S604	3	advertis$5 same based same (website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S605	3	advertis$5 same based same (webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S606	235	(webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40

S607	3	(webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping same advertis$5	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S608	88	(webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping and advertis$5	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S609	116	(webpage or website or web-site or (web adj site) or (web adj page)) with map$4 with (field near3 (name or description or identifier))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S610	103	S609 not S608	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S611	1	("20100312667").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:40
S612	3327	mapping with (field near3 (label or tag or identifier or name))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S613	12	mapping with (field near3 (label or tag or identifier or name)) and (match$3 near5 advertis$5)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S614	8	("20080120305" | "6847967" | "6895551" | "20110258535" | "20020156799" | "20110093773" | "6601066" | "20110119220" | "6601066" | "6847967").PN.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S615	235	map$4 near5 field near5 ((web adj site) or website or webpage or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S616	19	map$4 near5 label near5 ((web adj site) or website or webpage or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S617	4781	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40

S618	4270	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and (link$3 or hyperlink)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S619	1787	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and (link$3 or hyperlink) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S620	1282	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and ((link$3 or hyperlink) same (field or label)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S621	702	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and ((link$3 or hyperlink) same (field or label)) and (populat$3 or pre-populat$3) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S622	69	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and ((link$3 or hyperlink) same (field or label)) and (populat$3 or pre-populat$3) and (advertisement or advertising) and vertical and heuristic	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S623	107	("5905862").URPN.	USPAT	ADJ	ON	2018/12/18 11:40
S624	12032	(match$3 or map$4) near5 (field near3 (identifier or name or ID))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S625	992	(match$3 or map$4) near5 (field near3 (identifier or name or ID)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S626	391	(match$3 or map$4) near5 (field near3 (identifier or name or ID)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site))) and advertising	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S627	463	(match$3 or map$4) near5 (field near3 (identifier or name or ID or defin$5)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site))) and advertising	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40

S628	1345	semantic adj map$4	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S629	7	semantic adj map$4 and (field adj (identifier or ID))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S630	1	("2011/0016228").URPN.	USPAT	ADJ	ON	2018/12/18 11:40
S631	13	semantic adj map$4 and (field adj (identifier or ID or descript$3))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S632	2	semantic adj map$4 adj dictionary and (field adj (identifier or ID or descript$3))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S633	2	semantic adj map$4 adj dictionary	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S634	0	semantic adj map$4 and map$4 near4 data near4 field near4 (descrip$3 or identifier or definition)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S635	10	semantic adj map$4 and map$4 with data with field with (descrip$3 or identifier or definition)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S636	0	advertising with using with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S637	10	(advertising or advertisement or (deep near3 ad)) with (us$3 or based) with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S638	10	(advertising or advertisement or ad) with (us$3 or based) with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S639	27	(advertising or advertisement or ad) same (us$3 or based) with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S640	97	("2010/0063880").URPN.	USPAT	ADJ	ON	2018/12/18 11:40

S641	670	map$4 same (field adj identifier)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S642	6	map$4 same (field adj identifier) and (link$3 near3 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S643	89	map$4 same (field near4 identifier) and (link$3 near3 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S644	1138	map$4 same (field near4 identifier) and (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S645	328	map$4 same (field near4 identifier) and ((ad or advertisement) same identifier)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S646	481	map$4 same (field near4 (ID or identifier)) and ((ad or advertisement) same identifier)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S647	494	map$4 same (field near4 (ID or identifier or name)) and ((ad or advertisement) same (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S648	80	map$4 near10 (field near4 (ID or identifier or name)) and ((ad or advertisement) near20 (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S649	1	("6490601").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:40
S650	185	map$4 same (field near4 (ID or identifier or name)) and ((ad or advertisement) near20 (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:40
S651	185	map$4 same (field near4 (ID or identifier or names)) and ((ad or advertisement) near20 (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S652	1271	map$4 same (field near4 (ID or identifier or names)) and ((ad or advertisement) same link$3)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41

S653	1	("20050144048").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:41
S654	402	("20010011250" | "5537586" | "5987440" | "6192380" | "6199079" | "6327598" | "6345278").PN. OR ("6490601").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2018/12/18 11:41
S655	140	(ad or advertis$5) same (semantic adj (match$3 or map$4))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S656	1	("20110016228").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:41
S657	1	("20100070448").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:41
S658	1	("20100063880").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:41
S659	2	("6718551" | "7752642").PN.	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S660	21	(webpage or (web adj page)) near3 content with (field adj name)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S661	24	(webpage or (web adj page) or website or (web adj site)) near3 content with (field adj name)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S662	20	(map$3 or link$3 or match$3) same (common or universal or global) same (field near3 (name or identifier or label)) same (plurality or multiple) near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S663	27	(map$3 or link$3 or match$3) same (common or universal or global or standard) same (field near3 (name or identifier or label)) same (plurality or multiple) near5	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41

		(website or site or (web adj site) or webpage or page or (web adj page))				
S664	4112	(map$3 or link$3 or match$3) near5 similar near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S665	5291	(map$3 or link$3 or match$3 or connect$3) near5 similar near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S666	16	(map$3 or link$3 or match$3 or connect$3) near5 similar near5 field near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S667	122	(map$3 or link$3 or match$3 or connect$3) near5 similar near5 (website or site or (web adj site) or webpage or page or (web adj page)) and (map$3 or link$3 or match$3 or connect$3) near5 ((field near3 (name or label or identifier)) or (data adj label))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S668	67	("2009/0024718").URPN.	USPAT	ADJ	ON	2018/12/18 11:41
S669	11	deep-link$3 near3 (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S670	145	((deep adj link$3) or deep-link$3) with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S671	49	deep-link$3 with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S672	3234	map$3 with field with identifier	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S673	1870	map$3 with field near5 identifier	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41

S674	981	map$3 near5 field near5 identifier	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S675	45	map$3 near5 field near5 identifier and heuristic	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S676	1	("6363376").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:41
S677	1	("20090164581").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:41
S678	1	("20020186255").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:41
S679	1	("20040243520").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:41
S680	5	(US-20020186255-$ or US-20040243520-$ or US-20090164581-$).did. or (US-7216292-$ or US-6363376-$).did.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S681	1	S680 and map$5 with field with identifier	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S682	3	S680 and map$5 with field with (name or identifier)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S683	3	S680 and map$5 with field with (name or identifier) same (webpage or (web adj page) or website or (web adj site))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S684	402	map$5 with field with (name or identifier) same (webpage or (web adj page) or website or (web adj site))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S685	5	(("7216292") or ("20040243520") or ("20090164581") or ("20070250520") or ("20110016228")).PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:41

S686	13	(ad or advertis$5) near5 second near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site)) with based with first near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site)) near5 (interaction or click$3 or hover$3 or select$3)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S687	3918	(ad or advertis$5) near5 related near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S688	376	(select$3 or plac$3) near3 (ad or advertis$5) near5 related near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S689	7284	match$3 with field near (identifier or ID or name)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S690	5	match$3 with field near3 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S691	5	match$3 with field near5 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S692	15	(map$4 or match$3 or similar) with field near5 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S693	16	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S694	16	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name) with (bewteen or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S695	78	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name) with (between or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41

S696	82	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name or label) with (between or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S697	6966	(find$3 or search$3) near5 related near5 web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S698	150	(find$3 or search$3) near5 related near5 web$6 and determin$5 near5 web$6 near5 similar	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S699	29	(find$3 or search$3) near5 related near5 web$6 and determin$5 near5 web$6 near5 similar and (tag or metatag) and (header or (site adj map))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S700	22259	vertical same horizontal same web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S701	342	vertical same horizontal same web$6 same (categor$7 or classif$7)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S702	103	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S703	91	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S704	101	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map) or field or drop$4)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S705	53	sister near3 web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:41
S706	17	pre-populat$3 near3 (field or form) with value with web$6	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41

S707	6	("2006/0212434").URPN.	USPAT	OR	ON	2018/12/18 11:41
S708	2	("5960411" | "6976090").PN.	USPAT	OR	ON	2018/12/18 11:41
S709	428	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) with web$6	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S710	16	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) and (pass$3 or transfer$4) near5 (value or parameter or attribute) near5 web$6	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S711	16	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) and (exchang$3 or pass$3 or transfer$4) near5 (value or parameter or attribute) near5 web$6	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:41
S712	46	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) and (exchang$3 or pass$3 or transfer$4 or transmi$5) near5 (value or parameter or attribute) near5 web$6	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S713	1947	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S714	810	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S715	369	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner and (chang$3 or modif$7) near3 (content or object or display)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S716	112	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner and (chang$3 or modif$7) near3 (content or object or display) and hover$3	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S717	21	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner and (chang$3 or modif$7) near3	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42

		(content or object or display) near5 advertis$5 and hover$3				
S718	31	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and (chang$3 or modif$7) near3 (content or object or display) near5 advertis$5 and hover$3	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S719	18	(dynamic$4 or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and (chang$3 or modif$7) near3 (content or object or display) near5 advertis$5 with user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S720	239	(dynamic$4 or real-time) near5 advertis$5 and (chang$3 or modif$7) near5 advertis$5 with user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S721	10637	advertis$5 with based with user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S722	8265	advertis$5 with based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S723	6292	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S724	0	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web%6	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S725	671	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web$6	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S726	302	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web$6 and related near3 web$6	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S727	6	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42

		or hover$3) with web$6 and related near3 web$6 near5 link$3				
S728	31	advertis$5 near5 based near5 user near5 web$6 near5 link$3	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S729	457	link$3 with related with (web$6 or site or page) with together	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S730	69	link$3 with related with (web$6 or site or page) with together and (crawl$3 or spider$3)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S731	20	advertiser with search$3 with publisher with similar$5 with (content or product or service or categor$3 or horizontal or vertical)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S732	9	advertiser near5 (locat$3 or find$3 or choos$3 or search$3) near5 (host or (third adj part$3) or publisher) with similar$5 near5(content or product or service or categor$3 or horizontal or vertical)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S733	1	search engine optimization tag	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S734	2	(search adj engine) with (optimization adj tag)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S735	59	(search adj engine adj tag)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S736	7	(search adj box adj tag)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S737	8	pars$3 near10 (name or title) near10 (search$3 near3 box)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S738	44	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 (search$3 near3 box)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42

S739	232	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 ((search$3 near3 box) or (form near3 field))	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S740	66	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 ((search$3 near3 box) or (form near3 field)) and advertis$5	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S741	269	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 ((search$3 near3 box) or ((entry or input or form or submission) near3 (form or field))) and advertis$5	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:42
S742	5	(US-20020023108-$ or US-20010054046-$ or US-20010037361-$ or US-20050209874-$ or US-20060212434-$).did.	US-PGPUB	OR	ON	2018/12/18 11:42
S743	6	(US-20020023108-$ or US-20010054046-$ or US-20010037361-$ or US-20050209874-$ or US-20060212434-$ or US-20040088713-$).did.	US-PGPUB	OR	ON	2018/12/18 11:42
S744	51467	(related or similar) near3 web$6	US-PGPUB	OR	ON	2018/12/18 11:42
S745	3530	(related or similar) near3 web$6 near5 (link$3 or index$3)	US-PGPUB	OR	ON	2018/12/18 11:42
S746	1920	(related or similar) near3 web$6 near5 (link$3 or index$3) and advertis$5	US-PGPUB	OR	ON	2018/12/18 11:42
S747	420	(related or similar) near3 web$6 near5 (link$3 or index$3) same advertis$5	US-PGPUB	OR	ON	2018/12/18 11:42
S748	629	(related or similar) near3 web$6 near5 (link$3 or index$3) same advertis$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S749	220	content near3 (related or similar) near3 web$6 near5 (link$3 or index$3) same advertis$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42

S750	21	web$6 with match$3 with (field or form) with (another or other) with web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S751	259	web$6 with (map$4 or link$3) with (field or box) with (another or other or similar) with web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S752	476	web$6 with (map$4 or link$3 or associat$3 or correlat$3) with (field or box) with (another or other or similar) with web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S753	48	web$6 near3 (map$4 or link$3 or associat$3 or correlat$3) near10 (field or box) near10 (another or other or similar) near3 web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S754	0	sav$3 near5 similarit$3 near3 between near3 web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S755	17	stor$3 near5 similarit$3 near3 between near3 web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S756	17	(extract$3 or find$3) near5 similarit$3 near3 between near3 web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S757	21	(extract$3 or find$3) near5 similarit$3 near3 (among$2 or between) near3 web$6	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S758	21	"8234134"	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S759	12	705/14.73.CCLS. and (deep near5 link$3)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S760	156	705/14.73.CCLS. and (map$4 near10 (variable or field or form))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S761	101	705/14.73.CCLS. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42

S762	394	G06Q30/0277.CPC. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S763	3	G06Q30/0277.CPC. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and ((pre-populat$3 or prepopulat$3) near10 (field or form))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S764	24	705/14.51.CCLS. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S765	12	705/14.51.CCLS. and (deep near5 link$3)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:42
S766	108	(deep near5 link$3) near10 advertis$5	US-PGPUB; USPAT; EPO; JPO	OR	ON	2018/12/18 11:43
S767	17218	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2018/12/18 11:43
S768	388	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2018/12/18 11:43
S769	5	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and ((pre-populat$3 or prepopulat$3) near10 (field or form or value))	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2018/12/18 11:43
S770	84	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2018/12/18 11:43
S771	1	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	EPO; JPO	OR	ON	2018/12/18 11:43

S772	0	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	EPO; JPO	ADJ	ON	2018/12/18 11:43
S773	1	(deep near5 link$3) near10 advertis$5	EPO; JPO	OR	ON	2018/12/18 11:43
S774	1	("6662340").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:43
S775	1	(deep near5 link$3) near10 advertis$5	FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S776	0	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S777	13	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S778	31	((map$3 or link$3) with (attribute or variable or field)) same (multiple with site)	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S779	3	((map$3 or link$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site)) and advertis$5	EPO; JPO	ADJ	ON	2018/12/18 11:43
S780	13	((map$3 or link$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site)) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S781	21	((map$3 or link$3 or match$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site)) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S782	25	((map$3 or link$3 or match$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site or page)) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S783	4	S782 not S781	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43

S784	0	map$4 near10 (webpage or website) near10 (field or form) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S785	1	map$4 near10 (webpage or website or web or site or page) near10 (field or form) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S786	49	(match$3 or link$4 or map$4) near10 (webpage or website or web or site or page) near10 (field or form) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S787	10	pre-populat$3 near5 (field or value) near5 (online or web$5)	FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S788	39	(automatic$4 near5 (fill$3 or pre-fill$3 or populat$3 or pre-populat$3)) near5 (field or value) near5 (online or web$5)	FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S789	67	mapping with field with name with standard	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S790	4	mapping with field with name with standard and (spider$3 or crawl$3 or push$3) with (web$5 or internet)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S791	30	mapping same field same name same standard and (spider$3 or crawl$3 or push$3) with (web$5 or internet)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S792	67	mapping with field with name with standard	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43

S793	418	deep near3 (ad or advertis$6)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S794	284	deep near3 (ad or advertis$6) and link$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S795	64	deep near3 (ad or advertis$6) with link$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S796	2383	universal near3 variable	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S797	63	universal near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S798	590	(standard or common) near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S799	816	(standard$4 or common or normal$4) near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43

S800	99	(standard$4 or common or normal$4) near3 variable near5 table and similar near3 (variable or name or value)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:43
S801	397	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S802	322	populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S803	36	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)) and (ad or advertisement)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:43
S804	838	((map or mapping) with (ad or advertisement) with (category or field or container))	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:44
S805	101	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map) or field or drop$4)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S806	15213	G06Q30/0277.CPC.	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44

S807	100	G06Q30/0277.CPC. and deep$ with advertis$6	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S808	75	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S809	5	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S810	223	G06Q30/0277.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S811	64	G06Q30/0276.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S812	125	G06N5/04.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S813	405	G06F17/30864.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44

S814	418	deep near3 (ad or advertis$6)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S815	284	deep near3 (ad or advertis$6) and link$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S816	64	deep near3 (ad or advertis$6) with link$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S817	2383	universal near3 variable	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S818	63	universal near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S819	590	(standard or common) near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S820	816	(standard$4 or common or normal$4) near3 variable near5 table	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44

S821	99	(standard$4 or common or normal$4) near3 variable near5 table and similar near3 (variable or name or value)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S822	397	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:44
S823	322	populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:44
S824	36	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)) and (ad or advertisement)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:44
S825	838	((map or mapping) with (ad or advertisement) with (category or field or container))	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:44
S826	101	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map) or field or drop$4)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S827	15213	G06Q30/0277.CPC.	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44

S828	100	G06Q30/0277.CPC. and deep$ with advertis$6	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S829	75	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S830	5	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S831	223	G06Q30/0277.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S832	64	G06Q30/0276.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S833	125	G06N5/04.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44
S834	405	G06F17/30864.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 11:44

S835	1065	((map$3 or link$3) with (attribute or variable or field or parameter)) same (multiple with web$5)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/12/18 11:44
S836	1	("6851087").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:45
S837	1	("6662340").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/18 11:45
S838	573	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) near10 ((multiple or various or several or similar) near3 (site or website or web-site)) and ((ad or advertisement) with link or URL)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 12:56
S839	36	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)) and (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 12:57
S840	64	deep near3 (ad or advertis$6) with link$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/12/18 12:57
S841	82	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name or label) with (between or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2018/12/18 12:57
S842	260	(ad or advertisement) with link$3 with (one or first) with (second or other or another) with (site or website or web-site or webpage or web-page)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 12:58
S843	63	universal near3 variable near5 table	US-PGPUB; USPAT; FPRS;	OR	ON	2018/12/18 12:59

			EPO; JPO			
S844	84	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2018/12/18 12:59
S845	73	((program$4 adj (container or variable)) same (link$3 or map$4)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 13:00
S846	125	(index$3 near3 (website or (web adj site) or web-site)) same (map$4 near3 field or tag or header or (site adj map)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 13:00
S899	4	(("7000242") or ("20070256005") or ("20040107201") or ("20120144281")).PN.	US-PGPUB; USPAT	OR	OFF	2020/02/05 12:52
S900	40	(deep$link$3 or contextual$link$3) same (banner or advertis$6) and book$3 with (web$site or web$page or page or site)	US-PGPUB; USPAT	OR	ON	2020/02/06 10:01
S901	13	("20080134049" | "20090228346" | "20120173345" | "20120323898" | "20120284247" | "20140207869" | "20120036003" | "20120054167" | "20120323898" | "20080267117" | "20050278651" | "20110087725" | "20110314004" | "20100229045").PN.	US-PGPUB; USPAT	OR	ON	2020/02/06 10:05
S902	143	(deep$link$3 or contextual$link$3) same (banner or advertis$6)	US-PGPUB; USPAT	OR	ON	2020/02/06 10:10
S903	1	("6959424").PN.	US-PGPUB; USPAT	OR	OFF	2020/02/06 10:18
S904	10	deep$link$3 same pre-populat$3	US-PGPUB; USPAT	OR	ON	2020/02/06 10:20
S905	79	deep$link$3 and pre-populat$3	US-PGPUB; USPAT	OR	ON	2020/02/06 10:21

S906	79	deep$link$3 and pre-populat$3	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2020/02/06 10:26
S907	125	(dynamic or variable) with contextual near3 (link$3 or advertis$6) same advertis$6	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2020/02/06 10:53
S908	40	(dynamic or variable) with contextual near3 (link$3 or advertis$6) same advertis$6 same (banner or link$3)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2020/02/06 10:53
S909	48	(dynamic or variable or real$time) with contextual near3 (link$3 or advertis$6) same advertis$6 same (banner or link$3)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2020/02/06 10:54
S910	1	("20110213655").PN.	US-PGPUB; USPAT	OR	OFF	2020/02/06 15:30
S913	18	("20040221231" | "20060095538" | "5956483" | "20030135582" | "20060023688" | "20080005067" | "20080126961" | "20050041667" | "20120173520" | "7788251" | "20070192166" | "20040054691" | "20110302521" | "20090204600" | "7107536" | "20080126961" | "8024384" | "20050282532" | "20090198662").PN.	US-PGPUB; USPAT	OR	ON	2020/02/08 13:59
S914	281	machine$readable same field near5 name	US-PGPUB; USPAT	OR	ON	2020/02/09 10:41

S915	138	machine$readable with field near5 name	US-PGPUB; USPAT	OR	ON	2020/02/09 10:41
S916	50	machine$readable same field near5 name same (map$4 or match$3 or link$4)	US-PGPUB; USPAT	OR	ON	2020/02/09 10:42
S917	132	machine$readable with variable with (map$4 or match$3 or link$4)	US-PGPUB; USPAT	OR	ON	2020/02/09 10:48
S918	33	machine$readable with form with field with (map$4 or match$3 or link$4)	US-PGPUB; USPAT	OR	ON	2020/02/09 10:52
S919	152	(computer$readable or machine$readable) with form with field with (map$4 or match$3 or link$4)	US-PGPUB; USPAT	OR	ON	2020/02/09 10:52
S920	162	text with input with box with name with (map$4 or match$3 or link$4)	US-PGPUB; USPAT	OR	ON	2020/02/09 11:33
S921	6419	field near2 identifier with (map$4 or match$3 or link$4)	US-PGPUB; USPAT	OR	ON	2020/02/09 11:38
S922	1410	field near2 identifier with (map$4 or match$3 or link$4) and one with field same second with field	US-PGPUB; USPAT	OR	ON	2020/02/09 11:39
S923	840	field near2 identifier with (map$4 or match$3 or link$4) and one with field same second with field same (map$4 or match$3 or link$4)	US-PGPUB; USPAT	OR	ON	2020/02/09 11:40
S925	3	"23406001".FMID.	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2020/02/10 12:48
S926	2859	(target$3 or context$3) with (ad or advertis$6 or marketing) same (smart or IoT)	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2020/02/10 14:28

S927	2862	(target$3 or context$3) with (ad or advertis$6 or marketing) same (smart or IoT or (chat adj bot))	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2020/02/10 14:29
S928	2493	(target$3 or context$3) with (ad or advertis$6) same (smart or IoT or (chat adj bot))	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2020/02/10 14:33
S929	2168	(target$3 or context$3) near8 (ad or advertis$6) same (smart or IoT or (chat adj bot))	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2020/02/10 14:33
S930	660	(target$3 or context$3) near8 (ad or advertis$6) with (smart or IoT or (chat adj bot))	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2020/02/10 14:34
S931	581	(target$3 or context$3) near8 (ad or advertis$6) with (smart or IoT or (chat adj bot))	US-PGPUB; USPAT	OR	ON	2020/02/10 14:35
S932	11	(target$3 or context$3) near8 (ad or advertis$6) with (internet adj2 things)	US-PGPUB; USPAT	OR	ON	2020/02/10 14:39
S933	477	(ad or advertis$6) with (internet adj2 things)	US-PGPUB; USPAT	OR	ON	2020/02/10 14:43
S934	16	display$3 with (ad or advertis$6) with (internet adj2 things) near3 (device or screen)	US-PGPUB; USPAT	OR	ON	2020/02/10 14:46
S935	36	display$3 with (ad or advertis$6) with ((internet adj2 things) or IoT) near3 (device or screen)	US-PGPUB; USPAT	OR	ON	2020/02/10 15:11
S936	1294	(ad or advertis$6) same ((internet adj2 things) or IoT) near3 (device or screen)	US-PGPUB; USPAT	OR	ON	2020/02/10 15:16

S937	467	(advertis$6) same ((internet adj2 things) or IoT) near3 (device or screen)	US-PGPUB; USPAT	OR	ON	2020/02/10 15:24
S938	837	(advertis$6) with (discount or offer$4 or rebate or purchas$3) and ((internet adj2 things) or IoT) near3 (device or screen)	US-PGPUB; USPAT	OR	ON	2020/02/10 15:35
S939	837	(advertis$6) with (discount or offer$4 or rebate or purchas$3) and ((internet adj2 things) or IoT or internetofthings) near3 (device or screen)	US-PGPUB; USPAT	OR	ON	2020/02/10 15:36
S940	944	(advertis$6) with (discount or offer$4 or rebate or purchas$3) and ((internet adj2 things) or IoT or internetofthings) near8 (device or screen)	US-PGPUB; USPAT	OR	ON	2020/02/10 15:37
S941	18187	(advertis$6) with (discount or offer$4 or rebate or purchas$3) and ((internet adj2 things) or IoT or internetofthings or (internet near3 device))	US-PGPUB; USPAT	OR	ON	2020/02/10 15:41
S942	822	(advertis$6) with (discount or offer$4 or rebate or purchas$3) same ((internet adj2 things) or IoT or internetofthings or (internet near3 device))	US-PGPUB; USPAT	OR	ON	2020/02/10 15:42
S943	6	(advertis$6) same ((internet adj2 things) or IoT or internetofthings) and 705/14.1-14.69.CCLS.	US-PGPUB; USPAT	OR	ON	2020/02/10 16:22
S944	28	(advertis$6 or marketing) and ((internet adj2 things) or IoT or internetofthings) and 705/14.1-14.69.CCLS.	US-PGPUB; USPAT	OR	ON	2020/02/10 17:23
S945	30	(advertis$6 or marketing) and ((internet adj2 things) or IoT or internetofthings) and 705/14.1-14.73.CCLS.	US-PGPUB; USPAT	OR	ON	2020/02/10 17:38
S946	2	S945 not S944	US-PGPUB; USPAT	OR	ON	2020/02/10 17:40
S947	1	("20080103897").PN.	US-PGPUB; USPAT	OR	OFF	2020/02/11 11:15

S948	225	input adj field and html near3 form and (universal or global or standard) near3 (name or identifier or label)	US-PGPUB; USPAT	OR	ON	2020/02/11 14:18
S949	621	input adj field and machine near6 identifier	US-PGPUB; USPAT	OR	ON	2020/02/11 14:28
S950	27	input adj field with definition near4 (code or label)	US-PGPUB; USPAT	OR	ON	2020/02/11 14:32
S951	4066	input adj field with (code or label)	US-PGPUB; USPAT	OR	ON	2020/02/11 14:35
S952	2	input adj field with (machine near4 label)	US-PGPUB; USPAT	OR	ON	2020/02/11 14:36
S954	5	input adj field with (machine with label)	US-PGPUB; USPAT	OR	ON	2020/02/11 14:37
S955	21	input near4 field same (machine with label)	US-PGPUB; USPAT	OR	ON	2020/02/11 14:38
S956	16185	(computer$readable or machine$readable) with (field or input) with identi$9	US-PGPUB; USPAT	OR	ON	2020/02/11 14:45
S957	717	(computer$readable or machine$readable) with input with (field or label) with (name or identi$9)	US-PGPUB; USPAT	OR	ON	2020/02/11 14:46
S958	52	(computer$readable or machine$readable) near5 input with (field or label) with (name or identi$9)	US-PGPUB; USPAT	OR	ON	2020/02/11 14:47
S959	1	("20190286978").PN.	US-PGPUB; USPAT	OR	OFF	2020/02/11 14:54
S960	1	("10133718").PN.	US-PGPUB; USPAT	OR	OFF	2020/02/11 14:59

S961	2	(("20070226754") or ("20140019458")).PN.	US-PGPUB; USPAT	OR	OFF	2020/02/11 15:17
S962	16	(chat adj bot) with advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/11 16:31
S963	32	(chat adj bot) same advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/11 16:49
S964	43	(automat$3 near3 conversation) same advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/11 16:59
S965	70	(chatbot) same advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/11 17:04
S966	2	(publisher or publisher's) with input with (field or form or box) with (match$3 or link$3 or map$4) with (advertiser or advertiser's or promoter or promoter's or promotions) with input with (field or form or box)	US-PGPUB; USPAT	OR	ON	2020/02/11 17:23
S967	12857	(match$3 or link$3 or map$4) with (destination or from) with (field or label or box)	US-PGPUB; USPAT	OR	ON	2020/02/11 17:24
S968	7770	(match$3 or link$3 or map$4) with (destination or from) near5 (field or label or box)	US-PGPUB; USPAT	OR	ON	2020/02/11 17:24
S969	10	(match$3 or link$3 or map$4) with (destination or from) near5 (field or label or box) with publisher	US-PGPUB; USPAT	OR	ON	2020/02/11 17:25
S970	30	(match$3 or link$3 or map$4) with (destination or date) near5 (field or label or box) with publisher	US-PGPUB; USPAT	OR	ON	2020/02/11 17:28
S971	7267	(match$3 or link$3 or map$4) with (destination or date) near3 field	US-PGPUB; USPAT	OR	ON	2020/02/11 17:37
S972	586	(match$3 or link$3 or map$4) with (destination or date) near3 field with between	US-PGPUB; USPAT	OR	ON	2020/02/11 17:38

S973	1	("10262342").PN.	US-PGPUB; USPAT	OR	OFF	2020/02/12 14:08
S974	3	(("20180025085") or ("20060282317") or ("20100161429")).PN.	US-PGPUB; USPAT	OR	OFF	2020/02/13 15:07
S975	281	chat$4 with window with advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/14 10:54
S976	334	chat$4 with (box or window) with advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/14 10:54
S977	954	(virtual near3 reality) with advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/14 16:50
S978	126	((virtual adj reality) or (augmented adj reality)) with link$3 with advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/14 18:14
S979	220	((virtual adj reality) or (augmented adj reality)) with advertis$6 and (checkout or check-out)	US-PGPUB; USPAT	OR	ON	2020/02/14 18:38
S980	90	((virtual adj reality) or (augmented adj reality)) with advertis$6 and booking	US-PGPUB; USPAT	OR	ON	2020/02/14 18:53
S981	42	((virtual adj reality) or (augmented adj reality)) with advertis$6 near5 (real$time)	US-PGPUB; USPAT	OR	ON	2020/02/14 19:08
S982	0	((virtual adj reality) or (augmented adj reality)) with advertis$6 and deep$link$3	US-PGPUB; USPAT	OR	ON	2020/02/14 19:19
S983	69	((virtual adj reality) or (augmented adj reality)) with advertis$6 and funnel	US-PGPUB; USPAT	OR	ON	2020/02/14 19:19
S984	170	((virtual adj reality) or (augmented adj reality)) with interact$3 and advertis$6 with (adjust$3 or chang$3 or modif$4) with (dynamic$ or real$time)	US-PGPUB; USPAT	OR	ON	2020/02/14 19:27

S985	133	((virtual adj reality) or (augmented adj reality)) with interact$3 and advertis$6 near5 (adjust$3 or chang$3 or modif$4) with (dynamic$ or real$time)	US-PGPUB; USPAT	OR	ON	2020/02/14 19:50
S986	128	((virtual adj reality) or (augmented adj reality)) with interact$3 and advertis$6 near5 (adjust$3 or chang$3 or modif$4) near5(dynamic$ or real$time)	US-PGPUB; USPAT	OR	ON	2020/02/14 19:50
S987	105	((virtual adj reality) or (augmented adj reality)) near5 (variable or parameter or characteristic or element) same advertise$5	US-PGPUB; USPAT	OR	ON	2020/02/14 20:08
S988	572	((virtual adj reality) or (augmented adj reality)) same advertis$5 same(launch$3 or direct$3 or redirect$3 or re$direct$3)	US-PGPUB; USPAT	OR	ON	2020/02/14 20:17
S989	238	((virtual adj reality) or (augmented adj reality)) same advertis$5 with(launch$3 or direct$3 or redirect$3 or re$direct$3)	US-PGPUB; USPAT	OR	ON	2020/02/14 20:18
S990	74	((virtual adj reality) or (augmented adj reality)) same advertis$5 same link$3 with (web$6)	US-PGPUB; USPAT	OR	ON	2020/02/14 20:32
S991	545	((virtual adj reality) or (augmented adj reality)) and embed$4 near5 advertis$5 and (purchas$3 or transaction or completion)	US-PGPUB; USPAT	OR	ON	2020/02/14 21:01
S992	44	((virtual adj reality) or (augmented adj reality)) same embed$4 near5 advertis$5 and (purchas$3 or transaction or completion)	US-PGPUB; USPAT	OR	ON	2020/02/14 21:01
S993	108	((virtual adj reality) or (augmented adj reality)) and advertis$6 near5 (dynamic or real$time) same (user near3(input or select$3))	US-PGPUB; USPAT	OR	ON	2020/02/14 21:16
S994	163	((virtual adj reality) or (augmented adj reality)) and advertis$6 near5 (dynamic or real$time or evolve or chang$3 or switch$3) same (user near3(input or select$3))	US-PGPUB; USPAT	OR	ON	2020/02/14 21:18
S995	159	((virtual adj reality) or (augmented adj reality)) and advertis$6 near5 (dynamic or real$time or evolve or chang$3 or switch$3) same (user near3 (click$3 or select$3))	US-PGPUB; USPAT	OR	ON	2020/02/14 21:29

S996	38	((virtual adj reality) or (augmented adj reality)) and advertis$6 near5 (select$3 or dynamic or real$time or evolve or chang$3 or switch$3) with based with tag	US-PGPUB; USPAT	OR	ON	2020/02/14 21:32
S997	182	((virtual adj reality) or (augmented adj reality)) with identif$6 near5 field	US-PGPUB; USPAT	OR	ON	2020/02/14 21:46
S998	13	(cross$promot$3 or cross$marketing) same ((virtual adj reality) or (augmented adj reality) or VR or AR)	US-PGPUB; USPAT	OR	ON	2020/02/15 11:05
S999	81	(cross$promot$3 or cross$marketing) and ((virtual adj reality) or (augmented adj reality) or VR or AR)	US-PGPUB; USPAT	OR	ON	2020/02/15 11:12
S1000	13	(cross$promot$3 or cross$marketing or (cross adj promot$3) or (cross adj marketing)) same ((virtual adj reality) or (augmented adj reality) or VR or AR)	US-PGPUB; USPAT	OR	ON	2020/02/15 11:21
S1001	180	(cross$promot$3 or cross$marketing or (cross adj promot$3) or (cross adj marketing)) and ((virtual adj reality) or (augmented adj reality) or VR or AR)	US-PGPUB; USPAT	OR	ON	2020/02/15 11:22
S1002	114	(cross$promot$3 or cross$marketing or (cross adj promot$3) or (cross adj marketing)) and ((virtual adj reality) or (augmented adj reality))	US-PGPUB; USPAT	OR	ON	2020/02/15 11:29
S1006	21	captain adj crunch	US-PGPUB; USPAT	OR	ON	2020/02/15 15:34
S1007	114	(cross$promot$3 or cross$marketing or (cross adj promot$3) or (cross adj marketing)) and ((virtual adj reality) or (augmented adj reality)) and (duration or times or long)	US-PGPUB; USPAT	OR	ON	2020/02/16 09:49
S1008	73	(cross$promot$3 or cross$marketing or (cross adj promot$3) or (cross adj marketing)) and ((virtual adj reality) or (augmented adj reality)) and (duration or times or long) near8 (image or picture or photo or product)	US-PGPUB; USPAT	OR	ON	2020/02/16 09:50

S1009	56	(cross$promot$3 or cross$marketing or (cross adj promot$3) or (cross adj marketing)) and ((virtual adj reality) or (augmented adj reality)) and (duration or times or long) near8 (image or picture or photo or product) and feedback	US-PGPUB; USPAT	OR	ON	2020/02/16 09:51
S1010	32	((virtual adj reality) or (augmented adj reality)) and (shopping or store) and ((inventory or product) near2 database) and (picture with identif$7 with object)	US-PGPUB; USPAT	OR	ON	2020/02/16 11:39
S1011	721	((virtual adj reality) or (augmented adj reality)) and (shopping or store) and ((inventory or product) near2 database) and ((product or picture or image) with (recogni$5 or identif$7) with object)	US-PGPUB; USPAT	OR	ON	2020/02/16 11:46
S1012	0	((virtual adj reality) or (augmented adj reality)) and (shopping or store) and ((inventory or product) near2 database) with availability with size with pric$3 and ((product or picture or image) with (recogni$5 or identif$7) with object)	US-PGPUB; USPAT	OR	ON	2020/02/16 11:49
S1013	9	((virtual adj reality) or (augmented adj reality)) and (shopping or store) and ((inventory or product) near2 database) with availability with (size or pric$3) and ((product or picture or image) with (recogni$5 or identif$7) with object)	US-PGPUB; USPAT	OR	ON	2020/02/16 11:49
S1014	113	((virtual adj reality) or (augmented adj reality)) and (shopping or store) and ((inventory or product) near2 database) and (availability with (size or pric$3)) and ((product or picture or image) with (recogni$5 or identif$7) with object) and (additional or related or other) near5 product	US-PGPUB; USPAT	OR	ON	2020/02/16 12:18
S1015	100	adjacency adj proximit$3	US-PGPUB; USPAT	OR	ON	2020/02/16 14:17
S1016	1	adjacency adj proximit$3 same subject	US-PGPUB; USPAT	OR	ON	2020/02/16 14:29

S1017	2	adjacency adj proximit$3 same (topic or product or subject)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:29
S1018	3	adjacency adj3 proximit$3 same (topic or product or subject)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:30
S1019	5	adjacency adj3 proximit$3 same (topic or product or subject or keyword)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:30
S1020	5	adjacency adj3 proximit$3 same (categor$3 or topic or product or subject or keyword)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:31
S1021	21	adjacency adj3 proximit$3 and (proximit$3 or adjacenc$3) same (categor$3 or topic or product or subject or keyword)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:31
S1022	21	adjacenc$3 adj3 proximit$3 and (proximit$3 or adjacenc$3) same (categor$3 or topic or product or subject or keyword)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:34
S1023	114123	(proximit$3 or adjacenc$3) same (categor$3 or topic or product or subject or keyword)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:35
S1024	45800	(proximit$3 or adjacenc$3) with (categor$3 or topic or product or subject or keyword)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:35
S1025	407	matrix with (proximit$3 or adjacenc$3) with (categor$3 or topic or product or subject or keyword)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:35
S1026	319	matrix with (proximit$3 or adjacenc$3) with (categor$3 or topic or product or subject or keyword) and (match$3 or close of fit or fitness)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:36
S1027	0	matrix with (proximit$3 or adjacenc$3) with (categor$3 or topic or product or subject or keyword) and (match$3 or close of fit or fitness) and (cross$market$3 or cross$promot$3)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:37

S1028	319	matrix with (proximit$3 or adjacenc$3) with (categor$3 or topic or product or subject or keyword) and (match$3 or close of fit or fitness)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:38
S1029	355	matrix with (proximit$3 or adjacenc$3) with (categor$3 or topic or product or subject or keyword) and (match$3 or close$4 of fit or fitness)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:38
S1030	97	matrix with (proximit$3 or adjacenc$3) with (categor$3 or topic or product or subject or keyword) and (match$3 or close$4 of fit or fitness) and (advertis$5 or market$3 or promotion)	US-PGPUB; USPAT	OR	ON	2020/02/16 14:39
S1031	221	matrix with (proximit$3 or adjacenc$3) with (concept or word or thing or categor$3 or topic or product or subject or keyword) and (match$3 or close$4 of fit or fitness) and (advertis$5 or market$3 or promotion)	US-PGPUB; USPAT	OR	ON	2020/02/16 15:40
S1032	13	matrix with (proximit$3 or adjacenc$3) with (verticals) and (advertis$5 or market$3 or promotion)	US-PGPUB; USPAT	OR	ON	2020/02/16 15:46
S1033	0	matrix with (proximit$3 or adjacenc$3) with (verticals) with categor$3 with product	US-PGPUB; USPAT	OR	ON	2020/02/16 15:48
S1034	0	matrix with (proximit$3 or adjacenc$3) with (verticals) and categor$3 with product	US-PGPUB; USPAT	OR	ON	2020/02/16 15:48
S1035	0	matrix with (proximit$3 or adjacenc$3) same (verticals) and categor$3 with product	US-PGPUB; USPAT	OR	ON	2020/02/16 15:49
S1036	0	matrix with (proximit$3 or adjacenc$3) same (vertical) and categor$3 with product	US-PGPUB; USPAT	OR	ON	2020/02/16 15:49
S1037	53	matrix with (proximit$3 or adjacenc$3) same (verticals) and (advertis$5 or market$3 or promotion)	US-PGPUB; USPAT	OR	ON	2020/02/16 15:49
S1038	32	matrix with (proximit$3 or adjacenc$3) and (search$3 near3 vertical)	US-PGPUB; USPAT	OR	ON	2020/02/16 15:51

S1039	81	matrix with (proximit$3 or adjacenc$3) and (search$3 with vertical)	US-PGPUB; USPAT	OR	ON	2020/02/16 15:55
S1040	81	matrix with (proximit$3 or adjacenc$3) and (search$3 with vertical) and matrix	US-PGPUB; USPAT	OR	ON	2020/02/16 15:55
S1041	120	matrix with (proximit$3 or adjacenc$3) and matrix with product and product with (class$2 or categor$8)	US-PGPUB; USPAT	OR	ON	2020/02/16 15:58
S1042	57	matrix with (proximit$3 or adjacenc$3) and matrix with product and product near5 (class$2 or categor$8)	US-PGPUB; USPAT	OR	ON	2020/02/16 15:58
S1043	1028	matrix with (proximit$3 or adjacenc$3) and matrix with (topic or subject or product) and (class$2 or categor$8)	US-PGPUB; USPAT	OR	ON	2020/02/16 16:23
S1044	175	matrix with (proximit$3 or adjacenc$3) and matrix with (topic or subject or product) with (related or similar$5) and (class$2 or categor$8)	US-PGPUB; USPAT	OR	ON	2020/02/16 16:23
S1045	1023	matrix with (proximit$3 or adjacenc$3 or similarity) and matrix with (topic or subject or product) with (related or similar$5) and (class$2 or categor$8)	US-PGPUB; USPAT	OR	ON	2020/02/16 16:25
S1046	192	matrix with (proximit$3 or adjacenc$3 or similarity) and matrix with (topic or subject or product) with (related or similar$5) and (class$2 or categor$8) and (search$3 with (vertical or product))	US-PGPUB; USPAT	OR	ON	2020/02/16 16:26
S1047	212	matrix with (proximit$3 or adjacenc$3 or similarity) and matrix with (content or topic or subject or product) with (related or similar$5) and (class$2 or categor$8) and (search$3 with (vertical or product))	US-PGPUB; USPAT	OR	ON	2020/02/16 16:31
S1048	263	matrix with (proximit$3 or adjacenc$3 or similarity) and matrix with (content or topic or subject or product or term) with (related or similar$5) and (class$2 or categor$8) and (search$3 with (vertical or product))	US-PGPUB; USPAT	OR	ON	2020/02/16 16:36

S1049	9	similarity near5 matrix and (cross$marketing or cross$promot$3) and advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/16 16:59
S1050	9	similarity near5 (index or matrix) and (cross$marketing or cross$promot$3) and advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/16 17:10
S1051	109	similarity near5 (index or matrix) same advertis$6	US-PGPUB; USPAT	OR	ON	2020/02/16 17:10
S1052	1	("10262342").PN.	US-PGPUB; USPAT	OR	OFF	2020/02/16 18:04
S1053	102	daisy$chain$3 with (site or web$site or web$page)	US-PGPUB; USPAT	OR	ON	2020/04/29 12:40
S1054	62	daisy$chain$3 with (ad or advertis$6)	US-PGPUB; USPAT	OR	ON	2020/04/29 12:43
S1055	9136	(universal$2 or global$2) with (variable or parameter or field) with (map$4 or link$3)	US-PGPUB; USPAT	OR	ON	2020/04/29 13:21
S1056	4958	(universal$2 or global$2) near7 (variable or parameter or field) with (map$4 or link$3)	US-PGPUB; USPAT	OR	ON	2020/04/29 13:23
S1057	13	(universal$2 or global$2) near7 (variable or parameter or field) with (map$4 or link$3) same publisher	US-PGPUB; USPAT	OR	ON	2020/04/29 13:23
S1058	541	(universal$2 or global$2) near7 (variable or attribute or parameter or field) with (map$4 or link$3) same (standard or publisher or web$7)	US-PGPUB; USPAT	OR	ON	2020/04/29 13:27
S1059	604	(universal$2 or global$2) near7 (variable or attribute or parameter or field) with (map$4 or link$3) same (standard or publisher or web$7 or site)	US-PGPUB; USPAT	OR	ON	2020/04/29 13:27
S1060	1488	(universal$2 or global$2) near7 (variable or attribute or parameter or field) with (map$4	US-PGPUB; USPAT	OR	ON	2020/04/29 13:28

		or link$3) same (standard or publisher or web$7 or site or application)				
S1061	1084	(universal$2 or global$2) near7 (variable or attribute or parameter or field or data) with (map$4 or link$3) same (standard or publisher or web$7 or site or application) and advertis$6	US-PGPUB; USPAT	OR	ON	2020/04/29 13:30
S1062	335	(universal$2 or global$2) near7 (variable or attribute or parameter or field or data) with (map$4 or link$3) same (standard or publisher or web$7 or site or application) and advertis$6 and @AD>="20000101"<="20100206"	US-PGPUB; USPAT	OR	ON	2020/04/29 13:34
S1063	97	normaliz$6 same map$4 same (private or unique) and advertis$6 and @AD>="20000101"<="20100206"	US-PGPUB; USPAT	OR	ON	2020/04/29 13:43
S1064	113	normaliz$6 same map$4 same (private or unique) and advertis$6 and @AD>="20000101"<="20101206"	US-PGPUB; USPAT	OR	ON	2020/04/29 13:56
S1065	366	(universal$2 or global$2) near7 (variable or attribute or parameter or field or data) with (map$4 or link$3) same (standard or publisher or web$7 or site or application) and advertis$6 and @AD>="20000101"<="20101206"	US-PGPUB; USPAT	OR	ON	2020/04/29 13:56
S1066	31	S1065 not S1062	US-PGPUB; USPAT	OR	ON	2020/04/29 13:57
S1067	16	S1064 not S1063	US-PGPUB; USPAT	OR	ON	2020/04/29 13:57
S1068	1349	G06F16/84.CPC.	US-PGPUB; USPAT	OR	ON	2020/04/29 15:17
S1069	2914	G06F16/84-88.CPC.	US-PGPUB; USPAT	OR	ON	2020/04/29 15:17

S1070	260	G06F16/84-88.CPC. and advertis$6	US-PGPUB; USPAT	OR	ON	2020/04/29 15:18
S1071	229	G06F16/84-88.CPC. and advertis$6 and map$4	US-PGPUB; USPAT	OR	ON	2020/04/29 15:20
S1072	2043	G06F16/84-88.CPC. and (field) and map$4	US-PGPUB; USPAT	OR	ON	2020/04/29 15:22
S1073	508	G06F16/84-88.CPC. and (field) with map$4	US-PGPUB; USPAT	OR	ON	2020/04/29 15:23
S1074	573	G06F16/84-88.CPC. and (variable or field) with map$4	US-PGPUB; USPAT	OR	ON	2020/04/29 15:24
S1075	100	G06F16/84-88.CPC. and (variable or field) with map$4 and (advertis$6 or ad)	US-PGPUB; USPAT	OR	ON	2020/04/29 15:41
S1076	397	G06Q30/0276-0277.CPC. and (variable or field) with map$4 and (advertis$6 or ad)	US-PGPUB; USPAT	OR	ON	2020/04/29 17:02
S1077	157	G06Q30/0276-0277.CPC. and (variable or field) with map$4 and (advertis$6 or ad) and @AD>="20000101"<="20101206"	US-PGPUB; USPAT	OR	ON	2020/04/29 17:04
S1078	171	G06F16/951.CPC. and (variable or field) with map$4 and (advertis$6 or ad) and @AD>="20000101"<="20101206"	US-PGPUB; USPAT	OR	ON	2020/04/29 17:12
S1079	0	mapping with field with another with field	US-PGPUB; USPAT	OR	ON	2020/04/29 17:35
S1080	0	map with field with another with field	US-PGPUB; USPAT	OR	ON	2020/04/29 17:35
S1081	1643	extract$3 with field adj name	US-PGPUB; USPAT	OR	ON	2020/04/29 17:37

S1082	7	(crawl$3 or extract$3) with field adj name and map$3 near5 (field or name) with (generic$4 or universal$2 or global$2) with (variable or name or field)	US-PGPUB; USPAT	OR	ON	2020/04/29 17:38
S1083	15	(crawl$3 or extract$3) with form near3 field and map$3 near5 (field or name) with (generic$4 or universal$2 or global$2) with (variable or name or field)	US-PGPUB; USPAT	OR	ON	2020/04/29 17:38
S1117	148	((deep near5 link$3) or deep$link$3) near10 advertis$5	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:08
S1118	8579	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:11
S1119	3379	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6 and (pass$3 or populat$3 or pre$populat$3) with (variable or form or field)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:12
S1120	2377	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6 and (pass$3 or populat$3 or pre$populat$3) with (variable or form or field or value) and (common or standard or global or universal) with (field or nam$3 or variable)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:15
S1121	2527	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6 and (pass$3 or populat$3 or pre$populat$3) with (variable or form or field or value) and (common or standard$4 or normal$4 or global or universal) with (field or nam$3 or variable)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:16
S1122	832	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6 and (pass$3 or populat$3 or pre$populat$3) with (variable or form or field or value) and (common or standard$4 or normal$4 or global or universal) with (field or	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:17

		nam$3 or variable) and extract$ near5 (value or selection or field)				
S1123	776	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6 and (pass$3 or populat$3 or pre$populat$3) with (variable or form or field or value) and (common or standard$4 or normal$4 or global or universal) with (field or nam$3 or variable) and extract$ near5 (value or selection or field) and (direct$3 or link$3 or navigat$3) with device	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:19
S1124	495	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6 and (pass$3 or populat$3 or pre$populat$3) with (variable or form or field or value) and (common or standard$4 or normal$4 or global or universal) with (field or nam$3 or variable) and extract$ near5 (value or selection or field) and (direct$3 or link$3 or navigat$3) with device with application	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:27
S1125	597	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6 and (pass$3 or populat$3 or pre$populat$3) with (variable or form or field or value) and (common or standard$4 or normal$4 or global or universal) with (field or nam$3 or variable) and extract$ near5 (value or selection or field) and (direct$3 or link$3 or navigat$3) with device with (web$site or web$page or site or web or application or Internet)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:28
S1126	10	pre-populat$3 near5 (field or value) near5 (online or web$5)	FPRS; EPO; JPO	OR	ON	2020/05/12 14:31
S1127	35	mapping same field same name same standard and (spider$3 or crawl$3 or push$3) with (web$5 or internet)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2020/05/12 14:32
S1128	597	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6 and ((pass$3 or populat$3 or	US-PGPUB; USPAT;	OR	ON	2020/05/12 14:33

		pre$populat$3) with (variable or form or field or value)) and ((common or standard$4 or normal$4 or global or universal) with (field or nam$3 or variable)) and (extract$ near5 (value or selection or field))and ((direct$3 or link$3 or navigat$3) with device with (web$site or web$page or site or web or application or Internet))	EPO; JPO			
S1129	413	(map$4 near5 (variable or field or form)) and (link$3 near5 (web or page or site)) and advertis$6 and ((pass$3 or populat$3 or pre$populat$3) near5 (variable or form or field or value)) and ((common or standard$4 or normal$4 or global or universal) near5 (field or nam$3 or variable)) and (extract$ near5 (value or selection or field)) and ((direct$3 or link$3 or navigat$3) near10 device near10 (web$site or web$page or site or web or application or Internet))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2020/05/12 14:36
S1130	53	(computer$readable or machine$readable) near5 input with (field or label) with (name or identi$9)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2020/05/12 14:37
S1131	30	(match$3 or link$3 or map$4) with (destination or date) near5 (field or label or box) with publisher	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2020/05/12 14:38
S1132	366	(universal$2 or global$2) near7 (variable or attribute or parameter or field or data) with (map$4 or link$3) same (standard or publisher or web$7 or site or application) and advertis$6 and @AD>="20000101"<="20101206"	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2020/05/12 14:38
S1133	30	input near4 field same (machine with label)	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2020/05/12 14:42

S1134	0	deep$link$3 and pre-populat$3	FPRS; EPO; JPO	OR	ON	2020/05/12 14:44
S1135	0	(crawl$3 or extract$3) with form near3 field and map$3 near5 (field or name) with (generic$4 or universal$2 or global$2) with (variable or name or field)	FPRS; EPO; JPO	OR	ON	2020/05/12 14:46
S1136	0	(deep-link$3 or (deep adj link$3)) near10 (ad or advertisement or advertising) and (match$3 or mapping)	FPRS; EPO; JPO	ADJ	ON	2020/05/12 14:47

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S349	49	(deep near5 link$3) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2017/02/22 11:11
S352	11	universal with variable with map.CLM.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:13
S359	0	(explicitly or implicitly) with pre-populat$3 with values with extract$3 with interaction with (ad or advertis$5) with (site or page or web or application).CLM.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:24
S360	0	extract$3 with value with correspond$3 with field with interaction with (ad or advertis$5) with (site or page or web or application).CLM.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:25
S361	308	mapping with field with identifier.CLM.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:25
S362	0	mapping with field with identifier with normalized with variable.CLM.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:26
S363	9	pass$3 with value with correspond$3 with first with second with (site or web or page or application).CLM.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:27

S366	0	universal with variable with map and 705/14.73.CCLS.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:31
S367	0	universal with variable with map and 705/14.4.CCLS.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:32
S368	0	universal with variable with map and 705/14.51.CCLS.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:32
S369	0	universal with variable with map and G06Q30/0277.CPC.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:32
S370	1	(deep near5 link$3) near5 advertis$5 and 705/14.73.CCLS.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:32
S371	1	(deep near5 link$3) near5 advertis$5 and 705/14.4.CCLS.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:33
S372	7	(deep near5 link$3) near5 advertis$5 and 705/14.51.CCLS.	US-PGPUB; USPAT	OR	ON	2017/02/22 11:33
S373	49	(deep-link$4 or (deep near5 link$3)) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2017/02/22 11:34
S423	58	deep near3 (ad or advertis$6) with link$3	US-PGPUB; USPAT	OR	ON	2018/05/24 11:56
S424	63	(deep near5 link$3) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2018/05/24 11:57
S425	71	universal near3 variable near5 (table or map$4 or database)	US-PGPUB; USPAT	OR	ON	2018/05/24 11:58
S426	12290	(standard$4 or common or normal$4 or universal) near3 (attribute or parameter or field of variable) near5 (table or map$4 or database)	US-PGPUB; USPAT	OR	ON	2018/05/24 11:59

S427	986	((map$3 or link$3) with (attribute or variable or field or parameter)) same (multiple with web$5)	US-PGPUB; USPAT	ADJ	ON	2018/05/24 12:00
S428	142	pre-populat$3 near5 (field or value) near5 (online or web$5)	US-PGPUB; USPAT	OR	ON	2018/05/24 12:00
S429	446	link$3 with related with (web$6 or site or page) with together	US-PGPUB; USPAT	ADJ	ON	2018/05/24 12:01
S430	130	(obtain$3 or infer$5) with field adj identifiers	US-PGPUB; USPAT	OR	ON	2018/05/24 12:27
S431	9	(obtain$3 or infer$5) with field adj identifiers and map$4 with field with identifiers	US-PGPUB; USPAT	OR	ON	2018/05/24 12:27
S432	14	normalized with variable with database.CLM.	US-PGPUB; USPAT	OR	ON	2018/05/24 12:28
S433	70	deep$8 with (ad or advertisement or advertising).CLM.	US-PGPUB; USPAT	OR	ON	2018/05/24 12:30
S434	26	(obtain$3 or infer$5) with field adj identifiers.CLM.	US-PGPUB; USPAT	OR	ON	2018/05/24 12:32
S435	4	(pass$3 or pre-populat$3) with value with field adj identifier.CLM.	US-PGPUB; USPAT	OR	ON	2018/05/24 12:33
S436	67	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3)	US-PGPUB; USPAT	OR	ON	2018/05/24 12:54
S437	4	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/05/24 12:55
S438	210	G06Q30/0277.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/05/24 12:55

S439	59	G06Q30/0276.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/05/24 12:55
S440	63	G06N5/04.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/05/24 12:56
S441	364	G06F17/30864.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/05/24 12:56
S442	986	((map$3 or link$3) with (attribute or variable or field or parameter)) same (multiple with web$5)	US-PGPUB; USPAT	ADJ	ON	2018/05/24 12:56
S443	70	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3)	US-PGPUB; USPAT	OR	ON	2018/09/27 15:31
S444	64	G06Q30/0276.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/09/27 15:31
S445	110	G06N5/04.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/09/27 15:32
S446	396	G06F17/30864.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/09/27 15:32
S447	14	universal with variable with map.CLM.	US-PGPUB; USPAT	OR	ON	2018/09/27 15:32
S448	65	(deep near5 link$3) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2018/09/27 15:32
S449	11	pass$3 with value with correspond$3 with first with second with (site or web or page or application).CLM.	US-PGPUB; USPAT	OR	ON	2018/09/27 15:32
S450	4	(pass$3 or pre-populat$3) with value with field adj identifier.CLM.	US-PGPUB; USPAT	OR	ON	2018/09/27 15:33

S451	14	normalized with variable with database.CLM.	US-PGPUB; USPAT	OR	ON	2018/09/27 15:34
S452	142	pre-populat$3 near5 (field or value) near5 (online or web$5)	US-PGPUB; USPAT	OR	ON	2018/09/27 15:35
S453	65	(deep-link$4 or (deep near5 link$3)) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2018/09/27 15:35
S454	10	(obtain$3 or infer$5) with field adj identifiers and map$4 with field with identifiers	US-PGPUB; USPAT	OR	ON	2018/09/27 15:35
S455	2	(explicitly or implicitly) with pre-populat$3 with values with extract$3 with interaction with (ad or advertis$5) with (site or page or web or application).CLM.	US-PGPUB; USPAT	OR	ON	2018/09/27 15:36
S456	0	extract$3 with value with correspond$3 with field with interaction with (ad or advertis$5) with (site or page or web or application).CLM.	US-PGPUB; USPAT	OR	ON	2018/09/27 15:36
S457	373	mapping with field with identifier.CLM.	US-PGPUB; USPAT	OR	ON	2018/09/27 15:36
S460	2	universal with variable with searchable with classes and attributes with product	US-PGPUB; USPAT	OR	ON	2018/09/27 15:41
S461	6	correspondingly with linked with field with identifier	US-PGPUB; USPAT	OR	ON	2018/09/27 15:42
S847	68	(deep near5 link$3) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S848	15	universal with variable with map.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S849	2	(explicitly or implicitly) with pre-populat$3 with values with extract$3 with interaction with (ad or advertis$5) with (site or page or web or application).CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43

S850	0	extract$3 with value with correspond$3 with field with interaction with (ad or advertis$5) with (site or page or web or application).CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S851	383	mapping with field with identifier.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S852	2	mapping with field with identifier with normalized with variable.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S853	11	pass$3 with value with correspond$3 with first with second with (site or web or page or application).CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S854	0	universal with variable with map and 705/14.73.CCLS.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S855	0	universal with variable with map and 705/14.4.CCLS.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S856	0	universal with variable with map and 705/14.51.CCLS.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S857	3	universal with variable with map and G06Q30/0277.CPC.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S858	1	(deep near5 link$3) near5 advertis$5 and 705/14.73.CCLS.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S859	1	(deep near5 link$3) near5 advertis$5 and 705/14.4.CCLS.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S860	7	(deep near5 link$3) near5 advertis$5 and 705/14.51.CCLS.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43
S861	68	(deep-link$4 or (deep near5 link$3)) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:43

S862	64	deep near3 (ad or advertis$6) with link$3	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S863	68	(deep near5 link$3) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S864	73	universal near3 variable near5 (table or map$4 or database)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S865	12869	(standard$4 or common or normal$4 or universal) near3 (attribute or parameter or field of variable) near5 (table or map$4 or database)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S866	1023	((map$3 or link$3) with (attribute or variable or field or parameter)) same (multiple with web$5)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:44
S867	143	pre-populat$3 near5 (field or value) near5 (online or web$5)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S868	457	link$3 with related with (web$6 or site or page) with together	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:44
S869	145	(obtain$3 or infer$5) with field adj identifiers	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S870	11	(obtain$3 or infer$5) with field adj identifiers and map$4 with field with identifiers	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S871	15	normalized with variable with database.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S872	75	deep$8 with (ad or advertisement or advertising).CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S873	32	(obtain$3 or infer$5) with field adj identifiers.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44

S874	5	(pass$3 or pre-populat$3) with value with field adj identifier.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S875	75	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S876	5	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S877	223	G06Q30/0277.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/12/18 11:44
S878	64	G06Q30/0276.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S879	125	G06N5/04.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S880	405	G06F17/30864.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S881	1023	((map$3 or link$3) with (attribute or variable or field or parameter)) same (multiple with web$5)	US-PGPUB; USPAT	ADJ	ON	2018/12/18 11:45
S882	75	G06Q30/0277.CPC. and deep$ with advertis$6 and (pass$3 or populat$3 or pre$populat$3)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S883	64	G06Q30/0276.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S884	125	G06N5/04.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S885	405	G06F17/30864.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45

S886	15	universal with variable with map.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S887	68	(deep near5 link$3) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S888	11	pass$3 with value with correspond$3 with first with second with (site or web or page or application).CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S889	5	(pass$3 or pre-populat$3) with value with field adj identifier.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S890	15	normalized with variable with database.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S891	143	pre-populat$3 near5 (field or value) near5 (online or web$5)	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S892	68	(deep-link$4 or (deep near5 link$3)) near5 advertis$5	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S893	11	(obtain$3 or infer$5) with field adj identifiers and map$4 with field with identifiers	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S894	2	(explicitly or implicitly) with pre-populat$3 with values with extract$3 with interaction with (ad or advertis$5) with (site or page or web or application).CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S895	0	extract$3 with value with correspond$3 with field with interaction with (ad or advertis$5) with (site or page or web or application).CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S896	383	mapping with field with identifier.CLM.	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S897	3	universal with variable with searchable with classes and attributes with product	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45

S898	6	correspondingly with linked with field with identifier	US-PGPUB; USPAT	OR	ON	2018/12/18 11:45
S1084	229	G06F16/84-88.CPC. and advertis$6 and map$4	US-PGPUB; USPAT	OR	ON	2020/04/29 22:02
S1085	2043	G06F16/84-88.CPC. and (field) and map$4	US-PGPUB; USPAT	OR	ON	2020/04/29 22:03
S1086	508	G06F16/84-88.CPC. and (field) with map$4	US-PGPUB; USPAT	OR	ON	2020/04/29 22:03
S1087	573	G06F16/84-88.CPC. and (variable or field) with map$4	US-PGPUB; USPAT	OR	ON	2020/04/29 22:03
S1088	100	G06F16/84-88.CPC. and (variable or field) with map$4 and (advertis$6 or ad)	US-PGPUB; USPAT	OR	ON	2020/04/29 22:03
S1089	157	G06Q30/0276-0277.CPC. and (variable or field) with map$4 and (advertis$6 or ad) and @AD>="20000101"<="20101206"	US-PGPUB; USPAT	OR	ON	2020/04/29 22:04
S1090	171	G06F16/951.CPC. and (variable or field) with map$4 and (advertis$6 or ad) and @AD>="20000101"<="20101206"	US-PGPUB; USPAT	OR	ON	2020/04/29 22:04
S1091	0	mapping with field with another with field	US-PGPUB; USPAT	OR	ON	2020/04/29 22:04
S1092	0	map with field with another with field	US-PGPUB; USPAT	OR	ON	2020/04/29 22:04
S1093	1643	extract$3 with field adj name	US-PGPUB; USPAT	OR	ON	2020/04/29 22:04
S1094	7	(crawl$3 or extract$3) with field adj name and map$3 near5 (field or name) with (generic$4 or universal$2 or global$2) with (variable or name or field)	US-PGPUB; USPAT	OR	ON	2020/04/29 22:04

S1095	15	(crawl$3 or extract$3) with form near3 field and map$3 near5 (field or name) with (generic$4 or universal$2 or global$2) with (variable or name or field)	US-PGPUB; USPAT	OR	ON	2020/04/29 22:04
S1096	3	set with programming with variables with universal with variable with map.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:05
S1097	1	second with ad with programming with variables with second with site with Internet.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:07
S1098	1	second with ad with programming with variables with second with application.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:07
S1099	4	deep-linked with ad with universal with variable with map.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:08
S1100	1	deep-linked with programming with variables.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:09
S1101	3	deep-linked with first with Internet with application.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:09
S1102	0	extracting with site with applicaiton with values with corresponding with programming with variables.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:10
S1103	0	passing with values with corresponding with programming with variables.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:10
S1104	4	explicitly with pre-populated with values with extracted.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:11
S1105	1	deep$link$3 with (ad or advertisement) with video with product.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:12
S1106	6	programming with variable with attribute with product.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:13

S1107	0	deep-linked with ad with second with site with third with site.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:13
S1108	0	deep-linked with ad with second with application with third with site.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:14
S1109	5	deep-linked with ad.CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:14
S1110	9	deep$link$3 with (advertis$6 or ad).CLM.	US-PGPUB; USPAT	OR	ON	2020/04/29 22:15
S1111	188	G06N5/04.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2020/05/12 13:38
S1112	0	G06F17/30864.CPC. and advertis$6 and (pass$3 or populat$3 or pre$populat$3) and (variable or attribute of field) near5 map$4	US-PGPUB; USPAT	OR	ON	2020/05/12 13:39
S1115	48	G06N5/04.CPC. and (universal$3 or global$2) same (variable or field) same map$4	US-PGPUB; USPAT	OR	ON	2020/05/12 13:47
S1116	6	G06N5/04.CPC. and deep$link$3	US-PGPUB; USPAT	OR	ON	2020/05/12 13:49

5/12/2020 2:53:44 PM
C:\Users\akarmis\Documents\EAST\Workspaces\All_Deep-link.wsp

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(Not for submission under 37 CFR 1.99)

Application Number	16265615
Filing Date	2019-02-01
First Named Inventor	Narendra NATH
Art Unit	3684
Examiner Name	KARMIS, ALISSA D.
Attorney Docket Number	M4921.2110 [CAO/sf]

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	2	20190164199	A1	2019-05-30	Nath et al.	Entire Document

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	16265615
	Filing Date	2019-02-01
	First Named Inventor	Narendra NATH
	Art Unit	3684
	Examiner Name	KARMIS, ALISSA D.
	Attorney Docket Number	M4921.2110 [CAO/sf]

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
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[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16265615
	Filing Date	2019-02-01
	First Named Inventor	Narendra NATH
	Art Unit	3684
	Examiner Name	KARMIS, ALISSA D.
	Attorney Docket Number	M4921.2110 [CAO/sf]

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Cecily Anne O'Regan/	Date (YYYY-MM-DD)	2020-05-19
Name/Print	Cecily A O'Regan	Registration Number	37448

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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 the Freedom of Information Act requires disclosure of these record s.

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 inspections 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.

Electronic Patent Application Fee Transmittal

Application Number:	16265615
Filing Date:	01-Feb-2019
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Filer:	Cecily Anne O'Regan
Attorney Docket Number:	M4921.2110

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

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($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	120	120
		Total in USD ($)		**120**

Electronic Acknowledgement Receipt	
EFS ID:	39479875
Application Number:	16265615
International Application Number:	
Confirmation Number:	7032
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Customer Number:	62993
Filer:	Cecily Anne O'Regan
Filer Authorized By:	
Attorney Docket Number:	M4921.2110
Receipt Date:	19-MAY-2020
Filing Date:	01-FEB-2019
Time Stamp:	13:55:39
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$120
RAM confirmation Number	E20205ID57036240
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	Metarail_M4921-2110_SupplIDS_2020-05-19.pdf	1053225 1b68488bc13ba2b2c271a406864beeac9b912746	no	4
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30478 8b86d2734087ef7760c03eb62107858dbea25058	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1083703		

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.

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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/265,615	02/01/2019	Narendra Nath	META1100-11

CONFIRMATION NO. 7032

POWER OF ATTORNEY NOTICE

44654
Sprinkle IP Law Group
1301 W. 25th Street
Suite 408
Austin, TX 78705

OC000000117069416

Date Mailed: 05/19/2020

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 05/15/2020.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/agizaw/

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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/265,615	02/01/2019	Narendra Nath	M4921.2110

CONFIRMATION NO. 7032

62993
BUCHALTER
18400 VON KARMAN AVE.
SUITE 800
IRVINE, CA 92612

POA ACCEPTANCE LETTER

OC000000117069481

Date Mailed: 05/19/2020

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 05/15/2020.

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.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/agizaw/

PTO/AIA/80 (07-17)
Approved for use through 01/31/2018. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no person is 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(c).

I hereby appoint:

[X] Practitioners associated with Customer Number: 62993

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(c).

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

[X] The address associated with Customer Number: 62993

OR

[ ]

Firm or individual name BUCHALTER		
Address 55 Second Street, 17th Floor		
City San Francisco	State California	Zip 94105
Country United States		
Telephone (415) 227-0900	Email IPDocket@Buchalter.com	

Assignee name and address: METARAIL, INC., 63 Bovet Road #226, San Mateo, CA 94402

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of the practitioners appointed in this form, 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 /Gina R. White/	Date 2020-05-13
Name Gina R. White	Telephone
Title CEO	

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 update (and by the USPTO to process) the file of a patent or reexamination proceeding. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 18 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.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: METARAIL, INC.

Application No./Patent No.: 16/265,615 Filed/Issue Date: February 1, 2019

Confirmation No.: 7032

File: M4921.2110

Entitled: DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

METARAIL, INC., a California Corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that for the patent application/patent identified above it is:

1. ☒ The assignee of the entire right, title and interest.
2. ☐ An assignee of less than the entire right, title and interest.
   - ☐ The extent (by percentage) of its ownership interest is ___%.
   - ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right title and interest are: _____

Additional Statements by the owners holding the balance of the interest MUST be submitted.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title and interest are: _____

Additional Statements by the owners holding the balance of the interest MUST be submitted.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

THE INTEREST IDENTIFIED IN 1, 2, OR 3 ABOVE (NOT 4) IS EVIDENCED BY ONE OF:

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel/ Frame (on) _____, 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 shown below:

1. From: Inventor To: WAYFARE INTERACTIVE, INC.
   The document was recorded in the United States Patent and Trademark Office at Reel/ Frame (on) **048224/0242 (2/2/2019)**, or for which a copy thereof is attached.
2. From: WAYFARE INTERACTIVE, INC. To: METARAIL, INC.
   The document was recorded in the United States Patent and Trademark Office at Reel/ Frame (on) **048230/0333 (2/2/2019)**, or for which a copy thereof is attached.

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

☐ Copies of assignments or other documents in the chain of title are attached.
[NOTE: A separate copy (*i.e.*, the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded 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

/ Cecily Anne O'Regan/ DATE: May 15, 2020

Cecily Anne O'Regan
Printed Name

37448
Title or Reg No

Buchalter
55 Second Street | Suite 1700
San Francisco, California 94105
Main No.: (415) 227-0900

Fax No.: (415) 227-0770
EMAIL: IPDocket@BUCHALTER.COM

Electronic Acknowledgement Receipt

EFS ID:	39451489
Application Number:	16265615
International Application Number:	
Confirmation Number:	7032
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Customer Number:	44654
Filer:	Cecily Anne O'Regan
Filer Authorized By:	
Attorney Docket Number:	META1100-11
Receipt Date:	15-MAY-2020
Filing Date:	01-FEB-2019
Time Stamp:	12:18:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	Metarail_USPTO_POA-AIA80.pdf	97145 f160605ac12eedfa77c72ca47cbe7060b18a2c02	no	1
Warnings:					

Information:					
2	Assignee showing of ownership per 37 CFR 3.73	M4921-2110_373.pdf	129246 3b7b8fd9d77732f1d7875f4e44a0dfce9ea12a5d	no	1
Warnings:					
Information:					
			Total Files Size (in bytes):	226391	

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.

Doc Code: PET.POA.WDRW
Document Description: Petition to withdraw attorney or agent (SB83)

PTO/AIA/83 (04-13)
Approved for use through 03/31/2021. OMB 0651-0035
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 displays a valid OMB control number.

REQUEST FOR WITHDRAWAL AS ATTORNEY OR AGENT AND CHANGE OF CORRESPONDENCE ADDRESS

Application Number	16/265,615
Filing Date	02/01/2019
First Named Inventor	Narendra NATH
Art Unit	3683
Examiner Name	Alissa D. KARMIS
Practitioner Docket Number	META1100-11

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Please withdraw me as attorney or agent for the above-identified patent application, and

☐ all the practitioners of record;

☐ the practitioners (with registration numbers) of record listed on the attached paper(s); or

☒ the practitioners of record associated with Customer Number: 44654

NOTE: The immediately preceding box should only be marked when the practitioners were appointed using the listed Customer Number.

The reason(s) for this request are those described in 37 CFR:

☐ 11.116(a)(1) ☐ 11.116(a)(2) ☒ 11.116(a)(3)
☐ 11.116(b)(1) ☐ 11.116(b)(2) ☐ 11.116(b)(3)
☐ 11.116(b)(4) ☐ 11.116(b)(5) ☐ 11.116(b)(6)
☐ 11. 116(b)(7) Please explain below:

Client has disengaged our firm and hired other counsel.

Certifications

Check each box below that is factually correct. WARNING: If a box is left unchecked, the request will likely not be approved.

1. ☒ I/We have given reasonable notice to the client, prior to the expiration of the response period, that the practitioner(s) intend to withdraw from employment.

2. ☒ I/We have delivered to the client or a duly authorized representative of the client all papers and property (including funds) to which the client is entitled.

3. ☒ I/We have notified the client of any responses that may be due and the time frame within which the client must respond.

Please provide an explanation, if necessary:

This collection of information is required by 37 CFR 1.36. 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 15 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.

PTO/AIA/83 (04-13)
Approved for use through 03/31/2021. OMB 0651-0035
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 displays a valid OMB control number.

REQUEST FOR WITHDRAWAL AS ATTORNEY OR AGENT AND CHANGE OF CORRESPONDENCE ADDRESS

Complete the following section only when the correspondence address will change. *Changes of address will only be accepted to an applicant.*

Change the correspondence address and direct all future correspondence to:

A. ☐ The address of the applicant associated with Customer Number: _____

OR

B. ☒ Applicant

Address c/o Buchalter, 55 Second Street, Suite 1700

City	State	Zip	Country
San Francisco	CA	94105-3493	US

Telephone 415-227-3554 Email IPDocket@buchalter.com

I am authorized to sign on behalf of myself and all withdrawing practitioners.

Signature /katharina schuster/

Name Katharina W. Schuster Registration No. 50000

Address 1301 W. 25th Street, Suite 408

City	State	Zip	Country
Austin	TX	78705	US

Date May 14, 2020 Telephone No. 512-637-9220

NOTE: Withdrawal is effective when approved rather than when received.

This collection of information is required by 37 CFR 1.36. 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 15 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.

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.

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
16/265,615	05/15/2020 10:19:18 AM ET	META1100-11

Title of Invention

DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	7032	FILED BY	Janice Pampell
PATENT CENTER #	60022500	FILING DATE	02/01/2019
CUSTOMER #	44654	FIRST NAMED INVENTOR	Narendra Nath
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Katharina Schuster

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
META1100-11_Request_to_Withdraw.pdf	3	Petition to withdraw attorney or agent (SB83)	70 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
META1100-11_Request_to_Withdraw.pdf	1445DB27A90D25CA145686E44ABF6E45368CAD183E0C98B8710F4BD58DFEB751C7041096644B7EBA96D4F39CE7CD6A17196D584FF4F181E4F1A08315646EE31B

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 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.

Electronic Patent Application Fee Transmittal

Application Number:	16265615
Filing Date:	01-Feb-2019
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Filer:	Katharina W. Schuster/Margarita Marquez
Attorney Docket Number:	META1100-11

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

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($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	120	120
		Total in USD ($)		**120**

Electronic Acknowledgement Receipt	
EFS ID:	39434823
Application Number:	16265615
International Application Number:	
Confirmation Number:	7032
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Customer Number:	44654
Filer:	Katharina W. Schuster/Margarita Marquez
Filer Authorized By:	Katharina W. Schuster
Attorney Docket Number:	META1100-11
Receipt Date:	13-MAY-2020
Filing Date:	01-FEB-2019
Time Stamp:	18:12:51
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$120
RAM confirmation Number	E20205CI13256210
Deposit Account	503183
Authorized User	Margarita Marquez
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 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	Transmittal Letter	META1100-11_IDS_05-13-2020.pdf	34115 55711da2c4596b13f638fbb5694e31139f46289e	no	3
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	META1100-11_PTOSB08A.pdf	50416 c7ed94625085ae7bff682f86e7fb431cc819e0c2	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Information Disclosure Statement (IDS) Form (SB08)	META1100-11_PTOSB08B.pdf	40902 5c9535c4e0977243d07819c67703fc6d7c755ebb	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
4	Non Patent Literature	META1100-2_Ref_C16.pdf	2247164 4167d318e7f491f9992a3bb15f421e90daa691c2	no	21
Warnings:					
Information:					
5	Non Patent Literature	META1100-2_Ref_C17.pdf	1161430 d3ad7283073eb3b4c3ede637b77cbcc4d44f7f55	no	11
Warnings:					
Information:					
6	Non Patent Literature	META1100-2_Ref_C18.pdf	1210179 97e3d47038d5f02ede00bab829769a91350cafeb	no	12

Warnings:					
Information:					
7	Non Patent Literature	META1100-2_Ref_C19.pdf	1133209 d49c190058af969772183f1c80d45ebaf1b1d50b	no	11
Warnings:					
Information:					
8	Non Patent Literature	META1100-2_Ref_C20.pdf	1937094 2535e8a3845e21ac37318b0622950ae3962c9eb6	no	18
Warnings:					
Information:					
9	Non Patent Literature	META1100-2_Ref_C21.pdf	1225776 4b97b07fb582ae40b6fd24a9a3648647ec5481d4	no	12
Warnings:					
Information:					
10	Fee Worksheet (SB06)	fee-info.pdf	30751 4b165e9244584ae8bdca5848f31635f3a017fe6b	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	9071036	

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

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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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No. (Opt.) **META1100-11**

First Named Inventor: **Narendra Nath**	
Application Number **16/265,615**	Filing or 371 (c) Date: **02/01/2019**
For **DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE**	
Group Art Unit **3683**	Examiner **Alissa D. Karmis**
Confirmation Number: **7032**	

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

CERTIFICATION OF TRANSMISSION UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence is being transmitted to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 via the U.S. Patent and Trademark Office Electronic Filing System (EFS-Web) on May 13, 2020.

By: /Margarita Marquez/
Margarita Marquez

Dear Sir,

Applicant respectfully requests, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the information listed on the attached SB08A/B form(s) be considered and cited in the examination of the above-identified application. A copy of U.S. Patent(s) and U.S. Patent Application Publication(s) listed on the attached SB08A form is not being submitted with this Information Disclosure Statement pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i) by the U.S. Patent and Trademark Office. Where applicable, a copy of foreign patent document(s) as well as information listed on the attached SB08B form is enclosed for the convenience of the Examiner.

☐ This Information Disclosure Statement is being submitted within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d).

☐ This Information Disclosure Statement is being submitted within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application;

☐ This Information Disclosure Statement is being submitted before the mailing of a First Office Action on the merits; or

☐ This Information Disclosure Statement is being submitted before the mailing of a First Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114.

☒ This Information Disclosure Statement is being submitted after the period specified in 37 C.F.R. § 1.97(b) and before the mailing date of any of a Final Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:

- ☐ The statement specified in 37 C.F.R. § 1.97(e); or
- ☒ The fee set forth in 37 C.F.R. § 1.17(p). Applicant hereby authorizes the Commissioner to deduct the amount of $240.00 (Large Entity) or $120.00 (Small Entity) from Deposit Account No. 50-3183 of Sprinkle IP Law Group for the filing fee of this Information Disclosure Statement.

☐ This Information Disclosure Statement is being submitted after the period specified in 37 C.F.R. § 1.97(c) and on or before payment of the issue fee and is accompanied by:

- ☐ The statement specified in 37 C.F.R. § 1.97(e); and
- ☐ The fee set forth in 37 C.F.R. § 1.17(p). Applicant hereby authorizes the Commissioner to deduct the amount of $240.00 (Large Entity) or $120.00 (Small Entity) from Deposit Account No. 50-3183 of Sprinkle IP Law Group for the filing fee of this Information Disclosure Statement.

Pursuant to 37 C.F.R. § 1.97(e), Applicant hereby states:

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement; or

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the information disclosure statement.

Pursuant to 37 C.F.R. §§ 1.97(g) and (h), no representation is made that a search has been made or that this information is material to patentability of the present application.

Respectfully submitted,

SPRINKLE IP LAW GROUP
Attorneys for Applicant

/Katharina Schuster/

Katharina W. Schuster
Reg. No. 50,000

Dated: May 1, 2020

1301 W. 25th Street, Suite 408
Austin, Texas 78705
Tel. (512) 637-9220
Fax. (512) 371-9088

INFORMATION DISCLOSURE STATEMENT				Application Number	16/265,615
				Filing or 371 (c) Date:	02/01/2019
				First Named Inventor	Narendra Nath
				Group Art Unit	3683
				Examiner Name	Alissa D. Karmis
Sheet	1	of	1	Attorney Docket Number	META1100-11

U.S. PATENT DOCUMENTS

Initials	Cite No.	Document Number Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	A77	20120144281	06-07-2012	Schechter et al.	
	A78	20150186931	07-02-2015	Flake	
	A79	20090112656	04-30-2009	Jung et al.	
	A80	20110213655	09-01-2011	Henkin et al.	
	A81	20180025085	01-25-2018	Sarangi et al.	
	A82	8046259	10-25-2011	Siegel et al.	
	A83	20140100997	04-10-2014	Mayerle et al.	
	A84	20100235220	09-16-2010	Guha et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Number Country Code Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY (Number 43)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear

Examiner Signature		Date Considered	

INFORMATION DISCLOSURE STATEMENT				Application Number	16/265,615
				Filing or 371 (c) Date:	02/01/2019
				First Named Inventor	Narendra Nath
				Group Art Unit	3683
				Examiner Name	Alissa D. Karmis
Sheet	1	of		Attorney Docket Number	META1100-11

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), 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	T[2]
	C16	Office Action issued for U.S. Patent Application No. 15/672,905, mailed February 18, 2020, 21 pages.	
	C17	Office Action issued for U.S. Patent Application No. 15/678,765, mailed February 18, 2020, 11 pages.	
	C18	Office Action issued for U.S. Patent Application No. 15/687,831, mailed February 19, 2020, 12 pages.	
	C19	Office Action issued for U.S. Patent Application No. 15/706,002, mailed February 19, 2020, 11 pages.	
	C20	Office Action issued for U.S. Patent Application No. 15/724,022, mailed February 19, 2020, 18 pages.	
	C21	Office Action issued for U.S. Patent Application No. 15/789,164, mailed February 19, 2020, 12 pages.	

Examiner Signature		Date Considered	

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
* 16/265,615 *	16/265,615	Nath et al.	
	Examiner	**Art Unit**	
	KARMIS, ALISSA D	3683	

Document Code - DISQ	**Internal Document - DO NOT MAIL**

TERMINAL DISCLAIMER	☑ APPROVED	☐ DISAPPROVED
Date Filed: 24 April 2020	**This patent is subject to a Terminal Disclaimer**	

Approved/Disapproved by:
/PAMELA A YOUNG/
Technology Center: PLRC
Telephone: (571)272-3622

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE	
REPLY TO OFFICE ACTION DATED 10/25/2019	Atty. Docket No. **META1100-11**

First Named Inventor **Narendra Nath**	
Application Number **16/265,615**	Date Filed **February 1, 2019**
Title **DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE**	
Group Art Unit **3683**	Examiner **Alissa D. Karmis**
Confirmation Number: **7032**	

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

Dear Sir:

Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on April 24, 2020.

/Margarita Marquez/
Margarita Marquez

This paper is submitted in response to the Official Action mailed on October 25, 2019. Please reconsider the above-identified application in view of the following amendments and remarks.

Amendments to the Claims begin on page 2 of this paper.

Remarks/Arguments begin on page 5 of this paper.

AMENDMENTS TO THE CLAIMS

Please amend the claims as set forth in the following listing. This listing of claims will replace all prior versions, and listings, of claims in the present application:

1. (Currently Amended) A method, comprising:

generating, by a server computer, a deep-linked ad utilizing a universal variable map stored in a data store and accessible by the server computer, the universal variable map linking programming variables across multiple sites on the Internet and applications;

serving, by the server computer, the deep-linked ad through a first site or mobile application, the deep-linked ad linking a first set of programming variables of [[a]]the first site on the Internet or [[a]]the first mobile ~~of the~~ application~~s~~ with a second set of programming variables of a second site on the Internet or a second mobile application, the first set of programming variables being associated with the second set of programming variables in the universal variable map stored in the data store; and

in response to a user interacting with the deep-linked ad displayed on a user device through an instance of the first site on the Internet or the first mobile application:

extracting, through the first site on the Internet or the first mobile application, values corresponding to the first set of programming variables;

automatically directing the user device to the second site on the Internet or the second mobile application; and

passing the values corresponding to the first set of programming variables to the second set of programming variables such that one or more fields corresponding to the second set of programming variables of the second site on the Internet or the second mobile application are explicitly or implicitly pre-populated with the values extracted through the first site on the Internet or the first mobile application.

2. (New) The method according to claim 1, wherein serving the deep-linked ad comprises inserting the deep-linked ad into a video on the first site on the Internet or in the first mobile application, the video showing a product or service.

3. (New) The method according to claim 2, wherein the deep-linked ad is selected based on content being displayed or played to the user through the first site on the Internet or the first mobile application.

4. (New) The method according to claim 1, wherein serving the deep-linked ad comprises fetching and displaying a deep-linked page, the deep-linked page having information for a product or service.

5. (New) The method according to claim 4, wherein the first set of programming variables comprises a programming variable associated with the product or the service and wherein the second set of programming variables comprises a programming variable associated with an attribute or element of the product or the service.

6. (New) The method according to claim 1, wherein the second site on the Internet comprises a second deep-linked ad that utilizes the universal variable map stored in the data store and wherein the second deep-linked ad links the second set of programming variables of the second site on the Internet with a third set of programming variables of a third site on the Internet or a third mobile application, the second set of programming variables being associated with the third set of programming variables in the universal variable map stored in the data store.

7. (New) The method according to claim 6, wherein interaction between an end user and the second deep-linked ad on the second site on the Internet, through a browser running on a computing device of the end user, directs the browser to the third site on the Internet or to the third mobile application and passes values corresponding to the second set of programming variables to the third set of programming variables such that one or more fields corresponding to the third set of programming variables of the third site on the Internet or the third mobile application are explicitly or implicitly pre-populated with the values passed from the first site on the Internet or the first mobile application through the second set on the Internet to the third site on the Internet or the third mobile application.

8. (New) The method according to claim 1, wherein the second mobile application comprises a second deep-linked ad that utilizes the universal variable map stored in the data store and wherein the second deep-linked ad links the second set of programming variables of the second mobile application with a third set of programming variables of a third site on the Internet or a third mobile application, the second set of programming variables being associated with the third set of programming variables in the universal variable map stored in the data store.

9. (New) The method according to claim 8, wherein interaction between an end user and the second deep-linked ad in the second mobile application on a computing device of the end user directs the computing device to the third site on the Internet or to the third mobile application and passes values corresponding to the second set of programming variables to the third set of programming variables such that one or more fields corresponding to the third set of programming variables of the third site on the Internet or the third mobile application are explicitly or implicitly pre-populated with the values passed from the first site on the Internet or the first mobile application through the second mobile application to the third site on the Internet or the third mobile application.

10. (New) The method according to claim 1, wherein the deep-linked ad comprises at least one of a page, a banner, an icon, an animated ad, a text-based ad, or a check box.

REMARKS

Applicant appreciates the time taken by the Examiner to review Applicant's present application. This application has been carefully reviewed in light of the Official Action mailed on October 25, 2019 ("Office Action").

Claim 1 is amended herein to correct inadvertent informalities. Dependent claims 2-10 are newly added and include the limitations of claim 1. Support for claims 2-10 can be found in the specification as originally filed. *See e.g.,* paragraphs [0105], [0112]-[0113]. Applicant does not acquiesce to the Examiner's rejections, claim interpretations or other statements in the Office Action. Having addressed the claim objections and the double-patenting rejection set forth in the Official Action, Applicant believes that all pending claims 1-10 are in condition for allowance. Accordingly, Applicant respectfully requests a timely Notice of Allowance be issued in this case.

Claim Objections

Claim 1 was objected to for informalities. Claim 1 is amended herein to correct the inadvertent informalities. Accordingly, withdrawal of this objection is respectfully requested.

Double Patenting Rejection

Claim 1 was rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 10,262,342. Applicant is including with this reply a timely filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(c). U.S. Patent No. 10,262,342 and the current Application are commonly owned. Accordingly, withdrawal of this rejection is respectfully requested.

* * * * *

Conclusion

Applicant has now made an earnest attempt to place this case in condition for allowance. Other than as explicitly set forth above, this reply does not include any acquiescence to statements, assertions, assumptions, conclusions, or any combination thereof in the Office Action. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests full allowance of all pending claims 1-10. The Examiner is invited to telephone the undersigned at the number listed below for prompt action in the event any issues remain.

An extension of three (3) months is requested and a Notification of Extension of Time Under 37 C.F.R. § 1.136 with the appropriate fee is enclosed herewith.

The Director of the U.S. Patent and Trademark Office is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3183 of Sprinkle IP Law Group.

Respectfully submitted,

Sprinkle IP Law Group
Attorneys for Applicant

/Katharina Schuster/

Katharina W. Schuster
Reg. No. 50,000

Date: April 24, 2020

1301 W. 25th Street, Suite 408
Austin, TX 78705
Tel. (512) 637-9220
Fax. (512) 371-9088

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE	
TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A PRIOR PATENT	Atty. Docket No. **META1100-11**

First Named Inventor **Narendra Nath**	
Application Number **16/265,615**	Date Filed **February 1, 2019**
Title **DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE**	
Group Art Unit **3683**	Examiner **Alissa D. Karmis**
Confirmation Number: **7032**	

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

Certificate of Transmission Under 37 C.F.R. § 1.8

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/Margarita Marquez/
Margarita Marquez

Dear Sir:

MetaRail, Inc., the owner of one hundred percent (100%) interest in the instant application as evidenced by the Assignment recorded on February 2, 2019 on Reel/Frame: 048230/0333 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 of U.S. Patent No. 10,262,342. 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 C.F.R. 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 box 1, 2, 3, or 4 as appropriate.

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

Statement under 37 C.F.R. 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.

2. ☒ The undersigned is an attorney or agent of record.

3. ☐ Terminal disclaimer fee of $160.00 under 37 C.F.R. 1.20(d) included.

4. ☒ Terminal disclaimer fee under 37 C.F.R. 1.20(d). The Commissioner is hereby authorized to deduct $160.00 representing the above-noted filing fee from Deposit Account. No. 50-3183 of Sprinkle IP Law Group. The Commissioner is hereby further authorized to deduct any deficiencies or credit any overpayments regarding this application from the same account.

/Katharina Schuster/ April 24, 2020

Katharina W. Schuster
Reg. No. 50,000

Dated

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE	
NOTIFICATION OF EXTENSION OF TIME UNDER 37 C.F.R § 1.136	Atty. Docket No. META1100-11

First Named Inventor **Narendra Nath**	
Application Number **16/265,615**	Date Filed **February 1, 2019**
Title **DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE**	
Group Art Unit **3683**	Examiner **Alissa D. Karmis**
Confirmation Number: **7032**	

Mail Stop AMENDMENT

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

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I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on April 24, 2020.

/Margarita Marquez/
Margarita Marquez

Dear Sir:

Applicant hereby takes an Extension of Time for responding to the Official Action mailed on October 25, 2019 for a period of three (3) month(s).

		Small Entity	***Large Entity***
☐	First Month	$ 100.00	$ 200.00
☐	Second Month	$ 300.00	$ 600.00
☒	Third Month	$ 700.00	$ 1,400.00
☐	Fourth Month	$ 1,100.00	$ 2,200.00
☐	Fifth Month	$ 1,500.00	$ 3,000.00
	TOTAL	**$ 700.00**	**$**

The Commissioner is hereby authorized to deduct the above-noted fee from Deposit Account 50-3183 of SPRINKLE IP LAW GROUP. If any fees are inadvertently omitted, additional fees are required, or if any amounts have been overpaid, please appropriately charge or credit those fees to Deposit Account No. 50-3183 of SPRINKLE IP LAW GROUP.

Respectfully submitted,

SPRINKLE IP LAW GROUP
Attorneys for Applicant

/Katharina Schuster/

Katharina W. Schuster
Reg. No. 50,000

Dated: April 24, 2020

1301 W. 25th Street, Suite 408
Austin, Texas 78705
Tel. (512) 637-9220
Fax. (512) 371-9088

Electronic Patent Application Fee Transmittal

Application Number:	16265615
Filing Date:	01-Feb-2019
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Filer:	Katharina W. Schuster/Margarita Marquez
Attorney Docket Number:	META1100-11

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

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($)
Extension - 3 months with $0 paid	2253	1	700	700
Miscellaneous:				
STATUTORY OR TERMINAL DISCLAIMER	2814	1	160	160
		Total in USD ($)		**860**

Electronic Acknowledgement Receipt	
EFS ID:	39264149
Application Number:	16265615
International Application Number:	
Confirmation Number:	7032
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Customer Number:	44654
Filer:	Katharina W. Schuster/Margarita Marquez
Filer Authorized By:	Katharina W. Schuster
Attorney Docket Number:	META1100-11
Receipt Date:	24-APR-2020
Filing Date:	01-FEB-2019
Time Stamp:	19:12:01
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$860
RAM confirmation Number	E20204NJ12520366
Deposit Account	503183
Authorized User	Margarita Marquez
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 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		META1100-11_ROA_04-24-2020.pdf	38378 a9ca436fa25254c66b4861272560ef6cc511b03d	yes	6
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Amendment/Req. Reconsideration-After Non-Final Reject		1	1	
	Claims		2	4	
	Applicant Arguments/Remarks Made in an Amendment		5	6	
Warnings:					
Information:					
2	Terminal Disclaimer Filed	META1100-11_TD_04-24-2020.pdf	24845 b65e1d8a3699b3924f8e09ce144ab7b609ddd450	no	2
Warnings:					
Information:					
3	Authorization for Extension of Time all replies	META1100-11_EOT_04-24-2020.pdf	23101 dfdc697659cc1ba7bff0666d51384292c9d1f5c2	no	1
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	33139 bdd905d3b37c0ef493550c0c6091353d938494e7	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	119463		

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.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. 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 16/265,615	Filing Date 02/01/2019	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $230 =	
☐ 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).				
☐ 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	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	04/24/2020	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 10	Minus	** 20	= 0		x $50 =	0
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0		x $230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/MARGARET R BYARS/
*** 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.	

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.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/265,615	02/01/2019	Narendra Nath	META1100-11	7032

44654 7590 10/25/2019

Sprinkle IP Law Group
1301 W. 25th Street
Suite 408
Austin, TX 78705

EXAMINER	
KARMIS, ALISSA D	

ART UNIT	PAPER NUMBER
3683	

MAIL DATE	DELIVERY MODE
10/25/2019	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.

Office Action Summary	Application No. 16/265,615	Applicant(s) Nath et al.	
	Examiner ALISSA KARMIS	Art Unit 3683	AIA (FITF) Status No

-- 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 MONTHS 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 02/01/2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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 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 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 02/01/2019 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).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

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)).

** 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) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

1. The following non-final Office action is in response to Applicant's filing received on 02/01/2019 in which the instant application is a CON of 15/463,790, now US Patent 10,262,342.

Notice of Pre-AIA or AIA Status

2. The present application is being examined under the pre-AIA first to invent provisions.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on 02/01/2019 and 06/13/2019 have been considered by the examiner.

Status of the Claims

4. Claim 1 is pending.

Claim Objections

5. Claim 1 is objected to because of the following informalities: line 5 introduces "a first site or mobile application" into the claim and line 6 subsequently recites "a first site…or a first mobile of the applications". It appears that since "a first site or mobile application" is already introduced in line 5 of the claim, then line 6 could recite "the ~~a~~ first site…or the ~~a~~ first mobile ~~of the~~ application" Also, in the "passing the values" limitation, the word "to" appears to be missing in line 17 between "corresponding" and "the". Appropriate correction is respectfully requested.

Double Patenting

6. 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 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); *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 nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP §§ 706.02(l)(1) - 706.02(l)(3) for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the

form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

7. **Claim 1** is rejected on the ground of nonstatutory double patenting as being unpatentable over claim 1 of U.S. Patent No. 10,262,342. Although the claims at issue are not identical, they are not patentably distinct from each other because almost all of the elements of claim 1 in the instant application are recited in claim 1 of U.S. Patent No. 10,262,342 and any elements of claim 1 in the instant application that are not recited in claim 1 of U.S. Patent No. 10,262,342 would have been obvious to include.

For example, the method claim 1 of the instant application recites using a "server computer" for generating and serving the deep-linked ad while the method claim 1 of U.S. Patent No. 10,262,342 does not recite using a "server computer" for such generating and placing/serving steps. However, claim 8 of U.S. Patent No. 10,262,342 does recite using a "processor" for such generating and placing/serving steps. It would have been obvious to also include using a computer in the method claim 1 of U.S. Patent No. 10,262,342 since it is a computer-implemented method. Further, claim 1 of the instant application recites "mobile application" whereas claim 1 of U.S. Patent No. 10,262,342 does not explicitly recite "mobile" with application; however, it would have been obvious to also include "mobile" since the disclosure in U.S. Patent No. 10,262,342 specifically includes "mobile application". Also, the use of "programming variables" in the instant application is not considered patentably distinct

from the term "computer-readable field identifiers" in the patent since the disclosure in U.S. Patent No. 10,262,342 specifically includes "programming containers or variables". The chart below shows a mapping of the elements between the instant application and U.S. Patent No. 10,262,342.

Instant Application No. 16/265,615 Claim 1	U.S. Patent No. 10,262,342 Claim 1
generating, by a server computer, a deep-linked ad utilizing a universal variable map stored in a data store and accessible by the server computer, the universal variable map linking programming variables across multiple sites on the Internet and applications	obtaining or inferring computer-readable field identifiers from sites or applications on the Internet, the obtaining performed by a spidering module running on a computer having at least one processor and non-transitory computer memory; mapping the computer-readable field identifiers to one another using normalized variables stored in a normalized variable data database, the normalized variable data database representing a universal variable map of searchable classes and attributes of products or services on the Internet, the mapping linking computer-readable field identifiers of the sites or applications on the Internet; automatically programmatically generating a deep-linked ad utilizing the universal variable map,
serving, by the server computer, the deep-linked ad through a first site or mobile application, the deep-linked ad linking a first set of programming variables of a first site on the Internet or a first mobile of the applications with a second set of programming variables of a second site on the Internet or a second mobile application, the first set of programming variables being associated with the second set of programming variables in the universal variable map stored in the data store; and	the deep-linked ad linking at least one of a set of computer-readable field identifiers used by a first site or application on the Internet with at least one of a set of computer-readable field identifiers used by a second site or application on the Internet, wherein the first site and the second site are in same vertical or different verticals for which the spidering module is configured to search on the Internet; placing the deep-linked ad on a page of the first site or application on the Internet; and
in response to a user interacting with the deep-linked ad displayed on a user device through an instance of the first site on the Internet or the first mobile application	in response to user interaction with the deep-linked ad on the page of the first site or application displayed on a user device;

Instant Application No. 16/265,615 Claim 1	U.S. Patent No. 10,262,342 Claim 1
extracting, through the first site on the Internet or the first mobile application, values corresponding to the first set of programming variables;	extracting, from the user interaction with the deep-linked ad on the page of the first site or application, values corresponding to the at least one of the set of computer-readable field identifiers used by the first site or application on the Internet;
automatically directing the user device to the second site on the Internet or the second mobile application	automatically directing the user device to display a page of the second site or application;
passing the values corresponding the first set of programming variables to the second set of programming variables such that one or more fields corresponding to the second set of programming variables of the second site on the Internet or the second mobile application are explicitly or implicitly pre-populated with the values extracted through the first site on the Internet or the first mobile application	passing the values corresponding to the at least one of the set of computer- readable field identifiers used by the first site or application to the correspondingly linked at least one of the set of computer-readable field identifiers used by the second site or application such that the correspondingly linked at least one of the set of computer-readable field identifiers used by the second site or application are determined using the universal variable map and such that one or more fields on the page of the second set or application are explicitly or implicitly pre-populated with the values extracted from the user interaction with the deep-linked ad on the page of the first site or application without necessitating any pre-existing relationship between the pages

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See for example:

Schecter et al., US 2012/0144281 A1 pass parameters and values and pre-populate [0024], [0026], [0027], [0029], [0035]-[0038], Fig. 2.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALISSA KARMIS whose telephone number is (571)270-7277. The examiner can normally be reached on M-F 8am - 5pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on 571-272-6724. 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.

/ALISSA D KARMIS/
Examiner, Art Unit 3683

/ERIC W STAMBER/
Supervisory Patent Examiner, Art Unit 3683

Notice of References Cited	Application/Control No. 16/265,615	Applicant(s)/Patent Under Reexamination Nath et al.	
	Examiner ALISSA KARMIS	Art Unit 3683	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20120144281-A1	06-2012	Schechter; Greg	G06F16/9535	715/205
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/265,615	Nath et al.
	Examiner	Art Unit
	ALISSA KARMIS	3683

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST keyword search - see attached	10/24/2019	AK

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/ALISSA D KARMIS/ Examiner, Art Unit 3683	

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S3	41	spidering with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2013/12/04 13:32
S4	12	("2010/0293221").URPN.	USPAT	ADJ	ON	2013/12/04 14:06
S5	77	(map$3 or link$3) with (attribute or variable) with multiple with site	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:10
S6	2115	705/14.4.ccls.	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:12
S7	0	S5 and S6	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:12
S8	209	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:14
S9	1	S6 and S8	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:14
S10	1387	((map$3 or link$3) with (attribute or variable or content or field or context or term)) same (multiple with site)	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:17
S11	4	S10 and S6	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:18
S12	926	((map$3 or link$3) with (attribute or variable or content or field or context or term)) same (multiple near3 site)	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:19
S13	1979	((map$3 or link$3 or match$3) with (attribute or variable or content or field or context or term)) same ((multiple or various or several or similar) near3 (site or website or web-site))	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:21
S14	8	S6 and S13	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:21
S15	2671	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) same ((multiple or various or several or similar) near3 (site or website or web-site))	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:25
S16	697	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) near10 ((multiple or various or several or similar) near3 (site or website or web-site))	US-PGPUB; USPAT	ADJ	ON	2013/12/04 14:27
S17	331	((map$3 or link$3 or match$3) with	US-	ADJ	ON	2013/12/04

		(attribute or element or variable or content or field or term)) near10 ((multiple or various or several or similar) near3 (site or website or web-site)) and ((ad or advertisement) with link or URL)	PGPUB; USPAT			14:28
S19	3	("7788245").URPN.	USPAT	ADJ	ON	2013/12/04 14:34
S21	1	("20120030551").PN.	US-PGPUB; USPAT	OR	OFF	2013/12/04 16:31
S23	2	(ad or advertisement) with link$3 with (one or first) with (second or other or another) with (site or website or web-site or webpage or web-page) and (populat$3 with (second or other or another))	US-PGPUB; USPAT	ADJ	ON	2013/12/05 11:18
S24	108	populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 11:22
S25	4	pre-populat$3 with (second or other or another) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 11:23
S27	14	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)) and (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 11:36
S29	8	("7996259").URPN.	USPAT	ADJ	ON	2013/12/05 11:43
S30	1	"5937392".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:46
S31	1	"5960409".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:47
S32	1	"6029141".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:47
S33	1	"6058417".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:51
S34	1	"6330575".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:52
S35	1	"6401075".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:52
S36	1	"6601057".PN.	USPAT; USOCR	ADJ	ON	2013/12/05 11:52
S37	2	("6061660" | "6334111").PN.	US-PGPUB; USPAT	ADJ	ON	2013/12/05 12:37
S38	66	(ad or advertisement) with (relat$3 or relationship or common or similar) with first with (another or second) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 13:39
S39	5	("20030078832" | "20030229531" | "20040093327" | "20080046429" | "20080059258").PN.	US-PGPUB; USPAT	ADJ	ON	2013/12/05 14:02
S40	2708	(ad or advertisement) with (relat$3 or similar) with (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 14:13
S41	2599	(ad or advertisement) with (relat$3 or similar) with (webpage or website)	US-PGPUB;	ADJ	ON	2013/12/05 14:13

			USPAT			
S42	4066	(ad or advertisement) with (relat$3 or similar or associat$3) with (webpage or website)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 14:14
S44	0	("2009/0313127").URPN.	USPAT	ADJ	ON	2013/12/05 15:12
S45	676	(ad or advertisement) with (common or alternative) with (keyword or text)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 15:55
S46	171	(ad or advertisement) with (common or alternative) with (keyword or text) with (match$3 or link$3)	US-PGPUB; USPAT	ADJ	ON	2013/12/05 15:55
S47	11	("2002/0107882").URPN.	USPAT	ADJ	ON	2013/12/05 16:17
S48	11	("6092074" | "5630117" | "5708825" | "5745360" | "6651058" | "6581065" | "5634121" | "6546399" | "6122647" | "6654737" | "6658623").PN.	USPAT	ADJ	ON	2013/12/05 16:18
S50	1	("20070239494").PN.	US-PGPUB; USPAT	OR	OFF	2013/12/06 11:31
S51	56	("20020010639" | "20020087367" | "20020169643" | "20030040944" | "5715453" | "20020194037" | "20040030593" | "20050246275" | "20100106623" | "3665397" | "20020133430" | "20060190314" | "20020186144" | "20020087367" | "20020165735" | "20070239494" | "20020077871" | "20070094055" | "20070179819" | "20020010604" | "20020007327" | "20040148179" | "20010034723" | "20020065688" | "20030004761" | "20040006498" | "20040010338" | "5289369" | "6477503" | "20030158761" | "20020198758" | "20030046117" | "20040030593" | "20050216139" | "20050246275" | "6711548" | "20020165735" | "20070198311" | "20070239494" | "20020007327" | "20030061145" | "20040148179" | "20020069093" | "20020184041" | "20100106608" | "6519576" | "7124096" | "7769601" | "20040107144" | "7617136" | "20050216139" | "20020186144" | "20010056363" | "4965821" | "5253166" | "5389773" | "6360254" | "6539424" | "6757710" | "20030061145" | "20030195811" | "20030195811" | "20070198311" | "20030061146" | "20070027708" | "5066853" | "7050986" | "8108231").PN.	US-PGPUB; USPAT	ADJ	ON	2013/12/06 11:33
S54	11	("6092074" | "5630117" | "5708825" | "5745360" | "6651058" | "6581065" | "5634121" | "6546399" | "6122647" | "6654737" | "6658623").PN.	US-PGPUB; USPAT	ADJ	ON	2013/12/06 16:59
S55	6135	(universal or common or general) with (term or variable or text) with (map or database)	US-PGPUB; USPAT	ADJ	ON	2013/12/11 11:43

S58	190	("2005/0222989").URPN.	USPAT	ADJ	ON	2013/12/11 12:04
S59	19	((deep adj link$3) or deep-link$3) with (ad or advertisement) and hover$3	US-PGPUB; USPAT	ADJ	ON	2013/12/11 16:32
S61	53	(select$3 or activat$3 or interact$3) near5 (ad or advertisement) near5 hover$3	US-PGPUB; USPAT	ADJ	ON	2013/12/11 16:40
S62	1278	spidering	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:43
S63	126	(ad or advertisement) with link$3 with (one or first) with (second or other or another) with (site or website or web-site or webpage or web-page)	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:43
S64	27	pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:49
S65	209	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:52
S66	3618	G06Q30/02.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:59
S67	0	G06Q30/0257.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 01:59
S68	0	G06Q30/0277.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:00
S69	0	G06Q30/0276.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:00
S70	0	G06Q30/0276.CIPS.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:00
S71	1502	G06F17/24.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:01
S72	0	G06F17/30864.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:01
S73	0	G06F17/30864.CIPS.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:01
S74	26673	G06Q30/00.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:01
S75	0	G06Q30/257.CIPP.	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:06
S76	33	((deep adj link$3) or deep-link$3) with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:09
S77	1574	G06Q30/02.CIPP. and ad	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:10

S78	0	G06Q30/02.CLPP. and (deep-link$3 adj (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:10
S79	0	G06Q30/02.CLPP. and (deep-link$3 near5 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S80	0	G06Q30/02.CLPP. and (deep-link$3 near10 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S81	723	G06Q30/02.CLPP. and (link near10 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S82	500	G06Q30/02.CLPP. and (link near3 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S83	69	G06Q30/02.CLPP. and (link near3 (ad or advertisement)) and hover$3	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:11
S84	0	G06F17/30864.CLPP. and ((crawl$3 or spider$3 or extract$3) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:13
S85	0	G0630/00.CLPP. and ((crawl$3 or spider$3 or extract$3) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2013/12/12 02:14
S86	122355	(map$3 or link$3) with (attribute or variable)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:20
S87	122355	(map$3 or link$3) with (attribute or variable or (programming adj container))	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:35
S88	1	(map$3 or link$3) same (programming adj container)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:35
S89	55	(programming adj container)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:36
S90	346	(program$4 adj container)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:36
S91	4	(programming adj container) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/20 16:52
S92	2493	(program$4 near3 (container or variable)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 10:52
S93	2215	(program$4 near3 (container or variable)) and (link$3 or map$4) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 10:53
S94	333	(program$4 adj (container or variable)) and (link$3 or map$4) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 10:53
S95	47	((program$4 adj (container or variable)) same (link$3 or map$4)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 10:53
S96	675	(map$3 or link$3) with (form or field or (site adj map) or header or tag) with multiple with site	US-PGPUB; USPAT	ADJ	ON	2014/06/24 11:02

S97	23	((map$3 or link$3) with (form or field or (site adj map) or header or tag) with multiple with site) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 11:02
S98	12	((map$3 or link$3 or match$3) with (field or (site adj map) or header or tag) with multiple with site) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 11:08
S99	27	("2008/0010142").URPN.	USPAT	ADJ	ON	2014/06/24 12:39
S100	2	("2012/0123859").URPN.	USPAT	ADJ	ON	2014/06/24 12:56
S101	214	indexing near3 (website or (web adj site) or web-site)	USPAT	ADJ	ON	2014/06/24 13:04
S102	75	index$3 near3 (website or (web adj site) or web-site) same (map$4 near3 field or tag or header or (site adj map))	USPAT	ADJ	ON	2014/06/24 13:05
S103	194	index$3 near3 (website or (web adj site) or web-site) same (map$4 near3 field or tag or header or (site adj map))	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:06
S104	194	(index$3 near3 (website or (web adj site) or web-site)) same (map$4 near3 field or tag or header or (site adj map))	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:06
S105	91	(index$3 near3 (website or (web adj site) or web-site)) same (map$4 near3 field or tag or header or (site adj map)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:06
S106	68	(advertising or advertisement) and ((first same second same page same site) same (match$3 or map$3 or link$3) same (travel or destination or from))	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:28
S107	92	(advertising or advertisement) and ((first same second same (page or webpage or (web adj page) or web-page) same (site or website or (web adj site) or web-site)) same (match$3 or map$3 or link$3) same (travel or destination or from))	US-PGPUB; USPAT	ADJ	ON	2014/06/24 13:29
S108	1	("20080201220").PN.	US-PGPUB; USPAT	OR	OFF	2014/06/24 16:57
S109	1825	((generat$5 or creat$5) with (ad or advertisment) with (field or category))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:53
S110	996	S109 and ((map or mapping))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:54
S111	355	S110 and ((tavel or plane or airplane or flight) same (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:54
S112	330	S111 and ((click or clicking or hyperlink) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:54
S113	430	((map or mapping) with (ad or advertisement) with (category or field or container))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:57
S114	155	S113 and ((click or clicking or hyperlink) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 20:57

S115	484	S110 and ((travel or plane or airplane or flight) same (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:16
S116	443	S115 and ((click or clicking or hyperlink) with (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:16
S117	69	standardiz$3 with (website or web-site or (web adj site)) with (field or form or section)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:19
S118	5	standardiz$3 with (website or web-site or (web adj site)) with (field or form or section) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:20
S119	5	(standardiz$5 or normaliz$5) with (website or web-site or (web adj site)) with (field or form or section) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:20
S120	0	(standardiz$5 or normaliz$5) near5 (website or web-site or (web adj site)) with (field or form or section) same (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:21
S121	34	(standardiz$5 or normaliz$5) near5 (website or web-site or (web adj site)) with (field or form or section)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:21
S122	11	("6851087").URPN.	USPAT	ADJ	ON	2014/06/29 23:23
S123	2	(standardiz$5 or normaliz$5) near5 (field or form or section) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:34
S124	3	(standardiz$5 or normaliz$5) near5 (field or form or section or tag or header or (site adj map)) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:35
S125	4	(similar or similarities) near5 (field or form or section or tag or header or (site adj map)) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:37
S126	4	((similar or similarities) near5 (field or form or section or tag or header or (site adj map))) same (multiple adj (website or web-site or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:38
S127	10037	similar near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:47
S128	102	similar near3 (field or section) near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:47
S129	47	similar near3 (field or section) near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/29 23:48
S130	11	("6851087").URPN.	USPAT	ADJ	ON	2014/06/30 01:00
S131	30	common near3 (field or section) near3 (website or web-site or (web adj site) or webpage or web-page or (web adj page)) and (advertising or advertisement)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 01:19

S132	8	("7865414").URPN.	USPAT	ADJ	ON	2014/06/30 01:25
S133	11118	(advertising or advertisement) near5 (match$3 or map$4)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 02:58
S134	256	(advertising or advertisement) near5 (match$3 or map$4) near5 (field or (search adj box) or header or title or container or box)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 02:59
S135	100	S134 and "705".clas.	US-PGPUB; USPAT	ADJ	ON	2014/06/30 03:01
S136	24	(deep-link$3 or (deep adj link$3)) near3 (ad or advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:29
S137	19	(deep-link$3 or (deep adj link$3)) near3 (ad or advertisement or advertising) and (match$3 or mapping)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:29
S138	25	(deep-link$3 or (deep adj link$3)) near10 (ad or advertisement or advertising) and (match$3 or mapping)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:32
S139	36	(deep-link$3 or (deep adj link$3)) near10 (ad or advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:35
S140	19963	(ad or advertisement or advertising) near5 link	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:45
S141	15598	(ad or advertisement or advertising) near3 link	US-PGPUB; USPAT	ADJ	ON	2014/06/30 05:45
S142	73	(ad or advertisement or advertising) near3 link same (similar near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 06:55
S143	21	(ad or advertisement or advertising) near3 link with (similar near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 06:55
S144	39	(ad or advertisement or advertising) near10 link with (similar near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:08
S145	403	(ad or advertisement or advertising) near10 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:08
S146	243	(ad or advertisement or advertising) near5 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page))	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:08
S147	175	(ad or advertisement or advertising) near5 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page)) and (map$4 or match$3)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:10
S148	23	(ad or advertisement or advertising) near5 link with ((similar or common or related) near5 (website or site or web-site or webpage or web-page)) same (map$4 or match$3)	US-PGPUB; USPAT	ADJ	ON	2014/06/30 07:10
S149	1	("20090144124").PN.	US-	OR	OFF	2014/06/30

			PGPUB; USPAT			11:45
S150	0	advertis$5 with based with (website or web-site or (web adj site) or (web adj page)) with (field near3 (name or description or identifier)) with mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:29
S151	0	advertis$5 with based with (website or web-site or (web adj site) or (web adj page)) with (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:29
S152	0	advertis$5 with based with (website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S153	0	advertis$5 with based same (website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S154	0	advertis$5 same based same (website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S155	0	advertis$5 same based same (webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S156	164	(webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:30
S157	0	(webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping same advertis$5	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:31
S158	62	(webpage or website or web-site or (web adj site) or (web adj page)) same (field near3 (name or description or identifier)) same mapping and advertis$5	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:31
S159	82	(webpage or website or web-site or (web adj site) or (web adj page)) with map$4 with (field near3 (name or description or identifier))	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:37
S160	73	S159 not S158	US-PGPUB; USPAT	ADJ	ON	2014/10/07 12:38
S161	1	("20100312667").PN.	US-PGPUB; USPAT	OR	OFF	2014/10/07 13:00
S162	2184	mapping with (field near3 (label or tag or identifier or name))	US-PGPUB; USPAT	ADJ	ON	2014/10/07 14:55
S163	9	mapping with (field near3 (label or tag or identifier or name)) and (match$3 near5 advertis$5)	US-PGPUB; USPAT	ADJ	ON	2014/10/07 14:55
S164	8	("20080120305" | "6847967" | "6895551" | "20110258535" | "20020156799" | "20110093773" | "6601066" | "20110119220" | "6601066" |	US-PGPUB; USPAT	ADJ	ON	2015/02/17 10:47

		"6847967").PN.				
S165	171	map$4 near5 field near5 ((web adj site) or website or webpage or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/02/17 11:04
S166	13	map$4 near5 label near5 ((web adj site) or website or webpage or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/02/17 11:25
S167	3319	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:32
S168	2975	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and (link$3 or hyperlink)	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:37
S169	1285	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and (link$3 or hyperlink) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:38
S170	958	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and ((link$3 or hyperlink) same (field or label)) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:40
S171	490	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and ((link$3 or hyperlink) same (field or label)) and (populat$3 or pre-populat$3) and (advertisement or advertising)	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:42
S172	39	map$4 same (field or label) same((web adj site) or website or webpage or (web adj page)) and ((link$3 or hyperlink) same (field or label)) and (populat$3 or pre-populat$3) and (advertisement or advertising) and vertical and heuristic	US-PGPUB; USPAT	ADJ	ON	2015/02/17 16:45
S173	96	("5905862").URPN.	USPAT	ADJ	ON	2015/02/18 16:43
S174	8669	(match$3 or map$4) near5 (field near3 (identifier or name or ID))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:03
S175	697	(match$3 or map$4) near5 (field near3 (identifier or name or ID)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site)))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:04
S176	243	(match$3 or map$4) near5 (field near3 (identifier or name or ID)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site))) and advertising	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:05
S177	309	(match$3 or map$4) near5 (field near3 (identifier or name or ID or defin$5)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site))) and advertising	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:14
S178	800	semantic adj map$4	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:19
S179	4	semantic adj map$4 and (field adj (identifier or ID))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:19

S180	0	("2011/0016228").URPN.	USPAT	ADJ	ON	2015/04/24 09:28
S181	10	semantic adj map$4 and (field adj (identifier or ID or descript$3))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:30
S182	2	semantic adj map$4 adj dictionary and (field adj (identifier or ID or descript$3))	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:36
S183	2	semantic adj map$4 adj dictionary	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:37
S184	0	semantic adj map$4 and map$4 near4 data near4 field near4 (descrip$3 or identifier or definition)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:38
S185	7	semantic adj map$4 and map$4 with data with field with (descrip$3 or identifier or definition)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 09:38
S186	0	advertising with using with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 10:11
S187	3	(advertising or advertisement or (deep near3 ad)) with (us$3 or based) with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 10:12
S188	3	(advertising or advertisement or ad) with (us$3 or based) with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 10:14
S189	17	(advertising or advertisement or ad) same (us$3 or based) with (semantic adj map$4)	US-PGPUB; USPAT	ADJ	ON	2015/04/24 10:15
S190	52	("2010/0063880").URPN.	USPAT	ADJ	ON	2015/04/24 10:16
S191	439	map$4 same (field adj identifier)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:13
S192	3	map$4 same (field adj identifier) and (link$3 near3 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:13
S193	73	map$4 same (field near4 identifier) and (link$3 near3 (ad or advertisement))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:13
S194	666	map$4 same (field near4 identifier) and (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:15
S195	190	map$4 same (field near4 identifier) and ((ad or advertisement) same identifier)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:15
S196	281	map$4 same (field near4 (ID or identifier)) and ((ad or advertisement) same identifier)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:17
S197	342	map$4 same (field near4 (ID or identifier or name)) and ((ad or advertisement) same (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:18
S198	52	map$4 near10 (field near4 (ID or identifier or name)) and ((ad or advertisement) near20 (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:18

S199	1	("6490601").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 18:21
S200	128	map$4 same (field near4 (ID or identifier or name)) and ((ad or advertisement) near20 (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:23
S201	128	map$4 same (field near4 (ID or identifier or names)) and ((ad or advertisement) near20 (field near4 (ID or identifier or name)))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:23
S202	932	map$4 same (field near4 (ID or identifier or names)) and ((ad or advertisement) same link$3)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 18:24
S203	1	("20050144048").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 18:29
S204	337	("20010011250" | "5537586" | "5987440" | "6192380" | "6199079" | "6327598" | "6345278").PN. OR ("6490601").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2015/06/22 23:08
S205	113	(ad or advertis$5) same (semantic adj (match$3 or map$4))	US-PGPUB; USPAT	ADJ	ON	2015/06/22 23:31
S206	1	("20110016228").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 23:38
S207	1	("20100070448").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 23:39
S208	1	("20100063880").PN.	US-PGPUB; USPAT	OR	OFF	2015/06/22 23:43
S209	2	("6718551" | "7752642").PN.	US-PGPUB; USPAT	ADJ	ON	2015/06/22 23:47
S210	12	(webpage or (web adj page)) near3 content with (field adj name)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 23:51
S211	15	(webpage or (web adj page) or website or (web adj site)) near3 content with (field adj name)	US-PGPUB; USPAT	ADJ	ON	2015/06/22 23:53
S212	16	(map$3 or link$3 or match$3) same (common or universal or global) same (field near3 (name or identifier or label)) same (plurality or multiple) near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:06
S213	23	(map$3 or link$3 or match$3) same (common or universal or global or standard) same (field near3 (name or identifier or label)) same (plurality or multiple) near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:06
S214	3178	(map$3 or link$3 or match$3) near5 similar near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:10

S215	4035	(map$3 or link$3 or match$3 or connect$3) near5 similar near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:10
S216	10	(map$3 or link$3 or match$3 or connect$3) near5 similar near5 field near5 (website or site or (web adj site) or webpage or page or (web adj page))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:11
S217	104	(map$3 or link$3 or match$3 or connect$3) near5 similar near5 (website or site or (web adj site) or webpage or page or (web adj page)) and (map$3 or link$3 or match$3 or connect$3) near5 ((field near3 (name or label or identifier)) or (data adj label))	US-PGPUB; USPAT	ADJ	ON	2015/06/23 00:14
S218	18	("2009/0024718").URPN.	USPAT	ADJ	ON	2015/06/23 00:29
S219	7	deep-link$3 near3 (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2015/06/23 01:44
S221	44	((deep adj link$3) or deep-link$3) with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2015/06/23 01:45
S222	8	deep-link$3 with (ad or advertisement)	US-PGPUB; USPAT	ADJ	ON	2015/06/23 14:57
S223	2217	map$3 with field with identifier	US-PGPUB; USPAT	OR	ON	2015/10/16 16:37
S224	1296	map$3 with field near5 identifier	US-PGPUB; USPAT	OR	ON	2015/10/16 16:38
S225	697	map$3 near5 field near5 identifier	US-PGPUB; USPAT	OR	ON	2015/10/16 16:38
S226	24	map$3 near5 field near5 identifier and heuristic	US-PGPUB; USPAT	OR	ON	2015/10/16 16:38
S227	1	("6363376").PN.	US-PGPUB; USPAT	OR	OFF	2015/10/16 16:39
S228	1	("20090164581").PN.	US-PGPUB; USPAT	OR	OFF	2015/10/16 16:39
S229	1	("20020186255").PN.	US-PGPUB; USPAT	OR	OFF	2015/10/16 16:39
S230	1	("20040243520").PN.	US-PGPUB; USPAT	OR	OFF	2015/10/16 16:39
S231	5	(US-20020186255-$ or US-20040243520-$ or US-20090164581-$).did. or (US-7216292-$ or US-6363376-$).did.	US-PGPUB; USPAT	OR	ON	2015/10/16 16:41
S232	1	S231 and map$5 with field with identifier	US-PGPUB; USPAT	OR	ON	2015/10/16 16:41
S233	3	S231 and map$5 with field with (name or identifier)	US-PGPUB;	OR	ON	2015/10/16 16:42

			USPAT			
S234	3	S231 and map$5 with field with (name or identifier) same (webpage or (web adj page) or website or (web adj site))	US-PGPUB; USPAT	OR	ON	2015/10/16 16:48
S235	279	map$5 with field with (name or identifier) same (webpage or (web adj page) or website or (web adj site))	US-PGPUB; USPAT	OR	ON	2015/10/16 16:48
S236	5	(("7216292") or ("20040243520") or ("20090164581") or ("20070250520") or ("20110016228")).PN.	US-PGPUB; USPAT	OR	OFF	2016/08/12 12:58
S237	12	(ad or advertis$5) near5 second near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site)) with based with first near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site)) near5 (interaction or click$3 or hover$3 or select$3)	US-PGPUB; USPAT	OR	ON	2016/08/12 15:10
S238	3244	(ad or advertis$5) near5 related near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site))	US-PGPUB; USPAT	OR	ON	2016/08/12 16:13
S239	322	(select$3 or plac$3) near3 (ad or advertis$5) near5 related near5 (page or webpage or web-page or (web adj page) or site or website or web-site or (web adj site))	US-PGPUB; USPAT	OR	ON	2016/08/12 16:14
S242	5996	match$3 with field near (identifier or ID or name)	US-PGPUB; USPAT	OR	ON	2016/08/15 14:01
S246	2	match$3 with field near3 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:05
S247	2	match$3 with field near5 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:05
S248	7	(map$4 or match$3 or similar) with field near5 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:06
S249	8	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name) with (across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:17
S250	8	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name) with (bewteen or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:20
S251	57	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name) with (between or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/15 14:20
S252	61	(map$4 or match$3 or equal or equat$3) with field near5 (identifier or ID or name or label) with (between or across or among$2) same web$5	US-PGPUB; USPAT	OR	ON	2016/08/16 13:22
S253	5891	(find$3 or search$3) near5 related near5 web$6	US-PGPUB; USPAT	OR	ON	2016/08/16 17:12
S254	105	(find$3 or search$3) near5 related near5	US-	OR	ON	2016/08/16

		web$6 and determin$5 near5 web$6 near5 similar	PGPUB; USPAT			17:14
S255	6	(find$3 or search$3) near5 related near5 web$6 and determin$5 near5 web$6 near5 similar and (tag or metatag) and (header or (site adj map))	US-PGPUB; USPAT	OR	ON	2016/08/16 17:15
S256	19990	vertical same horizontal same web$6	US-PGPUB; USPAT	OR	ON	2016/08/16 17:18
S257	274	vertical same horizontal same web$6 same (categor$7 or classif$7)	US-PGPUB; USPAT	OR	ON	2016/08/16 17:18
S258	94	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3)	US-PGPUB; USPAT	OR	ON	2016/08/16 17:19
S259	82	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map))	US-PGPUB; USPAT	OR	ON	2016/08/16 17:19
S260	92	vertical same horizontal same web$6 same (categor$7 or classif$7) and (pars$3 or crawl$3 or spider$3) and (header or tag or meta$5 or (site adj map) or field or drop$4)	US-PGPUB; USPAT	OR	ON	2016/08/16 17:39
S261	45	sister near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/16 17:46
S262	17	pre-populat$3 near3 (field or form) with value with web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 10:15
S263	0	("2006/0212434").URPN.	USPAT	OR	ON	2016/08/17 10:32
S264	2	("5960411" | "6976090").PN.	USPAT	OR	ON	2016/08/17 10:33
S265	310	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) with web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 10:37
S266	13	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) and (pass$3 or transfer$4) near5 (value or parameter or attribute) near5 web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 11:20
S267	13	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) and (exchang$3 or pass$3 or transfer$4) near5 (value or parameter or attribute) near5 web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 11:20
S268	40	(prefill$3 or pre-fill$3 or prepopulat$3 or pre-populat$3) near3 (field or form) and (exchang$3 or pass$3 or transfer$4 or transmi$5) near5 (value or parameter or attribute) near5 web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 11:20
S269	1602	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5	US-PGPUB; USPAT	ADJ	ON	2016/08/17 14:15
S270	695	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner	US-PGPUB; USPAT	ADJ	ON	2016/08/17 14:20
S271	321	(dynamic or real-time) near5 (generat$3 or	US-	ADJ	ON	2016/08/17

		creat$3 or select$3) near10 advertis$5 and banner and (chang$3 or modif$7) near3 (content or object or display)	PGPUB; USPAT			14:21
S272	101	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner and (chang$3 or modif$7) near3 (content or object or display) and hover$3	US-PGPUB; USPAT	ADJ	ON	2016/08/17 14:23
S273	14	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and banner and (chang$3 or modif$7) near3 (content or object or display) near5 advertis$5 and hover$3	US-PGPUB; USPAT	ADJ	ON	2016/08/17 15:11
S274	20	(dynamic or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and (chang$3 or modif$7) near3 (content or object or display) near5 advertis$5 and hover$3	US-PGPUB; USPAT	ADJ	ON	2016/08/17 15:12
S275	17	(dynamic$4 or real-time) near5 (generat$3 or creat$3 or select$3) near10 advertis$5 and (chang$3 or modif$7) near3 (content or object or display) near5 advertis$5 with user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 15:25
S276	203	(dynamic$4 or real-time) near5 advertis$5 and (chang$3 or modif$7) near5 advertis$5 with user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 15:31
S277	8631	advertis$5 with based with user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:15
S278	6737	advertis$5 with based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:15
S279	5179	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3)	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:15
S280	0	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web%6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:17
S281	555	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:17
S282	261	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web$6 and related near3 web$6	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:18
S283	5	advertis$5 near5 based near5 user near5 (interaction or behavior or select$3 or click$3 or hover$3) with web$6 and related near3 web$6 near5 link$3	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:19
S284	28	advertis$5 near5 based near5 user near5 web$6 near5 link$3	US-PGPUB; USPAT	ADJ	ON	2016/08/17 16:22
S285	392	link$3 with related with (web$6 or site or page) with together	US-PGPUB; USPAT	ADJ	ON	2016/08/18 08:57
S286	45	link$3 with related with (web$6 or site or page) with together and (crawl$3 or	US-PGPUB;	ADJ	ON	2016/08/18 08:57

		spider$3)	USPAT			
S287	12	advertiser with search$3 with publisher with similar$5 with (content or product or service or categor$3 or horizontal or vertical)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:05
S288	7	advertiser near5 (locat$3 or find$3 or choos$3 or search$3) near5 (host or (third adj part$3) or publisher) with similar$5 near5(content or product or service or categor$3 or horizontal or vertical)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:06
S289	1	search engine optimization tag	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:21
S290	1	(search adj engine) with (optimization adj tag)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:22
S291	46	(search adj engine adj tag)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 09:22
S292	4	(search adj box adj tag)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:08
S293	7	pars$3 near10 (name or title) near10 (search$3 near3 box)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:41
S294	36	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 (search$3 near3 box)	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:45
S295	189	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 ((search$3 near3 box) or (form near3 field))	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:46
S296	56	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 ((search$3 near3 box) or (form near3 field)) and advertis$5	US-PGPUB; USPAT	ADJ	ON	2016/08/18 10:47
S297	221	(scan$4 or pars$3 or crawl$3 or spider$3) near10 (name or title or code or tag or metatag or meta-tag or (meta adj tag)) near10 ((search$3 near3 box) or ((entry or input or form or submission) near3 (form or field))) and advertis$5	US-PGPUB; USPAT	ADJ	ON	2016/08/18 11:12
S298	5	(US-20020023108-$ or US-20010054046-$ or US-20010037361-$ or US-20050209874-$ or US-20060212434-$).did.	US-PGPUB	OR	ON	2016/08/22 16:43
S299	6	(US-20020023108-$ or US-20010054046-$ or US-20010037361-$ or US-20050209874-$ or US-20060212434-$ or US-20040088713-$).did.	US-PGPUB	OR	ON	2016/08/22 16:44
S300	42244	(related or similar) near3 web$6	US-PGPUB	OR	ON	2016/08/22 16:48
S301	3087	(related or similar) near3 web$6 near5 (link$3 or index$3)	US-PGPUB	OR	ON	2016/08/22 16:48
S302	1673	(related or similar) near3 web$6 near5 (link$3 or index$3) and advertis$5	US-PGPUB	OR	ON	2016/08/22 16:48

S303	329	(related or similar) near3 web$6 near5 (link$3 or index$3) same advertis$5	US-PGPUB	OR	ON	2016/08/22 16:48
S304	480	(related or similar) near3 web$6 near5 (link$3 or index$3) same advertis$5	US-PGPUB; USPAT	OR	ON	2016/08/22 16:49
S305	140	content near3 (related or similar) near3 web$6 near5 (link$3 or index$3) same advertis$5	US-PGPUB; USPAT	OR	ON	2016/08/22 16:50
S307	16	web$6 with match$3 with (field or form) with (another or other) with web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:21
S308	224	web$6 with (map$4 or link$3) with (field or box) with (another or other or similar) with web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:23
S309	407	web$6 with (map$4 or link$3 or associat$3 or correlat$3) with (field or box) with (another or other or similar) with web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:27
S310	44	web$6 near3 (map$4 or link$3 or associat$3 or correlat$3) near10 (field or box) near10 (another or other or similar) near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:27
S311	0	sav$3 near5 similarit$3 near3 between near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:41
S312	11	stor$3 near5 similarit$3 near3 between near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:41
S313	12	(extract$3 or find$3) near5 similarit$3 near3 between near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:51
S314	16	(extract$3 or find$3) near5 similarit$3 near3 (among$2 or between) near3 web$6	US-PGPUB; USPAT	OR	ON	2016/08/22 17:57
S315	15	"8234134"	US-PGPUB; USPAT	OR	ON	2016/08/22 19:16
S316	12	705/14.73.CCLS. and (deep near5 link$3)	US-PGPUB; USPAT	OR	ON	2017/02/22 10:41
S317	156	705/14.73.CCLS. and (map$4 near10 (variable or field or form))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:44
S318	101	705/14.73.CCLS. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:45
S319	315	G06Q30/0277.CPC. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:51
S320	0	G06Q30/0277.CPC. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site)) and ((pre-populat$3 or prepopulat$3) near10 (field or form))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:52
S321	24	705/14.51.CCLS. and (map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT	OR	ON	2017/02/22 10:54
S322	11	705/14.51.CCLS. and (deep near5 link$3)	US-	OR	ON	2017/02/22

			PGPUB; USPAT			10:54
S323	67	(deep near5 link$3) near10 advertis$5	US-PGPUB; USPAT; EPO; JPO	OR	ON	2017/02/22 10:59
S324	15129	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2017/02/22 11:00
S325	322	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2017/02/22 11:01
S326	2	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and ((pre-populat$3 or prepopulat$3) near10 (field or form or value))	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2017/02/22 11:02
S327	73	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	US-PGPUB; USPAT; EPO; JPO	ADJ	ON	2017/02/22 11:02
S328	1	(map$4 near10 (variable or field or form)) and (link$3 near5 (web or page or site))	EPO; JPO	OR	ON	2017/02/22 11:04
S329	0	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	EPO; JPO	ADJ	ON	2017/02/22 11:06
S330	1	(deep near5 link$3) near10 advertis$5	EPO; JPO	OR	ON	2017/02/22 11:06
S331	1	("6662340").PN.	US-PGPUB; USPAT	OR	OFF	2017/02/22 13:00
S337	1	(deep near5 link$3) near10 advertis$5	FPRS; EPO; JPO	OR	ON	2017/02/22 13:15
S338	0	((map$3 or link$3) with (attribute or variable)) same (multiple with site) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:15
S339	13	((map$3 or link$3) with (attribute or variable)) same (multiple with site)	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:15
S340	23	((map$3 or link$3) with (attribute or variable or field)) same (multiple with site)	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:17
S341	3	((map$3 or link$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site)) and advertis$5	EPO; JPO	ADJ	ON	2017/02/22 13:20
S342	13	((map$3 or link$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site)) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:20
S343	21	((map$3 or link$3 or match$3) with	FPRS;	ADJ	ON	2017/02/22

		(attribute or variable or field)) same ((among or plurality or multiple) with (web or site)) and advertis$5	EPO; JPO			13:22
S344	25	((map$3 or link$3 or match$3) with (attribute or variable or field)) same ((among or plurality or multiple) with (web or site or page)) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:25
S345	4	S344 not S343	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:26
S346	0	map$4 near10 (webpage or website) near10 (field or form) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:27
S347	1	map$4 near10 (webpage or website or web or site or page) near10 (field or form) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:28
S348	45	(match$3 or link$4 or map$4) near10 (webpage or website or web or site or page) near10 (field or form) and advertis$5	FPRS; EPO; JPO	ADJ	ON	2017/02/22 13:28
S374	10	pre-populat$3 near5 (field or value) near5 (online or web$5)	FPRS; EPO; JPO	OR	ON	2017/02/28 08:58
S375	33	(automatic$4 near5 (fill$3 or pre-fill$3 or populat$3 or pre-populat$3)) near5 (field or value) near5 (online or web$5)	FPRS; EPO; JPO	OR	ON	2017/02/28 09:00
S376	42	((map$3 or link$3) with (form or field or (site adj map) or header or tag) with multiple with site) same (advertising or advertisement)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 17:45
S378	97	((deep near5 link$3) or deep-link$3) near10 advertis$5	US-PGPUB; USPAT; FPRS; EPO; JPO	OR	ON	2018/03/29 21:38
S379	34	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site)) and (ad or advertisement)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 21:42
S380	164	(pre-populat$3 same (second or other or another) same (webpage or website or web-page or web-site or app or device or application)) and (ad or advertisement)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 21:56
S381	130	S380 not S379	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 21:56
S382	57	(standardiz$5 or normaliz$5) near5 (field or form or section or tag or header or (site adj map)) same ((across or multiple or	US-PGPUB; USPAT	ADJ	ON	2018/03/29 21:59

		plurality) adj (website or web-site or (web adj site) or page or webpage or (web adj page) or app or application))				
S383	112	(deep-link$3 or (deep adj link$3)) near10 (ad or advertisement or advertising)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 22:06
S384	561	((map$3 or link$3 or match$3) with (attribute or element or variable or content or field or term)) near10 ((multiple or various or several or similar) near3 (site or website or web-site)) and ((ad or advertisement) with link or URL)	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 22:07
S385	438	(match$3 or map$4) near5 (field near3 (identifier or name or ID or defin$5)) and (link$3 near5 (webpage or (web adj page) or website or (web adj site))) and advertising	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 22:07
S386	474	extract$3 with (input or select$3 or value) with city	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 22:09
S387	60	extract$3 with (input or select$3 or value) with city and (pass or populat$3 or prepopulat$3 or pre-populat$3) with city	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 22:10
S388	226	extract$3 with city and (pass or populat$3 or prepopulat$3 or pre-populat$3) with city	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 22:11
S389	82	extract$3 with city and (pass$3 or populat$3 or prepopulat$3 or pre-populat$3) with city and advertis$6	US-PGPUB; USPAT; FPRS; EPO; JPO	ADJ	ON	2018/03/29 22:12
S390	1	("20090055354").PN.	US-PGPUB; USPAT	OR	OFF	2018/03/29 22:15
S391	1	("20070256005").PN.	US-PGPUB; USPAT	OR	OFF	2018/03/29 22:18
S392	1	("10262342").PN.	US-PGPUB; USPAT	OR	OFF	2019/10/24 10:11
S393	1	("20120144281").PN.	US-PGPUB; USPAT	OR	OFF	2019/10/24 11:24
S394	46	pre-populat$3 same reservation same date	US-PGPUB; USPAT	OR	ON	2019/10/24 11:57

S395	1407	pre-populat$3 same date	US-PGPUB; USPAT	OR	ON	2019/10/24 11:58
S396	60	pre-populat$3 same pass$3 near5 (value or number or date)	US-PGPUB; USPAT	OR	ON	2019/10/24 11:59

10/24/2019 12:03:21 PM
C:\Users\akarmis\Documents\EAST\Workspaces\16265615-DeepLinkAd - Copy.wsp

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INFORMATION DISCLOSURE STATEMENT

Application Number	Not Yet Assigned
Filing or 371 (c) Date:	Herewith
First Named Inventor	Narendra Nath
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	META1100-11

Sheet 1 of 2

NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), 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	T[2]
	C1	Office Action issued for U.S. Patent Application No. 13/308,004, mailed December 18, 2013, 14 pages.	
	C2	Office Action issued for U.S. Patent Application No. 13/308,004, mailed July 2, 2014, 13 pages.	
	C3	Office Action issued for U.S. Patent Application No. 13/308,004, mailed June 26, 2015, 22 pages.	
	C4	Office Action issued for U.S. Patent Application No. 13/308,004, mailed September 6, 2016, 13 pages.	
	C5	"New Advertising Technologies Delivers Results for Travel Marketers: TripAdvisors Bettern Athan Banner Advertising," December 3, 2011, [Retrieved from <<https://tripadvisor.com/PressCenter-i2369-cl-Press_Press_Releases.html>>], 2 pages.	
	C6	Notice of Allowance issued for U.S. Patent Application No. 13/308,004, mailed March 8, 2017, 22 pages.	
	C7	MYLLYMAKI, "Effective Web Data Extraction with Standard XML Technologies," Computer Networks 39 (2002) 635-644.	
	C8	Office Action issued for U.S. Patent Application No. 15/463,790, mailed October 11, 2017, 10 pages.	
	C9	Notice of Allowance issued for U.S. Patent Application No. 15/463,790, mailed June 4, 2018, 11 pages.	
	C10	Aaron Rubin, Are You Experienced - The Copyright Implications of Web Site Modification Technology, 89 Calif. L. Rev. 817 (2001), 34 pages.	
	C11	Office Action issued for U.S. Patent Application No. 15/725,138, mailed April 16, 2018, 10 pages.	
	C12	Notice of Allowance for U.S. Patent Application No. 15/463,790, mailed October 3, 2018, 7 pages.	

Examiner Signature	/ALISSA D KARMIS/	Date Considered	10/24/2019

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				First Named Inventor	Narendra Nath
				Group Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
Sheet	2	of	2	Attorney Docket Number	META1100-11

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	C13	EASTLAKE, D., "Electronic Commerce Modeling Language (ECML) Version 2 Specification, June 2005 www.rfc-base.org, 34 pages.	
	C14	Notice of Allowance for U.S. Patent Application No. 15/725,138, mailed October 5, 2018, 10 pages.	
	C15	Notice of Allowance issued for U.S. Application No. 15/463,790, mailed January 17, 2019, 11 pages.	

Examiner Signature	/ALISSA D KARMIS/	Date Considered	10/24/2019

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Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	META1100-11

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U.S. PATENT DOCUMENTS

Initials	Cite No.	Document Number Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	A1	6868389	03-15-2005	Wilkins et al.	
	A2	7080073	07-18-2006	Jiang et al.	
	A3	7395259	07-01-2008	Bailey et al.	
	A4	7409402	08-05-2008	Chan et al.	
	A5	7630986	12-08-2009	Herz et al.	
	A6	7756741	07-13-2010	Ranka et al.	
	A7	7818208	10-19-2010	Veach	
	A8	2003/0187667	10-02-2003	Azimi	
	A9	2005/0125285	06-09-2005	McQueeney et al.	
	A10	2005/0149396	07-07-2005	Horowitz et al.	
	A11	2005/0187818	08-25-2005	Zito et al.	
	A12	2005/0197894	09-08-2005	Fairbanks et al.	
	A13	2005/0240475	10-27-2005	Margiloff et al.	
	A14	2006/0069616	03-30-2006	Bau	
	A15	2006/0277102	12-07-2006	Agliozzo	
	A16	2007/0022096	01-25-2007	Hertz	
	A17	2007/0067215	03-22-2007	Agarwal et al.	
	A18	2007/0088609	04-19-2007	Reller et al.	
	A19	2007/0226206	09-27-2007	Pavlovski et al.	
	A20	2007/0233565	10-04-2007	Herzog et al.	
	A21	2007/0239527	10-11-2007	Nazer et al.	
	A22	2007/0239542	10-11-2007	Shapiro	
	A23	2007/0244750	10-18-2007	Grannan et al.	
	A24	2008/0086356	04-10-2008	Glassman et al.	
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Examiner Initials	Cite No.	Foreign Patent Number Country Code Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY (Number 43)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	B1	WO0106416	01-25-2001	Infospace, Inc.	
	B2	WO2006103616	10-05-2006	Koninklijke Philips Electronics N.V.	

Examiner Signature	/ALISSA D KARMIS/	Date Considered	10/24/2019

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.D.K/

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INFORMATION DISCLOSURE STATEMENT

Application Number	Not Yet Assigned
Filing or 371 (c) Date:	Herewith
First Named Inventor	Narendra Nath
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Sheet 2 of 3	Attorney Docket Number	META1100-11

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	A26	2008/0140508	06-12-2008	Anand et al.	
	A27	2008/0201188	08-21-2008	Heyman et al.	
	A28	2008/0255915	10-16-2008	Collins et al.	
	A29	2008/0294524	11-27-2008	Badros et al.	
	A30	2009/0012903	01-08-2009	Subramanian et al.	
	A31	2009/0077022	03-19-2009	Cuthbert	
	A32	2009/0119169	05-07-2009	Chandratillake et al.	
	A33	2009/0119173	05-07-2009	Parsons et al.	
	A34	2009/0240586	09-24-2009	Ramer et al.	
	A35	2010/0082439	04-01-2010	Patel et al.	
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	A42	7216292	05-08-2007	Snapper et al.	
	A43	20040243520	12-02-2004	Bishop et al.	
	A44	20090164581	06-25-2009	Bove et al.	
	A45	20070250520	10-25-2007	Dettinger et al.	
	A46	20090313127	12-17-2009	Chaiken et al.	
	A47	20070239494	10-11-2007	Stephens et al.	
	A48	20020107882	08-08-2002	Gorelick et al.	
	A49	20080046313	02-21-2008	Chen	
	A50	20090144124	06-04-2009	Surendran et al.	

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Examiner Initials	Cite No.	Foreign Patent Number Country Code Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY (Number 43)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear

Examiner Signature	/ALISSA D KARMIS/	Date Considered	10/24/2019

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INFORMATION DISCLOSURE STATEMENT

Application Number	Not Yet Assigned
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First Named Inventor	Narendra Nath
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	META1100-11

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U.S. PATENT DOCUMENTS

Initials	Cite No.	Document Number Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	A51	20100082778	04-01-2010	Muilenburg et al.	
	A52	6651058	11-18-2003	Sundaresan et al.	
	A53	20090024718	01-22-2009	Anagnostopoulos et al.	
	A54	20110099077	04-28-2011	Darin et al.	
	A55	20120123859	05-17-2012	Gupta	
	A56	20080301562	12-04-2008	Berger et al.	
	A57	20080010142	01-10-2008	O'Brien et al.	
	A58	6490601	12-03-2002	Markus et al.	
	A59	20070061199	03-15-2007	Montgomery et al.	
	A60	20050209874	09-22-2005	Rossini	
	A61	20060212434	09-21-2006	Crawford et al.	
	A62	20020023108	02-21-2002	Daswani et al.	
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	A65	20040088713	05-06-2004	Myllymaki et al.	
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	A69	20170228797	08-10-2017	Nath et al.	
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INFORMATION DISCLOSURE STATEMENT

Application Number	16/265,615
Filing or 371 (c) Date:	02/01/2019
First Named Inventor	Narendra Nath
Group Art Unit	3624
Examiner Name	Anita Yvonne Coupe
Attorney Docket Number	META1100-11

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Initials	Cite No.	Document Number Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	A75	10262342	04-16-2019	Nath et al.	

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Examiner Signature	/ALISSA D KARMIS/	Date Considered	10/24/2019

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INFORMATION DISCLOSURE STATEMENT

Application Number	16/265,615
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First Named Inventor	Narendra Nath
Group Art Unit	3624
Examiner Name	Anita Yvonne Coupe
Attorney Docket Number	META1100-11

Sheet 1 of 1

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	A75	10262342	04-16-2019	Nath et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Number Country Code Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY (Number 43)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear

Examiner Signature		Date Considered	

Electronic Acknowledgement Receipt

EFS ID:	36289563
Application Number:	16265615
International Application Number:	
Confirmation Number:	7032
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Customer Number:	44654
Filer:	Katharina W. Schuster/Margarita Marquez
Filer Authorized By:	Katharina W. Schuster
Attorney Docket Number:	META1100-11
Receipt Date:	13-JUN-2019
Filing Date:	01-FEB-2019
Time Stamp:	13:08:24
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		META1100-11_IDS_06-13-2019.pdf	130046 0fa66f53b756eb7e93cadf1bc3c2e018e664ac0e	yes	3

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Transmittal Letter	1	2
	Information Disclosure Statement (IDS) Form (SB08)	3	3
Warnings:			
Information:			
	Total Files Size (in bytes):	130046	

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No. (Opt.) **META1100-11**

First Named Inventor: **Narendra Nath**	
Application Number **16/265,615**	Filing or 371 (c) Date: **02/01/2019**
For **DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE**	
Group Art Unit **3624**	Examiner **Anita Yvonne Coupe**
Confirmation Number: **7032**	

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

CERTIFICATION OF TRANSMISSION UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence is being transmitted to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 via the U.S. Patent and Trademark Office Electronic Filing System (EFS-Web) on June 13, 2019.

By: M. MARQUEZ
Margarita Marquez

Dear Sir,

Applicant respectfully requests, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the information listed on the attached SB08A/B form(s) be considered and cited in the examination of the above-identified application. A copy of U.S. Patent(s) and U.S. Patent Application Publication(s) listed on the attached SB08A form is not being submitted with this Information Disclosure Statement pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i) by the U.S. Patent and Trademark Office. Where applicable, a copy of foreign patent document(s) as well as information listed on the attached SB08B form is enclosed for the convenience of the Examiner.

☐ This Information Disclosure Statement is being submitted within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d).

☐ This Information Disclosure Statement is being submitted within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application;

☒ This Information Disclosure Statement is being submitted before the mailing of a First Office Action on the merits; or

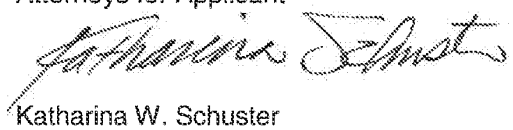
☐ This Information Disclosure Statement is being submitted before the mailing of a First Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114.

Pursuant to 37 C.F.R. §§ 1.97(g) and (h), no representation is made that a search has been made or that this information is material to patentability of the present application.

Applicant does not believe any fees are due and owing at this time. If Applicant is in error, the Director is hereby authorized to deduct any and all appropriate fees from Deposit Account 50-3183 of SPRINKLE IP LAW GROUP.

Respectfully submitted,

SPRINKLE IP LAW GROUP
Attorneys for Applicant



Katharina W. Schuster
Reg. No. 50,000

Dated: June 12, 2019

1301 W. 25th Street, Suite 408
Austin, Texas 78705
Tel. (512) 637-9220
Fax. (512) 371-9088

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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/265,615	02/01/2019	Narendra Nath	META1100-11

CONFIRMATION NO. 7032

44654
Sprinkle IP Law Group
1301 W. 25th Street
Suite 408
Austin, TX 78705

PUBLICATION NOTICE

OC000000108555797

Title:DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

Publication No.US-2019-0164199-A1
Publication Date:05/30/2019

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 Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, 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 https://portal.uspto.gov/pair/PublicPair. 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

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 NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
16/265,615	02/01/2019		785	META1100-11	1	1

CONFIRMATION NO. 7032

FILING RECEIPT

44654
Sprinkle IP Law Group
1301 W. 25th Street
Suite 408
Austin, TX 78705

OC000000105999938

Date Mailed: 02/19/2019

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**

Inventor(s)

Narendra Nath, Hillsborough, CA;
Mallikarjun Hiremani, Fremont, CA;

Applicant(s)

MetaRail, Inc., San Mateo, CA;

Assignment For Published Patent Application

MetaRail, Inc.

Power of Attorney: The patent practitioners associated with Customer Number 44654

Domestic Priority data as claimed by applicant

This application is a CON of 15/463,790 03/20/2017
which is a CON of 13/308,004 11/30/2011 PAT 9633378
which claims benefit of 61/420,193 12/06/2010

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 02/15/2019

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/265,615**

Projected Publication Date: 05/30/2019

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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 (1-866-999-4258).

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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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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The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 16/265,615

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	75		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	330		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	1 minus 20 =	*	x 50 =	0.00	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1 minus 3 =	*	x 230 =	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	785		TOTAL	

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	RATE($)	ADDITIONAL FEE($)	OR	RATE($)	ADDITIONAL FEE($)
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.

Power of Attorney to Transact Business with the United States Patent and Trademark Office

I hereby revoke all previous Powers of Attorney given in the application(s) identified in the attached Transmittal for Power of Attorney to One or More Registered Practitioners ("Transmittal Form").

I hereby appoint practitioners associated with the following Customer Number associated with Sprinkle IP Law Group, PC.

44654

as my/our attorney(s) or agent(s) and to transact all business before the United States Patent and Trademark Office (USPTO) in connection with any and all patents and patent applications that are assigned to **Metarail, Inc.** (the "assignee's patents/patent applications") in which they shall appear, any and all assignee's patents/patent applications associated with the above-referenced customer number, and any and all patents and patent applications referenced in the attached Transmittal Form.

Please recognize or change the correspondence address for the patents and patent applications referenced in the attached Transmittal Form to the address associated with the above-referenced customer number.

The undersigned is:

- ☐ Inventor or Joint Inventor
- ☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign
  *the undersigned has authority to act on behalf of the Assignee or Person to Whom the Inventor is Under an Obligation to Assign
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is currently being filed in this document)

The Transmittal Form may be completed and executed by one of the practitioners associated with the above-referenced customer number.

SIGNATURE			
Signature:	Narendra Nath	**Date:**	Jan 25, 2018
Name:	**Narendra Nath**		
Title:	**Chief Executive Officer**		
Company:	**Metarail, Inc.**		

PTO/AIA/14 (02-18)
Approved for use through 11/30/2020. 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	META1100-11
	Application Number	
Title of Invention	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE	

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.)

Inventor Information:

Inventor 1 — Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Narendra		Nath	

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

City	Hillsborough	State/Province	CA	Country of Residence	US

Mailing Address of Inventor:

Address 1	6925 Skyline Blvd.		
Address 2			
City	Hillsborough	State/Province	CA
Postal Code	94010	Country	US

Inventor 2 — Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Mallikarjun		Hiremani	

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

City	Fremont	State/Province	CA	Country of Residence	US

Mailing Address of Inventor:

Address 1	43167 Gatewood Street		
Address 2			
City	Fremont	State/Province	CA
Postal Code	94538	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).

PTO/AIA/14 (02-18)
Approved for use through 11/30/2020. 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	META1100-11
	Application Number	
Title of Invention	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE	

☐ **An Address is being provided for the correspondence information of this application.**

Customer Number	44654	
Email Address	docketing@sprinklelaw.com	Add Email / Remove Email

Application Information:

Title of the Invention	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE		
Attorney Docket Number	META1100-11	**Small Entity Status Claimed**	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	9	**Suggested Figure for Publication (if any)**	10

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

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).
Either enter 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	44654		

PTO/AIA/14 (02-18)
Approved for use through 11/30/2020. 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	META1100-11
	Application Number	
Title of Invention	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE	

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim 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.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	15463790	2017-03-20

Prior Application Status	Patented	Remove			
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15463790	Continuation of	13308004	2011-11-30	9633378	2017-04-25

Prior Application Status	Expired	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
13308004	Claims benefit of provisional	61420193	2010-12-06

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 priority to a foreign application. 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. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[1] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove			
Application Number	Country[1]	Filing Date (YYYY-MM-DD)	Access Code[1] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	META1100-11
	Application Number	
Title of Invention	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE	

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	META1100-11
	Application Number	
Title of Invention	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. **Priority Document Exchange (PDX)** - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. **Search Results from U.S. Application to EPO** - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	META1100-11
	Application Number	
Title of Invention	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

(•) Assignee	( ) Legal Representative under 35 U.S.C. 117	( ) Joint Inventor
( ) Person to whom the inventor is obligated to assign.	( ) Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is.

Name of the Deceased or Legally Incapacitated Inventor:	
If the Applicant is an Organization check here.	☒
Organization Name	MetaRail, Inc.

Mailing Address Information For Applicant:

Address 1	66 Bovet Road, Suite 380		
Address 2			
City	San Mateo	**State/Province**	CA
Country	US	Postal Code	94402
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	META1100-11
	Application Number	
Title of Invention	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE	

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	Given Name	Middle Name	Family Name	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		State/Province	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

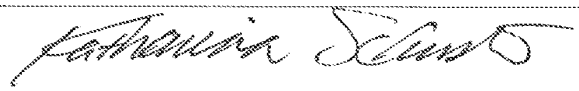
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet must be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature				Date (YYYY-MM-DD)	2019-02-01
First Name	Katharina W.	Last Name	Schuster	Registration Number	50000

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	META1100-11
	Application Number	
Title of Invention	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE	

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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INFORMATION DISCLOSURE STATEMENT				Application Number	Not Yet Assigned
				Filing or 371 (c) Date:	Herewith
				First Named Inventor	Narendra Nath
				Group Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
Sheet	1	of	2	Attorney Docket Number	META1100-11

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), 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	T[2]
	C1	Office Action issued for U.S. Patent Application No. 13/308,004, mailed December 18, 2013, 14 pages.	
	C2	Office Action issued for U.S. Patent Application No. 13/308,004, mailed July 2, 2014, 13 pages.	
	C3	Office Action issued for U.S. Patent Application No. 13/308,004, mailed June 26, 2015, 22 pages.	
	C4	Office Action issued for U.S. Patent Application No. 13/308,004, mailed September 6, 2016, 13 pages.	
	C5	"New Advertising Technologies Delivers Results for Travel Marketers: TripAdvisors Bettern Athan Banner Advertising," December 3, 2011, [Retrieved from <<https://tripadvisor.com/PressCenter-i2369-c1-Press_Press_Releases.html>>], 2 pages.	
	C6	Notice of Allowance issued for U.S. Patent Application No. 13/308,004, mailed March 8, 2017, 22 pages.	
	C7	MYLLYMAKI, "Effective Web Data Extraction with Standard XML Technologies," Computer Networks 39 (2002) 635-644.	
	C8	Office Action issued for U.S. Patent Application No. 15/463,790, mailed October 11, 2017, 10 pages.	
	C9	Notice of Allowance issued for U.S. Patent Application No. 15/463,790, mailed June 4, 2018, 11 pages.	
	C10	Aaron Rubin, Are You Experienced - The Copyright Implications of Web Site Modification Technology, 89 Calif. L. Rev. 817 (2001), 34 pages.	
	C11	Office Action issued for U.S. Patent Application No. 15/725,138, mailed April 16, 2018, 10 pages.	
	C12	Notice of Allowance for U.S. Patent Application No. 15/463,790, mailed October 3, 2018, 7 pages.	

Examiner Signature		Date Considered	

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				Filing or 371 (c) Date:	Herewith
				First Named Inventor	Narendra Nath
				Group Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
Sheet	2	of	2	Attorney Docket Number	META1100-11

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Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), 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	T²
	C13	EASTLAKE, D., "Electronic Commerce Modeling Language (ECML) Version 2 Specification, June 2005 www.rfc-base.org, 34 pages.	
	C14	Notice of Allowance for U.S. Patent Application No. 15/725,138, mailed October 5, 2018, 10 pages.	
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Application Number	Not Yet Assigned
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First Named Inventor	Narendra Nath
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	META1100-11

Sheet 1 of 3

U.S. PATENT DOCUMENTS

Initials	Cite No.	Document Number Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	A1	6868389	03-15-2005	Wilkins et al.	
	A2	7080073	07-18-2006	Jiang et al.	
	A3	7395259	07-01-2008	Bailey et al.	
	A4	7409402	08-05-2008	Chan et al.	
	A5	7630986	12-08-2009	Herz et al.	
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	A8	2003/0187667	10-02-2003	Azimi	
	A9	2005/0125285	06-09-2005	McQueeney et al.	
	A10	2005/0149396	07-07-2005	Horowitz et al.	
	A11	2005/0187818	08-25-2005	Zito et al.	
	A12	2005/0197894	09-08-2005	Fairbanks et al.	
	A13	2005/0240475	10-27-2005	Margiloff et al.	
	A14	2006/0069616	03-30-2006	Bau	
	A15	2006/0277102	12-07-2006	Agliozzo	
	A16	2007/0022096	01-25-2007	Hertz	
	A17	2007/0067215	03-22-2007	Agarwal et al.	
	A18	2007/0088609	04-19-2007	Reller et al.	
	A19	2007/0226206	09-27-2007	Pavlovski et al.	
	A20	2007/0233565	10-04-2007	Herzog et al.	
	A21	2007/0239527	10-11-2007	Nazer et al.	
	A22	2007/0239542	10-11-2007	Shapiro	
	A23	2007/0244750	10-18-2007	Grannan et al.	
	A24	2008/0086356	04-10-2008	Glassman et al.	
	A25	2008/0103897	05-01-2008	Flake et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Number Country Code Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY (Number 43)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	B1	WO0106416	01-25-2001	Infospace, Inc.	
	B2	WO2006103616	10-05-2006	Koninklijke Philips Electronics N.V.	

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Application Number	Not Yet Assigned
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First Named Inventor	Narendra Nath
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	META1100-11

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Initials	Cite No.	Document Number Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	A26	2008/0140508	06-12-2008	Anand et al.	
	A27	2008/0201188	08-21-2008	Heyman et al.	
	A28	2008/0255915	10-16-2008	Collins et al.	
	A29	2008/0294524	11-27-2008	Badros et al.	
	A30	2009/0012903	01-08-2009	Subramanian et al.	
	A31	2009/0077022	03-19-2009	Cuthbert	
	A32	2009/0119169	05-07-2009	Chandratillake et al.	
	A33	2009/0119173	05-07-2009	Parsons et al.	
	A34	2009/0240586	09-24-2009	Ramer et al.	
	A35	2010/0082439	04-01-2010	Patel et al.	
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	A44	20090164581	06-25-2009	Bove et al.	
	A45	20070250520	10-25-2007	Dettinger et al.	
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	A47	20070239494	10-11-2007	Stephens et al.	
	A48	20020107882	08-08-2002	Gorelick et al.	
	A49	20080046313	02-21-2008	Chen	
	A50	20090144124	06-04-2009	Surendran et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Number Country Code Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY (Number 43)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear

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INFORMATION DISCLOSURE STATEMENT

Application Number	Not Yet Assigned
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First Named Inventor	Narendra Nath
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	META1100-11

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U.S. PATENT DOCUMENTS

Initials	Cite No.	Document Number Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	A51	20100082778	04-01-2010	Muilenburg et al.	
	A52	6651058	11-18-2003	Sundaresan et al.	
	A53	20090024718	01-22-2009	Anagnostopoulos et al.	
	A54	20110099077	04-28-2011	Darin et al.	
	A55	20120123859	05-17-2012	Gupta	
	A56	20080301562	12-04-2008	Berger et al.	
	A57	20080010142	01-10-2008	O'Brien et al.	
	A58	6490601	12-03-2002	Markus et al.	
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	A60	20050209874	09-22-2005	Rossini	
	A61	20060212434	09-21-2006	Crawford et al.	
	A62	20020023108	02-21-2002	Daswani et al.	
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	A64	20010037361	11-01-2001	Croy	
	A65	20040088713	05-06-2004	Myllymaki et al.	
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	A71	7000242	02-14-2016	Haber	
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	A74	10152734	12-11-2018	Nath et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Number Country Code Number-Kind Code *(if known)*	Publication Date MM-DD-YYYY (Number 43)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear

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(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 January 2001 (25.01.2001)

PCT

(10) International Publication Number
WO 01/06416 A2

(51) International Patent Classification[7]: G06F 17/30

(21) International Application Number: PCT/US00/40415

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(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/357,530 19 July 1999 (19.07.1999) US

(71) Applicant: INFOSPACE, INC. [US/US]; 601-108th Avenue NE, Suite 1200, Bellevue, WA 98004 (US).

(72) Inventor: SIMONS, Geoffrey, W.; 701 Webster Street, San Francisco, CA 94117 (US).

(74) Agent: HOPE, Leonard, J.; Christensen O'Connor Johnson & Kindness PLLC, Suite 2800, 1420 Fifth Avenue, Seattle, WA 98101 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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WO 01/06416 A2

(54) Title: INTELLIGENT MAPPING OF FIELD NAMES IN AN ELECTRONIC FORM WITH STANDARD FIELD NAMES

(57) Abstract: Methods, apparatus, and computer program products are disclosed for facilitating the mapping of legacy field names in an online vendor form with standard field names as one step in an automatic online form filling process. When a vendor registers a form with a third-party automatic form filling service, fields in the vendor's form must be mapped with standardized field names created and maintained by the third-party service. A process is described for intelligent mapping of a legacy field name in an electronic legacy form with one or more standard field names, thereby saving the vendor time and reducing the chance of error in the form registration process. A method of mapping a standard field name with a legacy field name from an electronic legacy form is described. A legacy field name is extracted from an online vendor form. A list of standard field names that are predicted to most likely map to the legacy field name is created using a linear algebra algorithm. A standard field name from the list that actually maps to the legacy field name is selected. A knowledge base of vectors used to create the list of predicted standard field names is micro-adjusted to reflect the selection of the predicted standard field name that actually maps to the legacy field name.

INTELLIGENT MAPPING OF FIELD NAMES IN AN ELECTRONIC FORM WITH STANDARD FIELD NAMES

CROSS-REFERENCE TO RELATED APPLICATIONS

A system and method for automatic form filling is described in Application No. 09/231,644, titled "Server For Enabling The Automatic Insertion Of Data Into Electronic Forms On A User Computer", (Attorney Dkt: MLLTP001) and in Application No. 09/231,254, (Attorney Dkt: MLLTP002) titled "Method and Apparatus for Client Side Automatic Electronic Form Completion", both filed January 15, 1999.

Background of the Invention

Field of the Invention

The present invention relates generally to computer software for examining form documents over a computer network. More particularly, the present invention provides a method and system for automatically deriving associations between fields in an electronic form with a list of predefined fields on a server computer.

Discussion of Related Art

One result of the recent explosion in the use of computers is the amount of communication that now takes place between separate computers and computer systems. Many methods and systems exist for communications between computers or computer systems. This is reflected in many contexts, such as in the growth of the Internet or, more specifically, the World Wide Web. For purposes of the following discussion, several methods and systems will be described with reference to the Internet and to Web sites as a matter of convenience. It should be understood,

however, that this is not intended to limit the scope of this discussion, and that many other applicable devices and protocols for computer communications exist, such as "Intranets," closed proxy networks, enterprise-wide networks, direct modem to modem connections, etc.

In recent years, the Internet has been used for commerce (often referred to as "e-commerce") and performing various other types of transactions, typically between businesses and individuals. One step generally necessary in performing transactions over the Internet is having the individual fill in some type of electronic or online form so the business or vendor can get some basic information about the customer. In general, many methods may be used to assist a user in filling out such an electronic form document. One or more of these methods may involve a vendor registering its form with a third-party where the third-party facilitates, primarily by automating, the process of filling in the form by the customer.

One method of registering a vendor's electronic form with a third-party service provider (where the "service" consists of automated form filling) typically involves the necessary step of matching fields in the vendor's form with the third-party's standard fields. Presently, this is done without involving the vendor. Employees of the third-party upload or otherwise obtain a copy of a vendor's form and examine each field in the form. They then match each of the fields with one of the third-party's own standard fields. This process is repeated for each vendor (some of whom may have more than one form) the third-party desires to register with its service, without involving or consulting with the vendor.

One of the drawbacks to this manual approach to matching form field names is that it is, by its nature, manually intensive if the third-party wants to register hundreds or thousands of forms from different vendors. This would require a large investment in time and labor to initially set up and to continually maintain and expand. Furthermore, because the matching is done manually by human beings, the chances of clerical error are high.

At another level, drawbacks from the manual approach to mapping field names are more significant. When done manually, the third-party could mismatch a vendor field name with one of the standard third-party field names thereby associating a meaning with a vendor, or legacy, field that the vendor did not intend. Another significant drawback stems from not having the vendor participate in the mapping process. By not having the vendor or form owner involved in the mapping process, the third-party is unable to take into account privacy considerations desired

by the vendor. Although online transactions are on the rise, consumers are increasingly wary and sophisticated with respect to the privacy or protection of any personal information they enter online. Generally speaking, consumers, at a minimum, want to know how their information will be used once they have entered it. For example, will it be used strictly for the single transaction being conducted at the moment or will it be saved by the vendor, perhaps to be used in a mailing list or in a database of consumer preferences.

In any case, many online vendors want to have some type of privacy negotiation associated with any forms being registered with the third-party service. If no privacy features are associated with a particular form, consumers will be increasingly reluctant to provide information, especially certain types of information such as billing information or consumer preferences. However, if the vendor is involved in the matching process, the process should be efficient and easy for the vendor, otherwise the vendor is less likely to register its forms with the third-party.

Therefore, it would be desirable to have a process in which the vendor or online merchant performs the matching between the legacy field names and the standardized third-party field names. Furthermore, it would be desirable to make the matching procedure for the vendor efficient, preferably by examining the legacy field name and then providing the most likely matching standard field names from which the vendor can select the correct one. This intelligent mapping process should have the ability to evolve or learn as corrections are made and more forms are registered with the third-party service.

Summary of the Invention

According to the present invention, methods, apparatus, and computer program products are disclosed for intelligent mapping of a legacy field name in an electronic legacy form with one or more standard field names. In one aspect of the present invention a method of mapping a standard field name with a legacy field name from an electronic legacy form is described. A legacy field name is extracted from an online vendor form. A list of standard field names that are predicted to most likely map to the legacy field name is created. A standard field name from the list that actually maps to the legacy field name is selected. A knowledge base used to create the list of predicted standard field names is micro-adjusted to reflect the selection of the predicted standard field name that actually maps to the legacy field name.

In one embodiment the legacy field name is extracted by parsing the online legacy form and creating a document object model. In another embodiment the list of predicted standard field names are drawn from a standard field name list having multiple field names commonly found in vendor forms. In yet another embodiment an initial training set upon which a knowledge base is built is created manually entering field mapping data between standard fields and legacy fields. In yet another embodiment the list of predicted standard field names is created utilizing one or more evidence variables to determine standard field names most likely to map to the legacy field name and where one of the variables is relative distance of a term from the legacy field name being examined. In yet another embodiment the knowledge base used to create the list of predicted standard field names is a vector set having multiple vectors, wherein a vector represents a standard field name. In yet another embodiment the list of predicted standard field names is created using a linear algebra algorithm.

Brief Description of the Drawings

The invention will be better understood by reference to the following description taken in conjunction with the accompanying drawings in which:

FIG. 1 is an overview block diagram showing components of a field mapping system in accordance with one embodiment of the present invention.

FIG. 2 is a block diagram depicting components of a field mapping system in accordance with one embodiment of the present invention.

FIG. 3A is a flow diagram describing a processing for building an initial training set or knowledge base to be used in the field mapping system in accordance with one embodiment of the present invention.

FIG. 3B is a block diagram of an object model in accordance with one embodiment of the present invention.

FIG. 4 is a flow diagram of a process of registering a form with a third-party service after a training set has been created in accordance with one embodiment of the present invention.

FIG. 5 is a table depicting weight values and fields used to calculate probabilities of particular standard fields in accordance with one embodiment of the present invention.

FIG. 6 is a block diagram of a typical computer system suitable for implementing an embodiment of the present invention.

Detailed Description of the Preferred Embodiment

Reference will now be made in detail to a preferred embodiment of the invention. An example of the preferred embodiment is illustrated in the accompanying drawings. While the invention will be described in conjunction with a preferred embodiment, it will be understood that it is not intended to limit the invention to one preferred embodiment. To the contrary, it is intended to cover alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims.

In accordance with one embodiment of the present invention, there is provided a system and method for intelligently mapping fields in an electronic form (referred to as legacy fields) with standard fields from a set of predefined field names as described in the various figures. This intelligent field mapping method is one aspect of an automatic form filling procedure for online or electronic transactions, such as those over the Internet. A system and method for automatic form filling is described in Application No. 09/231,644, titled "Server For Enabling The Automatic Insertion Of Data Into Electronic Forms On A User Computer", (Attorney Dkt: MLLTP001) and in Application No. 09/231,254, (Attorney Dkt: MLLTP002) titled "Method and Apparatus for Client Side Automatic Electronic Form Completion", both filed January 15, 1999, and incorporated by reference herein.

The automatic form filling procedure described in these applications require that a merchant or vendor form be registered with a third-party automatic form filling provider ("third-party service" or "third-party"). In order for a form to be registered with the third-party service for automatic form filling, legacy fields in the vendor form need to be mapped or paired with a standard field from a set of field names created and maintained by the third-party (or at least those legacy fields that have a corresponding standard field).

The method of the present invention facilitates the matching process by providing the vendor, desiring to register its form, with standard field names most likely to match each of the legacy field names. As the number of vendor forms registered with the third-party service increases, the field mapping process of the present invention "learns" more about which standardized fields are more likely to match a given legacy field name. Through this field mapping process, the registration process for a vendor evolves and becomes more efficient since the vendor merely has to select a standard field from a short list of "most likely" matching standard fields.

To further illustrate the foregoing, FIG. 1 is an overview block diagram showing components of a field mapping system in accordance with one embodiment of the present invention. For example, a vendor or merchant wanting to do business over a network, such as the Internet, registers a form 102, such as a purchase order form to be filled out by customers, with a third-party service. Form 102 is an electronic form containing legacy fields and labels for such fields to be filled in by a customer. The legacy fields are given names when form 102 is created, such as *fname* and *lname* or *lastname* and *firstname*, etc., which are typically not seen or known to the customer. The labels are the text seen by the customer or user describing these fields such as "First Name" "Last Name" "Street Address," etc. Typically, when an online customer visits the vendor's Web site and decides to make a purchase, the customer fills in each field "manually" by typing in the information, usually starting with a first name, last name, home address, phone number, billing address, and so on.

In order to be registered, form 102 is uploaded to a third-party server 104. As mentioned above, one aspect of the registration process is mapping legacy field names with third-party standard field names. Server 104 contains, among other information, a field map domain database 106 described in greater detail below. Domain database 106 is created using a metric described below and is used to determine the most likely matching standard field names. A client "customer" 108 running a Web browser 110 already registered with the third-party (by providing the third-party with personal information) has form 102 automatically filled in with information associated with customer 108. This last step is not part of the present invention and is described in greater detail in pending patent applications incorporated by reference above. Customer 108 and browser 110 are shown for completeness and are relevant in discussions below regarding the construction of document object models ("DOMs") based on the uploaded vendor forms.

FIG. 2 is a block diagram depicting components of a field mapping system in accordance with one embodiment of the present invention. Shown are vendor form 102, a list of third-party standard field names 202, a field mapping component 204, and a field mapping list 206. Vendor form 102 is described in FIG. 1 above. It is typically an HTML document created and maintained by a vendor. In other embodiments, form 102 can be an XML document. Form 102 contains various fields, of which three are shown (in brackets) with accompanying labels or text: First Name 208: [fname] 210, Last Name 212: [lname] 214, and

Middle Initial 216: [minitial] 218. Of these items or objects, fname 210, lname 214, and minitial 218 are examples of legacy field names and can be categorized as field objects. Labels First Name 208, Last Name 212, and Middle Initial 216 are each text strings and can be further decomposed into "First," "Name," "Last," "Name," "Middle," and "Initial." The legacy field names and text strings are created and maintained by the vendor.

Standard field name list 202 is created and maintained by a third-party service for automatic form filling. In the described embodiment, field name list 202 contains about 70 to 80 of the most common fields found in most customer-oriented forms for purchasing goods or services in North America and internationally. When a vendor registers an electronic form, generally, many of the fields in the form will have a corresponding matching field in field name list 202. Shown as part of field name list 202 are three examples of standard field names: user_name_first 220, user_name_last 222, and user_name_middle 224, collectively making up a customer's name. In other embodiments, names of the standard fields and the number of such fields can vary depending on what the third-party service provider believes is most suitable. Other examples of field names found in field name list 202 include billing_street_address, user_home_phone, credit_card_type, and so on. Field mapping component 204 collects "intelligence" as new forms are registered and performs the field mapping function using various data sources, such as field map domain database 106, to create a field mapping list 206 (i.e., a list of associated field names). Field mapping component 204 is described in greater detail below. Initially (i.e., when no forms have been registered), mapping component 204 uses a training set which it then builds upon as new forms are registered. In the described embodiment, the training set, described below, is created "manually" in that vendors or the third-party service match fields without the benefit of a "most likely" matching field list.

After the training set is created and the mapping component is running, an inference base built using a learning engine is used to provide the vendor with a selection of standard field names for a particular legacy field name. Field mapping list 206 is an abstract representation of the final "output" of the intelligent field mapping process of the present invention. On the left-side column of list 206 are legacy field names found in form 102, such as fname 210, lname 214, and minitial 218. Associated with each legacy field name is a selection list of most likely corresponding standard field names. For example, fname 210 has a selection list

having, as a first and most likely choice, user_name_first 220, followed by the second most likely choice, user_name_last 222, and finally, by user_name_middle 224. If there are fields preceding fname 210 and text string 208, those fields may also be in the selection list. Whether they appear in the selection list depends, for example, in part, on how often they immediately precede fname 210 in other vendor forms. In other embodiments, evidence variables other than proximity and frequency can be used by the learning engine, alone or in combination with other evidence variables, to determine the most likely matching standard field names.

Standard field name user_name_last 222 will likely always be in the selection list since it is almost always very close to user_name_first 220. The same is true for user_name_middle 224, although this field is less predictable: it may appear after lname 214, between fname 210 and lname 214, or not appear at all. In the described embodiment, the selections are presented to the vendor in the form of a pull-down window with only the first, most-likely selection showing initially, and the other choices in the pull-down window. In other embodiments, the selections can be presented to the user in other formats.

FIG. 3A is a flow diagram describing a process for building an initial training set or knowledge base to be used in the field mapping system in accordance with one embodiment of the present invention. The training set is an initial knowledge base that is created "manually" in that legacy fields are mapped to standard fields preferably by the vendor. This is done without providing a short list or most likely standard field to the person performing the mapping. At step 302 a vendor's customer form is uploaded to a server under the control of the third party service provider. In the described embodiment, the vendor uploads one form onto the server in order to register it with the third-party service. In other embodiments, multiple forms from one vendor can be uploaded.

At a step 304 the form, typically an HTML document, is parsed using an HTML parser thereby creating a document object model, or DOM. An example of an object model is shown in FIG. 3B. Such a parsing procedure is well known in the field of Internet programming as is the creation of DOMs (essentially a tree of nodes). Some typical parsing algorithms are widely used in Javascript, browser programs (e.g., Netscape Navigator or Microsoft Internet Explorer), and in WC3. The HTML parsers used in the present invention should be as "forgiving" as the HTML parsers utilized in the widely used Web browsers. In the described embodiment, DOM 330 created is a linear object model made up of a linear series of

linked nodes. Object 330 can be seen as the raw model that represents the legacy form. It should be noted here that the object module is not necessarily created solely for field mapping component 204 and can be used by other components of the broader automatic form filling system.

Following the same example of text and fields in form 102 from above, a corresponding DOM 330 would include a node 332 of type TEXT and value "First" followed by another TEXT node 334 with value "Name" followed by a node 336 of type LFIELD (legacy field) having a value " fname," and so on.

However, one unique feature of object model 330 in the described embodiment is the inclusion of an "unknown" node 338 for each legacy field node in the object model. This node of type "unknown" is parallel to and at the same level as a legacy field, such as "fname." Thus, the HTML parser of the described embodiment inserts these nodes in the object model and creates a set of unknown nodes. These object models containing the normal nodes and "unknown" nodes are assigned a unique identifier and stored. It is also useful to note here that because HTML is linear, the parser can create a linear object model in which it is possible, in subsequent steps, to determine the distance other nodes in the model are from a particular node (i.e., it is possible to count nodes ahead of or behind a given node to determine a distance). Thus, a vendor form is defined as a set of nodes of three types: text (labels), legacy fields, and unknowns.

At step 306, a human performs a manual mapping of each legacy field with a standard field. In this step, the object model representing the form is retrieved and all nodes representing a legacy field are extracted along with each associated unknown node or field. The process of extracting nodes of one or more particular types from an object model is well known in the field of computer and Internet programming. For each legacy field, a corresponding standard field is chosen, if appropriate or available. Once the mapping between the legacy field names and standard field names is complete, at step 308 the object model is retrieved or reconstructed with the unknown nodes or fields eliminated and replaced with the standard field names entered by the vendor. Any unknown nodes associated with legacy fields which did not have a matching standard field are unaltered and are essentially ignored in subsequent processing in the described embodiment. This manually entered mapping data is stored in a field map domain as a form object having individual elements and associated clauses. A clause is a data element and a privacy practice, not relevant to the present invention.

At step 310 the completed object model containing the legacy fields and the standard field names are stored in a field map domain database. In the described embodiment the object model is compressed before being stored in the domain database. Although storing a compressed object model representing a form saves storage space (the number of forms could potentially reach hundreds of thousands), data not necessary to the algorithm described below is lost during compression. If data object modules of mapped forms are stored, no data would be lost.

In another embodiment, the entire object model uncompressed is stored should a different algorithm or learning engine be utilized for the field mapping. By storing an uncompressed object model, the current algorithm or a different type of algorithm can be retrained to use different data in the object model. For example, in another embodiment term or label nodes such as " First" or " Street Address" in the object model can also be mapped or associated with a standard field by the vendor. "First" can be associated with the standard field *user_name_first*, for example, and this added intelligence can be used by the learning engine or algorithm to better predict which standard field names map to a given legacy field.

After step 310 the process of entering one vendor form into a training set is complete. The process is repeated for each form used to initially build the training set. In the described embodiment, intelligence data from 150 to 200 forms is used to initially build the training set. This number can, of course, vary depending on the desired initial accuracy or intelligence of the field mapping system.

FIG. 4 is a flow diagram of a process of registering a form with a third-party service after training set has been created in accordance with one embodiment of the present invention. Once the training set has been created and the field map system is in full operation, an online vendor desiring to take advantage of the third-party's automatic form filling service is required to register the form with the third-party. It is during this registration process that the vendor must map legacy fields in its form with standard field names created and maintained by the third-party. As described above, the present invention describes a method and system of facilitating the field mapping process by providing the vendor with the most likely standard field name to map to a particular legacy field followed by a list of other likely standard fields that might match. For many vendor forms having dozens of fields, intelligently suggesting standard names to the vendor can save the vendor from having to go through a potentially tedious and time-consuming process (otherwise the vendor

would have to search through a long list of standard field names for each field in its form, thereby deterring some vendors from registering with the third party service).

Steps 402 and 404 of FIG. 4 are substantially similar to steps 302 and 304 of FIG. 3A. At step 402 the vendor uploads a form it desires to register to the third-party server. At step 404 the form is parsed using an HTML parser. An object model having nodes for terms, legacy fields, and "unknown" nodes associated with each legacy field node is created. The parser also extracts the legacy field nodes from the object model at step 404. At step 406 the field mapping system predicts which standard field names are most likely to match each legacy field (determined by examining the extracted legacy field nodes from the object model). That is, it makes its best predictions as to what the unknown nodes in the object model are in terms of standard field names. In the described embodiment this is done using a linear algebra algorithm and is described in greater detail below.

At step 408 the predicted standard field names for the legacy fields are presented to the user. In the described embodiment, the vendor initially sees one selection (the most likely standard field) followed by a pull-down menu of three or four other likely fields in descending order. The vendor either selects the standard field dame presented (i.e., the one the field mapper determined should be the corresponding standard field for the particular legacy field) or one of the other likely standard field names. If the vendor selects the first choice, it is essentially confirming the field mapper's prediction. If the vendor selects one of the others or none at all, he is implicitly correcting the field mapper's intelligence.

At step 410 this confirmation or correction feedback from the vendor (provided by the vendor simply from using the field mapping component) is used to micro-adjust the inference base or rule set of the field map system. The inference base is compressed into linear algebra tables as described below. In the described embodiment any corrections to or confirmations of the field map intelligence by the vendor are used to correct one evidence variable, namely, the relative distance of certain terms from the legacy field being examined. The distance is measured in terms of the number of nodes (in the object model) from a legacy field node. The role of this distance variable and how it is used is described in greater detail below. In other embodiments, other evidence variables can be used (e.g., a Boolean variable indicating whether a term is before or after a particular legacy field node) and, thus, input from the vendor can be used to micro-adjust the weights of those variables as

well. Once the vendor settings are fed to the field map inference base, the process, of registering a form is complete.

In the described embodiment a linear algebra algorithm is used as a learning engine for building the inference base of the field map system. In other embodiments the learning engine can be based on a Bayesian network or a neural network. Generally, the linear algebra algorithm used in the described embodiment uses a vector set or matrix to represent a form where each row is keyed based on a standard field. Once a matrix, described below, is created for a form, its values are averaged or combined with corresponding values in a "master" matrix which represents a constantly adjusted inference base for the field map system. Predictions as to legacy field/standard field mappings are derived from this inference base or master matrix. $\hat{P}_j$

A selected form *l* includes a series of labels (terms) and fields (legacy fields). In the first stage of the linear algebra algorithm a set of vectors, $\widetilde{T}_l$ is created for a form *l*. This set of vectors only corresponds to nodes that were in the selected form *l*. Each vector represents one term *i* contained in form *l*, such as "First" "Last" or " Street." Thus, if one form had the term "Email" the vector set for that form would have a vector corresponding to that term, whereas another vendor form that did not contain a field for "Email" would not have a vector for that term *i*. A vector for a term *i* in form *l* is represented by the following formula: $\overline{T}_{l_i} = \Sigma_j \neq_i w_{l_{ij}} \hat{P}_j$. Thus, for a given term or node *i* in a form *l*, a vector is created. An example of a single vector for the term "First" would be: $\overline{T}_{l_{(First)}} = \frac{1}{3}\hat{P}_{(user\_name\_first)} + \frac{1}{3}\hat{P}_{(user\_name\_first)} + \ldots$ The variable w represents a "weight" calculated based on the distance a term node or field node is from a particular standard field. The calculation of this weight is described below. Each vector is a sum of values where each value is the equivalent of a dot product of a weight (e.g., 1/3, 1/6. . .) and an unknown node in the object model. The operation performed is similar to a dot product taken in an inverted manner. Essentially, each vector represents how term *i* is associated with standard field nodes, symbolized by $\hat{P}_j$.

The weights of nodes in the vicinity of term *i* are inversely proportional to the distance of the node from the term. The distance is determined by the number of nodes from the term *i* node in object model 330. This distance is essentially the same as the relative position of terms in the original HTML document of form *l*. Thus, if

the nodes are in the following order: "First" "Name" [fname] "Last" "Name" and [lname], the node for term "First" is two away from the [fname] node and five away from the [lname] node, for example. A node is zero distance away from itself. Each vector $\overline{T}_{l_i}$ (for term *i* in form *l*) has a vector of weights, $w_{li0}, w_{li1}, w_{li2}$, and so on, associated with each node. If the weight falls below a certain threshold value, the node is ignored and not included in the vector for that term. For example, while [lname] is sufficiently close to "First" to be included in the vector for "First", a term much further down the form, such as "Payment" or "Email", may be too far from "First" to have any significant weight and therefore, not be included in the vector. In the described embodiment, the weight of a particular node with respect to a term *i* is calculated based on the following formula: w=1/(1+d), hence, inversely proportional to the distance of the node from the term. The variable d is the distance a node is from term *i*. If a term has a distance of two, it is assigned a weight of 1/3; if it has a distance of one, it has a weight of ½. Thus, the farther the distance a node is from term *i*, less weight is accorded to that node. In the described embodiment, if a node has a weight less than 1/8, it is not included in the vector N_{l_i} for term *i*.

The set of vectors $\widetilde{T}_l$ represents vectors for each term in form *l*. Each vector, in turn, can be seen as a series of weight, standard field pairs as described above. The number of these pairs in each vector can vary, as can the number of vectors in the set of vectors representing a form since forms can have varying number of terms.

$$\widetilde{T}_l = \begin{Bmatrix} \overline{T}l_{first} \\ \overline{T}l_{name} \\ \overline{T}l_{fname} \\ \vdots \end{Bmatrix} = \begin{Bmatrix} 1/3\,\hat{P}_{user\_name\_first} + 1/6\,\hat{P}_{user\_name\_last} + \cdots \\ 1/3\,\hat{P}_{user\_name\_first} + 1/6\,\hat{P}_{user\_name\_last} + \cdots \\ 1\,\hat{P}_{user\_name\_first} + 1/4\,\hat{P}_{user\_name\_last} + \cdots \\ \vdots \end{Bmatrix}$$

The inference base is the center of intelligence of the field map system and is continually modified when new forms are registered. In other words, when a new $\widetilde{T}_l$ is entered into the system, data from the vectors in $\widetilde{T}_l$ are used to update or, more accurately, micro-adjust data in the inference base. One primary difference in calculating values for the inference base is that it is not specific to one form *l*; thus, subscript *l* does not appear in any of the equations. The inference base is also a series of vectors, similar to the matrix for a single form *l*. However, the number of vectors is much larger since each unique term found in all forms registered has a vector in the inference base, which could range in the hundreds and possibly

thousands. The equation used to calculate a vector inference base is similar to that for a form: $\overline{T}_i = \sum_j w_{ij}\hat{P}_j$, for a term *i* and a standard field *j*.

The matrix $\widetilde{T}_i$ is a sum of vectors $\overline{T}_{l_i}$, described below, where each vector represents a term found in at least one of the registered forms and that term's association with other nodes. The weight given to a particular standard field to represent that field's association with a particular term, such as a legacy field or text string, is an average of weights given to the same standard field with respect to the same particular term over all previously registered forms. Each vector in the inference base matrix is calculated based on the formula $\overline{T}_i = \sum_j w_{ij}\hat{P}_j$. The weight w_{ij} is calculated by summing all the weights from individual forms, represented by $w_{l_{ij}}$, as described above, divided by the number of times n_i the term *i* has appeared in previously registered forms. The matrix $\widetilde{T}_i$ is the average of individual form matrices $\widetilde{T}_l$. The field map system keeps a count of the number of times a term appears in a particular form. A count vector $\overline{N}$ is maintained using the formula $\overline{N} = \sum_j n_i Ni$, where n_i is the number of times node *i* appeared in all the registered forms. Thus, when calculating the average, the sum of the number of times a term appears is determined first. The row corresponding to the term is divided by the sum to obtain the average weight for that term with respect to each standard field name in that row. Each element (node) in a row is divided by the number of times it appears in a particular form.

The inference base matrix is used to calculate probabilities that a particular unknown or standard field is a matching standard field for a given legacy field. In the described embodiment a general formula used to derive probabilities for an unknown field *k* in form *l* is $\overline{U}_{l_k} = \sum_i w_{l_{ik}} \hat{T}_i$. Weights $w_{l_{ik}}$ are only those weights that exceed a threshold value, such as 1/8. Any fields having weights lower than the threshold are not worth considering in the equation. In the described embodiment $\hat{T}_i$ is normalized by dividing $\overline{T}_i$ by the magnitude of $\overline{T}_i$. A normalized $\hat{T}_i$ is, for a particular legacy term *i*, a vector of sums of the dot product of weight and a standard field *j*, based on the formula $\overline{T}_i = \sum_i w_{ij}\hat{P}_i$, as described above. A substitution can be made replacing $\hat{T}_i$ in the general formula $\overline{U}_{l_k} = \sum_i w_{l_{ik}} \hat{T}_i$ with $\sum_i w_{ij} P_i$.

By performing this substitution, $\overline{U}_{l_k}$ can now be expressed in terms of weights and standard field names, $\hat{P}_j$. This makes calculating the probabilities for $\overline{U}_{l_k}$ practical. The probabilities can now be expressed as a sum within a sum: $\overline{U}_{l_k} = \sum_i w_{l_{ik}} \left(\sum_i w_{ij} \hat{P}_i \right)$. This can be rearranged to express the probabilities more explicitly in terms of $\hat{P}_j$ or standard field: $\overline{U}_{l_k} = \left[\sum_j \left(\sum_i w_{l_{ik}} w_{ij} \right) \right] \hat{P}_j$ where the sums within the brackets represent the probability that the unknown field *k* in form *l* is the standard field $\hat{P}_j$. The final result, that $\overline{U}_{l_k}$ be expressed as a linear combination of possible P_j's, is then achieved. The sums expressed in the formula are depicted in the form of a table shown in FIGURE 5.

FIG. 5 is a table depicting weight values and fields used to calculate probabilities of particular standard fields in accordance with one embodiment of the present invention. The final step in the linear algebra learning algorithm used by the field map system is calculating a probability that a legacy field maps to a given standard field. The calculation based on the formula $\overline{U}_{l_k} = \left[\sum_j \left(\sum_i w_{l_{ik}} w_{ij} \right) \right] \hat{P}_j$ can be shown more explicitly in table 500. Columns 502 represent standard field names that can possibly match (i.e., have weights above a threshold value) any of the legacy fields in form *l*. Thus, the number of columns in table 500 can vary depending on the form *l* being parsed. Shown in table 500 are two sample columns: *user_name_first* 504 and *user_name_last* 506. Rows 508 represent all terms and legacy fields in form *l* and are drawn from the form object model. As with columns 502, the number of rows can vary depending on the form being parsed. Shown in table 500 are four sample rows for "First", "Name", [fname], and "Last."

In the described embodiment each term in rows 508 has a corresponding weight column 510 containing individual weight values $w_{l_{ik}}$, previously calculated as described above. This weight corresponds to a particular term's distance from an unknown field. Thus, $w_{l_{ik}}$ is the weight between the unknown *k* and node *i*. In table 500, the term "First" has a weight of 1/3 with respect to legacy field [fname]. "Name" and "Last" have higher weights since they are closer to [fname]. Legacy field [fname] has a weight of one with respect to itself. A cell 512 (intersection of a row and column) contains another weight value, specifically w_{ij}, needed to complete the sum operations to calculate the probability that particular unknown U_{l_k} matches a standard field P_j. Cell 512, for example, holds the value .35. This is the weight given to the term "First" with respect to the standard field *user_name_first*. The

variable $\overline{w}_{ij}$ is calculated as $\overline{w}_{ij} = \frac{\sum W_{hj}}{N_j}$. In another cell 514 representing [fname] and *user_first_name*, w_{ij} is very high since, drawing from past form registrations, the legacy field [fname] has frequently matched standard field *user_name_first*. The weight would be higher, such as .99, if all previous forms called the field for the customer's first name "fname." Vendors can call this field various other names, such as [firstname] or [name_first], and so on, which somewhat dilutes the possibility that [fname] matches *user_name_first*.

Once the weight values are in table 500, probabilities that a particular standard field matches a legacy field can be calculated. As noted above in the formula for unknown $\overline{U}_{l_k} = \left[\sum_j \left(\sum_i w_{l_{ik}} w_{ij}\right)\right] \hat{P}_j$, operations are performed for a particular column (standard field name). The summation of $w_{l_{ik}}$ and w_{ij} is first taken. These values are then summed to derive a particular probability. Using sample values from table 500, the calculations to be performed for *user_name_first* would include: $\hat{P}$ *user_name_first* = [(1/3)*.35] + [(1/2)*.5] + [1*.9] + [(1/2)*.5] + . . . These calculations result in a value representing a probability that *user_name_first* maps to [fname]. A similar calculation is done for : $\hat{P}$ *user_name_last*: [(1/3)*.35] + [(1/2)*.2] + [1*.4] + [(1/2)*.6] . . . . These probability values are then examined and the standard field having the highest probability is presented to the vendor during registration. In the described embodiment, the standard fields having the second, third, and fourth highest probability values are presented to the vendor in a pop-down window should the first, most-likely, candidate standard field not be the one that maps to the legacy field. These calculations lead to the formation of logical legacy field/standard fields list 206 of FIG. 2. Table 500 is logically created for each legacy field in vendor form *1*. Through this process, potential standard fields for each legacy field in a form are derived and presented to the vendor.

The present invention employs various computer-implemented operations involving data stored in computer systems. These operations include, but are not limited to, those requiring physical manipulation of physical quantities. Usually, though not necessarily, these quantities take the form of electrical or magnetic signals capable of being stored, transferred, combined, compared, and otherwise manipulated. The operations described herein that form part of the invention are useful machine operations. The manipulations performed are often referred to in terms, such as, producing, identifying, running, determining, comparing, executing,

downloading, or detecting. It is sometimes convenient, principally for reasons of common usage, to refer to these electrical or magnetic signals as bits, values, elements, variables, characters, data, or the like. It should remembered, however, that all of these and similar terms are to be associated with the appropriate physical quantities and are merely convenient labels applied to these quantities.

The present invention also relates to a server computer or similar system for performing the aforementioned operations. The system may be specially constructed for the required purposes, or it may be a general purpose computer selectively activated or configured by a computer program stored in the computer. The processes presented above are not inherently related to any particular computer or other computing apparatus. In particular, various general-purpose computers may be used with programs written in accordance with the teachings herein, or, alternatively, it may be more convenient to construct a more specialized computer system, such as a privacy bank server, to perform the required operations.

FIG. 6 is a block diagram of a general purpose computer system 600 suitable for carrying out the processing in accordance with one embodiment of the present invention. FIG. 6 illustrates one embodiment of a general purpose computer system. Other computer system architectures and configurations can be used for carrying out the processing of the present invention. Computer system 600, made up of various subsystems described below, includes at least one microprocessor subsystem (also referred to as a central processing unit, or CPU) 602. That is, CPU 602 can be implemented by a single-chip processor or by multiple processors. It should be noted that in reconfigurable computing systems, CPU 602 can be distributed amongst a group of programmable logic devices. In such a system, the programmable logic devices can be reconfigured as needed to control the operation of computer system 600. In this way, the manipulation of input data is distributed amongst the group of programmable logic devices. CPU 602 is a general purpose digital processor which controls the operation of the computer system 600. Using instructions retrieved from memory, the CPU 602 controls the reception and manipulation of input data, and the output and display of data on output devices.

CPU 602 is coupled bi-directionally with a first primary storage 604, typically a random access memory (RAM), and uni-directionally with a second primary storage area 606, typically a read-only memory (ROM), via a memory bus 608. As is well known in the art, primary storage 604 can be used as a general storage area and as scratch-pad memory, and can also be used to store input data and

processed data. It can also store programming instructions and data, in the form of a field map domain database or a standard field name list, to name just two example, in addition to other data and instructions for processes operating on CPU 602, and is used typically used for fast transfer of data and instructions in a bi-directional manner over the memory bus 608. Also as well known in the art, primary storage 606 typically includes basic operating instructions, program code, data and objects used by the CPU 602 to perform its functions. Primary storage devices 604 and 606 may include any suitable computer-readable storage media, described below, depending on whether, for example, data access needs to be bi-directional or uni-directional. CPU 602 can also directly and very rapidly retrieve and store frequently needed data in a cache memory 610.

A removable mass storage device 612 provides additional data storage capacity for the computer system 600, and is coupled either bi-directionally or uni-directionally to CPU 602 via a peripheral bus 614. For example, a specific removable mass storage device commonly known as a CD-ROM typically passes data uni-directionally to the CPU 602, whereas a floppy disk can pass data bi-directionally to the CPU 602. Storage 612 may also include computer-readable media such as magnetic tape, flash memory, signals embodied on a carrier wave, PC-CARDS, portable mass storage devices, holographic storage devices, and other storage devices. A fixed mass storage 616 also provides additional data storage capacity and is coupled bi-directionally to CPU 602 via peripheral bus 614. The most common example of mass storage 616 is a hard disk drive. Generally, access to these media is slower than access to primary storages 604 and 606.

Mass storage 612 and 616 generally store additional programming instructions, data, and the like that typically are not in active use by the CPU 602. It will be appreciated that the information retained within mass storage 612 and 616 may be incorporated, if needed, in standard fashion as part of primary storage 604 (e.g., RAM) as virtual memory.

In addition to providing CPU 602 access to storage subsystems, the peripheral bus 614 is used to provide access other subsystems and devices as well. In the described embodiment, these include a display monitor 618 and adapter 620, a printer device 622, a network interface 624, an auxiliary input/output device interface 626, a sound card 628 and speakers 630, and other subsystems as needed.

The network interface 624 allows CPU 602 to be coupled to another computer, computer network, or telecommunications network using a network

connection as shown. Through the network interface 624, it is contemplated that the CPU 602 might receive information, e.g., data objects or program instructions, from another network, or might output information to another network in the course of performing the above-described method steps. Information, often represented as a sequence of instructions to be executed on a CPU, may be received from and outputted to another network, for example, in the form of a computer data signal embodied in a carrier wave. An interface card or similar device and appropriate software implemented by CPU 602 can be used to connect the computer system 600 to an external network and transfer data according to standard protocols. That is, method embodiments of the present invention may execute solely upon CPU 602, or may be performed across a network such as the Internet, intranet networks, or local area networks, in conjunction with a remote CPU that shares a portion of the processing. Additional mass storage devices (not shown) may also be connected to CPU 602 through network interface 624.

Auxiliary I/O device interface 626 represents general and customized interfaces that allow the CPU 602 to send and, more typically, receive data from other devices such as microphones, touch-sensitive displays, transducer card readers, tape readers, voice or handwriting recognizers, biometrics readers, cameras, portable mass storage devices, and other computers.

Also coupled to the CPU 602 is a keyboard controller 632 via a local bus 634 for receiving input from a keyboard 636 or a pointer device 638, and sending decoded symbols from the keyboard 636 or pointer device 638 to the CPU 602. The pointer device may be a mouse, stylus, track ball, or tablet, and is useful for interacting with a graphical user interface.

In addition, embodiments of the present invention further relate to computer storage products with a computer readable medium that contain program code for performing various computer-implemented operations. The computer-readable medium is any data storage device that can store data which can thereafter be read by a computer system. The media and program code may be those specially designed and constructed for the purposes of the present invention, or they may be of the kind well known to those of ordinary skill in the computer software arts. Examples of computer-readable media include, but are not limited to, all the media mentioned above: magnetic media such as hard disks, floppy disks, and magnetic tape; optical media such as CD-ROM disks; magneto-optical media such as floptical disks; and specially configured hardware devices such as application-specific integrated circuits

(ASICs), programmable logic devices (PLDs), and ROM and RAM devices. The computer-readable medium can also be distributed as a data signal embodied in a carrier wave over a network of coupled computer systems so that the computer-readable code is stored and executed in a distributed fashion. Examples of program code include both machine code, as produced, for example, by a compiler, or files containing higher level code that may be executed using an interpreter.

It will be appreciated by those skilled in the art that the above described hardware and software elements are of standard design and construction. Other computer systems suitable for use with the invention may include additional or fewer subsystems. In addition, memory bus 608, peripheral bus 614, and local bus 634 are illustrative of any interconnection scheme serving to link the subsystems. For example, a local bus could be used to connect the CPU to fixed mass storage 616 and display adapter 620. The computer system shown in FIG. 6 is but an example of a computer system suitable for use with the invention. Other computer architectures having different configurations of subsystems may also be utilized.

Although the foregoing invention has been described in some detail for purposes of clarity of understanding, it will be apparent that certain changes and modifications may be practiced within the scope of the appended claims. Furthermore, it should be noted that there are alternative ways of implementing both the process and apparatus of the present invention. For example, a Bayesian network or neural network can be used instead of a linear algebra based learning system to create the list of predicted standard field names and maintain the master knowledge base. Accordingly, the present embodiments are to be considered as illustrative and not restrictive, and the invention is not to be limited to the details given herein, but may be modified within the scope and equivalents of the appended claims.

What is claimed is:

1. A method of mapping a standard field name with a legacy field name from an electronic legacy form, the method comprising:

extracting a legacy field name from an electronic legacy form;

creating a list of one or more predicted standard field names that are most likely to map to the legacy field name;

selecting a predicted standard field name from the list that maps to the legacy field name; and

adjusting a knowledge base used to create the list of one or more predicted standard field names to reflect the selection of the predicted standard field name that maps to the legacy field name.

2. A method as recited in claim 1 wherein extracting a legacy field name further comprises:

parsing the electronic legacy form; and

creating a document object model.

3. A method as recited in claim 2 wherein the document object model is a linear object model.

4. A method as recited in claim 1 wherein the list of one or more predicted standard field names are drawn from a standard field name list containing a plurality of field names commonly found in vendor forms.

5. A method as recited in claim 1 further comprising:

creating an initial training set containing manually entered field mapping data.

6. A method as recited in claim 1 wherein the knowledge base is stored in a field map domain database.

7. A method as recited in claim 1 wherein creating a list of one or more predicted standard field names further comprises:

utilizing one or more evidence variables to determine standard field names most likely to map to the legacy field name.

8. A method as recited in claim 7 wherein at least one evidence variable is relative distance of a term from the legacy field name being examined.

9. A method as recited in claim 1 wherein the knowledge base is a vector set having a plurality of vectors, wherein a vector represents a standard field name.

10. A method as recited in claim 1 wherein the list of one or more standard field names is created using a linear algebra algorithm.

11. A computer-readable medium containing programmed instructions arranged to map a standard field name with a legacy field name from an electronic legacy form, the computer-readable medium including programmed instructions for:

extracting a legacy field name from an electronic legacy form;

creating a list of one or more predicted standard field names that are most likely to map to the legacy field name;

selecting a predicted standard field name from the list that maps to the legacy field name; and

adjusting a knowledge base used to create the list of one or more predicted standard field names to reflect the selection of the predicted standard field name that maps to the legacy field name.

FIG. 1

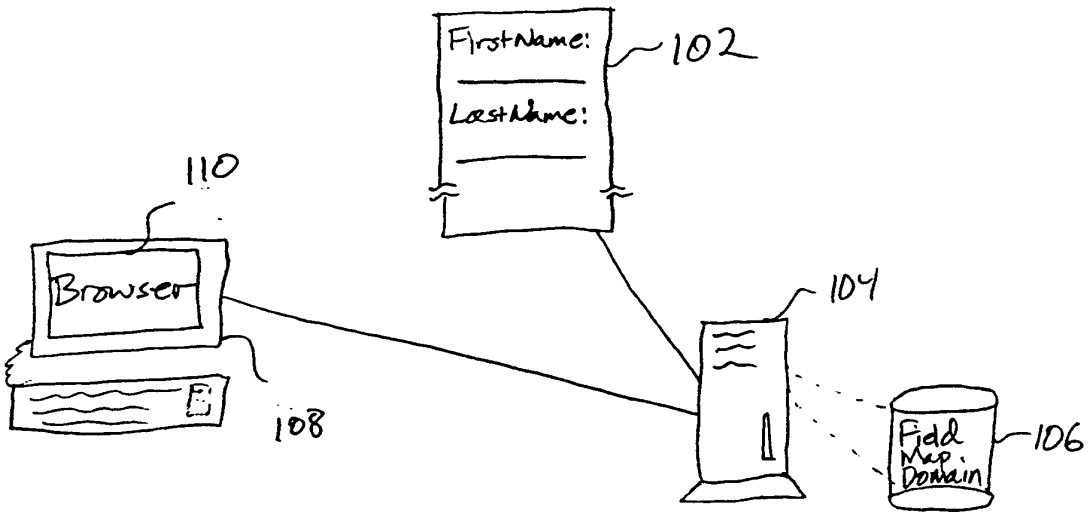

FirstName:
LastName:
102
110
Browser
108
104
Fidd
Map
Domain
106

FIG. 2

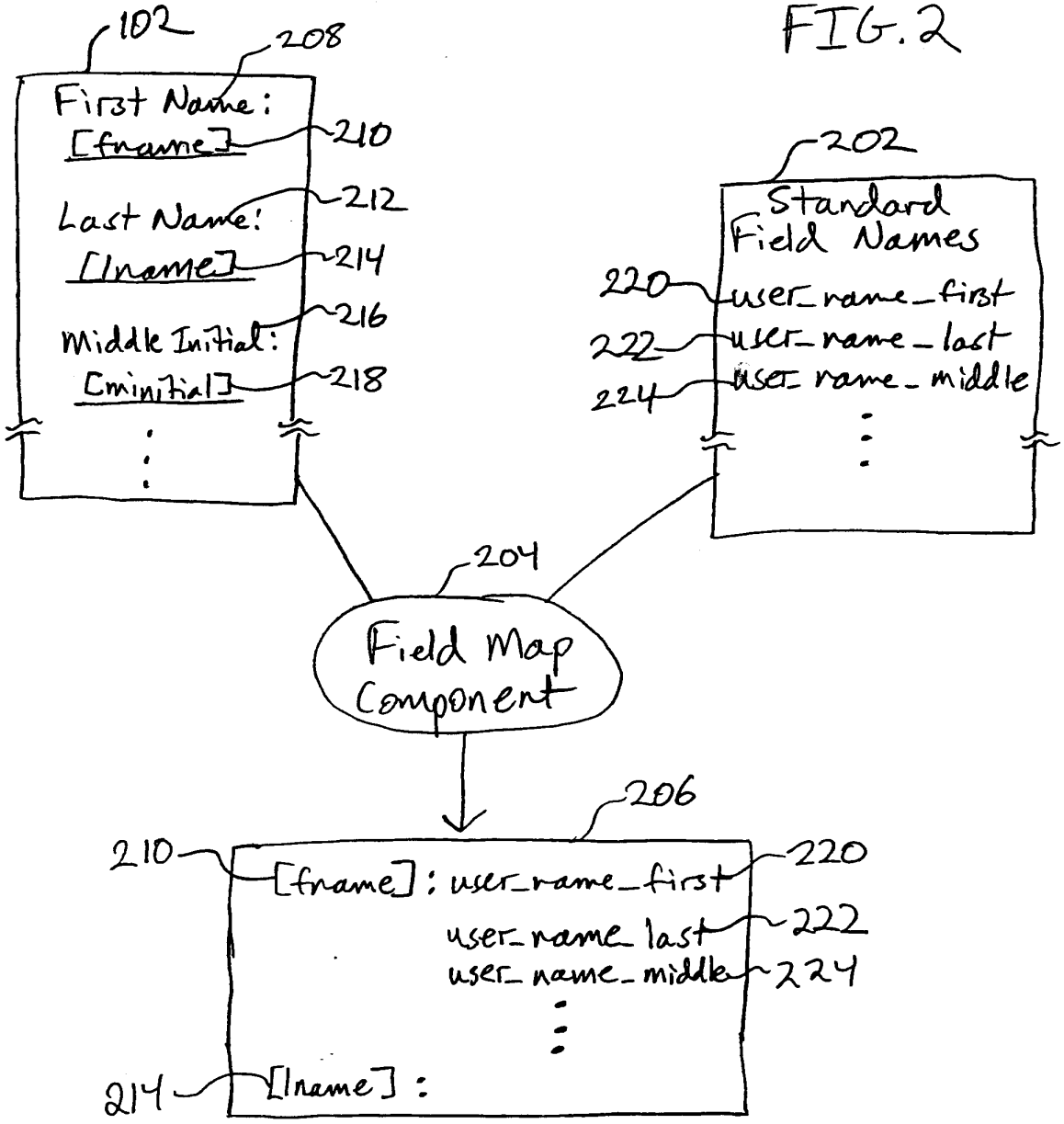

102
208
First Name:
[fname]
210
Last Name:
212
[lname]
214
Middle Initial:
216
[minitial]
218
202
Standard
Field Names
220
user_name_first
222
user_name_last
224
user_name_middle
204
Field Map
Component
206
210
[fname]: user_name_first
220
user_name_last
222
user_name_middle
224
214
[lname]:

FIG. 3A

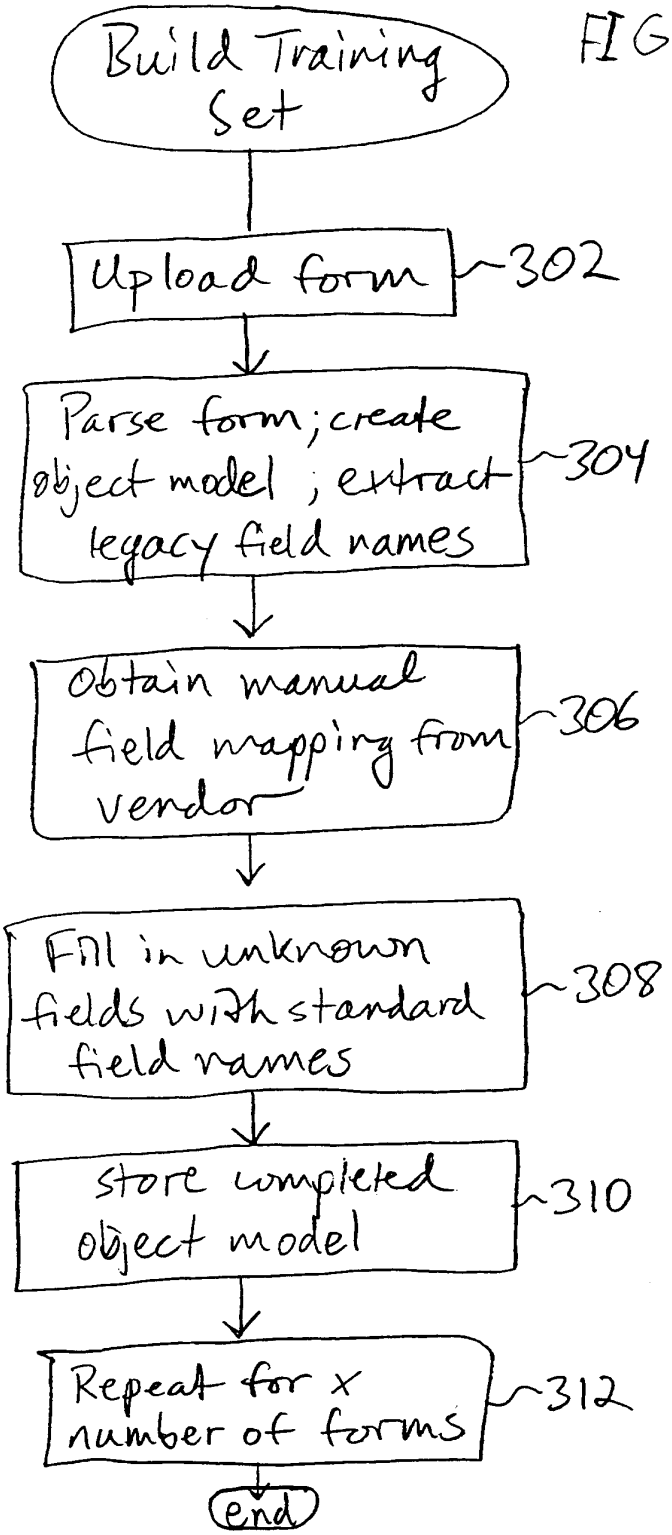

Build Training Set
Upload form
302
Parse form; create object model; extract legacy field names
304
Obtain manual field mapping from vendor
306
Fill in unknown fields with standard field names
308
store completed object model
310
Repeat for x number of forms
312
end

FIG. 3B

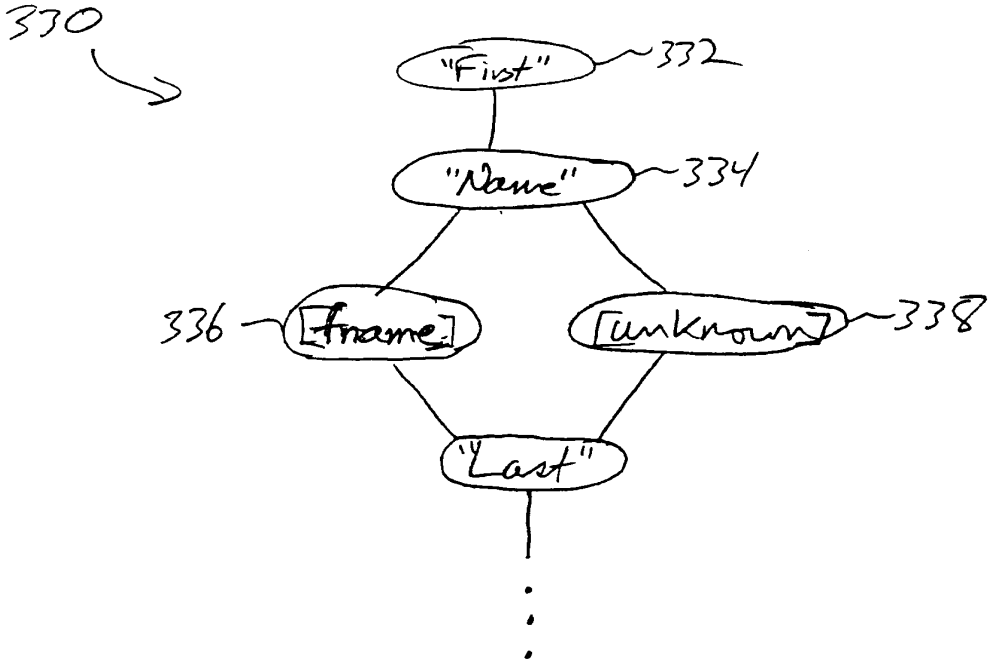


FIG. 4

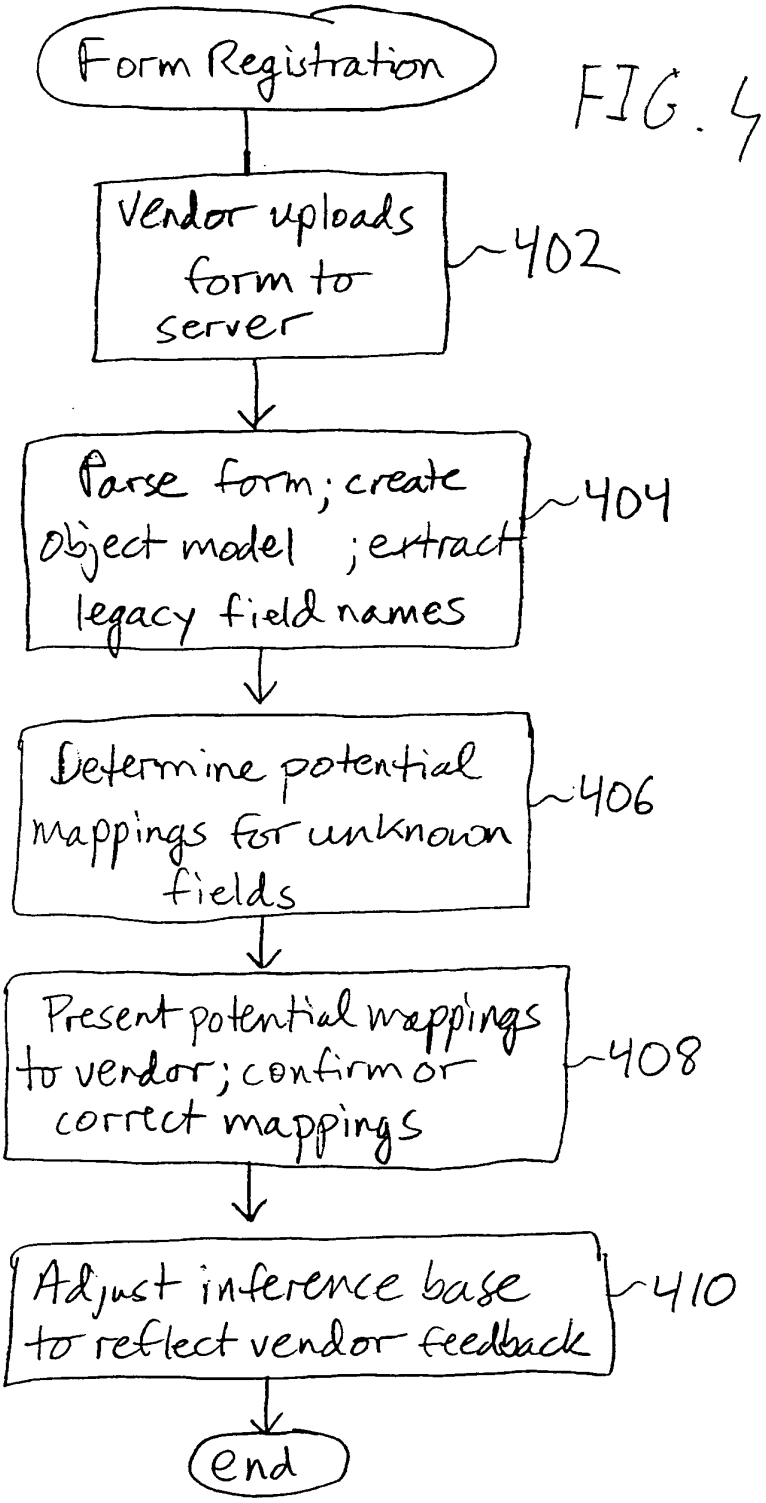
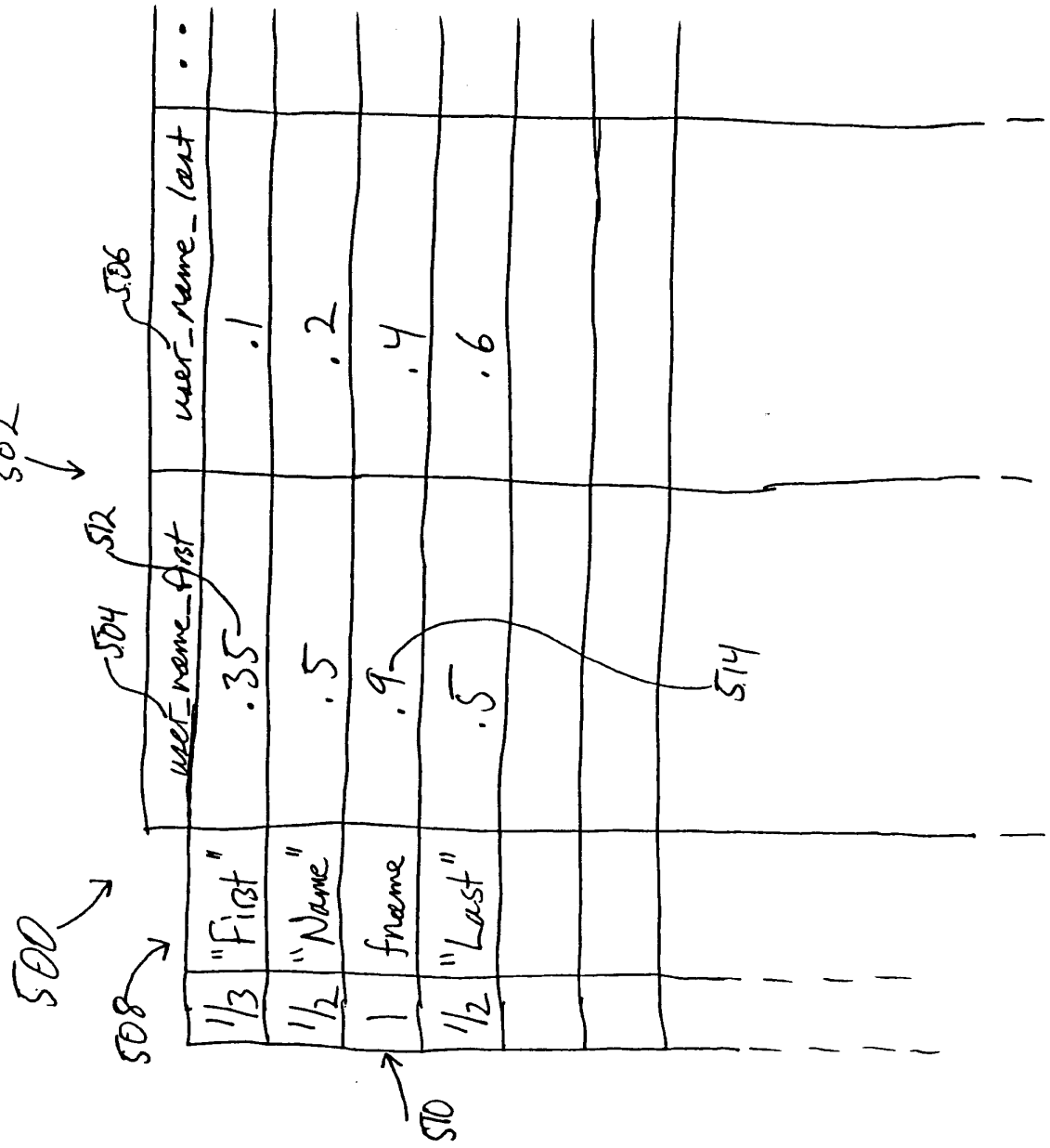

Form Registration
Vendor uploads form to server
402
Parse form; create object model; extract legacy field names
404
Determine potential mappings for unknown fields
406
Present potential mappings to vendor; confirm or correct mappings
408
Adjust inference base to reflect vendor feedback
410
end

FIG. 5


500
502
504
506
508
510
512
514
user_name_first
user_name_last
"First"
"Name"
frame
"Last"
1/3
1/2
1
1/2
.35
.5
.9
.5
.1
.2
.4
.6

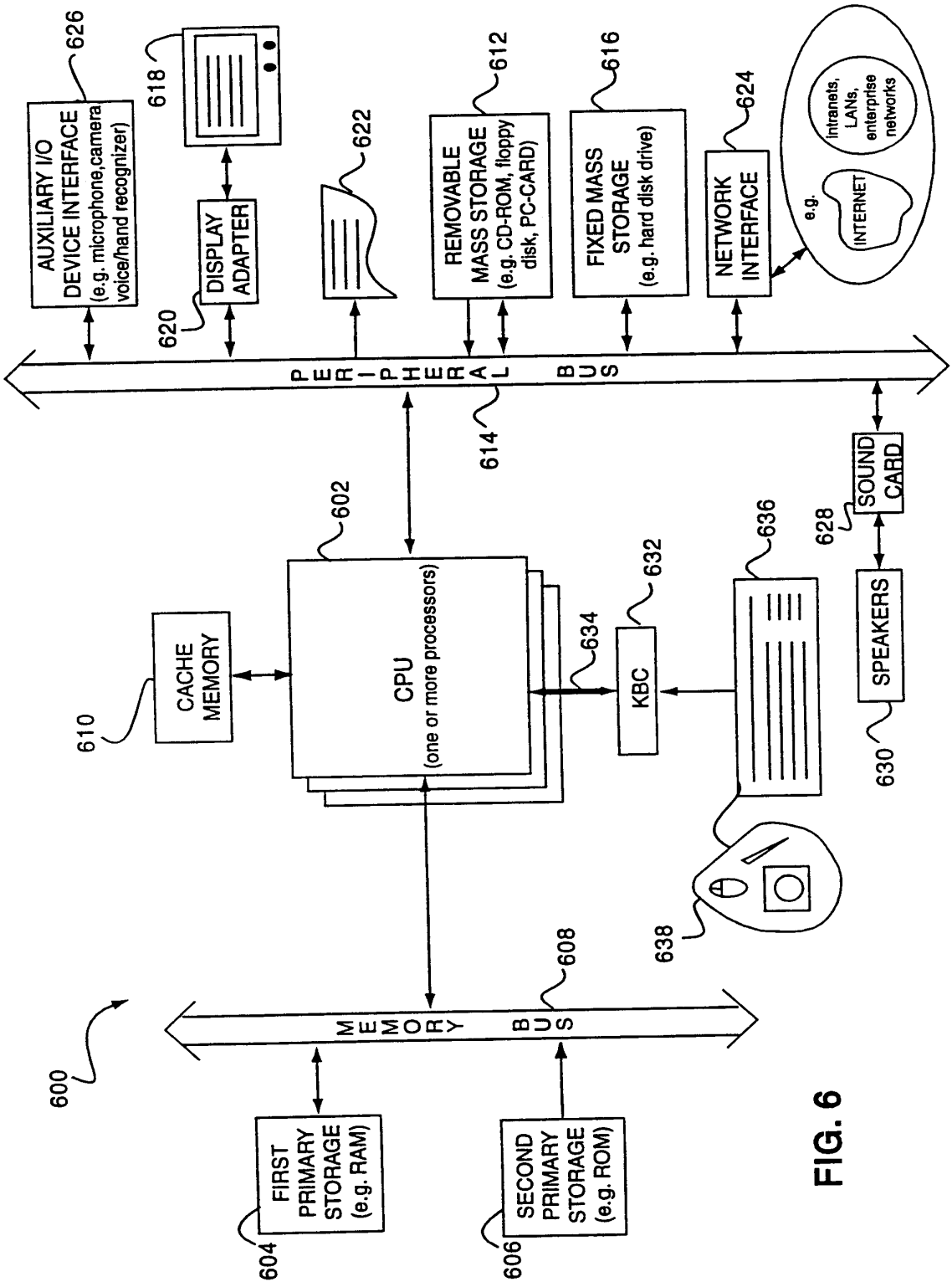

600
602
CPU
(one or more processors)
604
FIRST PRIMARY STORAGE (e.g. RAM)
606
SECOND PRIMARY STORAGE (e.g. ROM)
608
MEMORY BUS
610
CACHE MEMORY
612
REMOVABLE MASS STORAGE (e.g. CD-ROM, floppy disk, PC-CARD)
614
PERIPHERAL BUS
616
FIXED MASS STORAGE (e.g. hard disk drive)
618
620
DISPLAY ADAPTER
622
624
NETWORK INTERFACE
e.g.
INTERNET
Intranets, LANs, enterprise networks
626
AUXILIARY I/O DEVICE INTERFACE (e.g. microphone,camera voice/hand recognizer)
628
SOUND CARD
630
SPEAKERS
632
KBC
634
636
638

FIG. 6

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(71) Applicant *(for all designated States except US)*: **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **PITCHERS, Stephen, M.** [GB/GB]; c/o Philips Intellectual Property, & Standards, Cross Oak Lane, Redhill Surrey RH1 5HA (GB).

(74) Agents: **WHITE, Andrew, G.** et al.; c/o Philips Intellectual Property, & Standards, Cross Oak Lane, Redhill Surrey RH1 5HA (GB).

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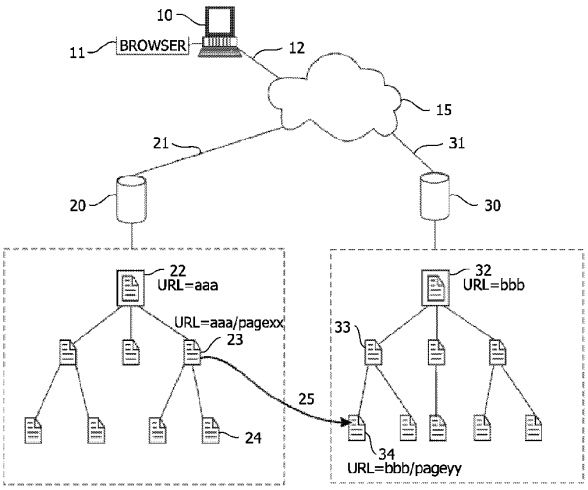
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(54) Title: PROCESSING REQUESTS FOR CONTENT PAGES FROM DEEP-LINKING VISITORS



(57) Abstract: A server (30) hosts a site comprising a plurality of content pages (33, 34) in a hierarchical manner beneath a main page (32). When server (30) receives a request to access a page which is at a level below the main page it determines whether the request originates from a user who has been referred from another site (a deep-link). Server (30) allows access to the requested page and modifies the content of the requested page. The page can be modified to include content based on the identity of the referring site and can include links back to pages of the referring site. Server (30) may allow restricted access to the requested page to that user for a limited period of time or a limited number of accesses.

WO 2006/103616 A1

DESCRIPTION

PROCESSING REQUESTS FOR CONTENT PAGES FROM DEEP-LINKING VISITORS

This invention relates to a server which stores content pages, such as a web server, and to a method of processing requests for content pages from the server.

Interconnected data networks, such as the Internet, are widely used to obtain information. Servers host websites which offer a set of content pages. A basic principle of websites is that of linking between pages and sites so that a user can easily move from one content page to another, and from one website to another site. In this way, a user can easily find the information they are searching for.

Figure 1 shows two servers 20, 30 each connected 21, 31 to a communication network 15 such as the Internet. Each server 20, 30 hosts a website which comprises a set of content pages 22, 23, 24, 32, 33, 34. The pages are accessible by browser software 11 on a user terminal 10 in a well known manner. Each page is associated with a Uniform Resource Locator (URL) which allows the page to be referenced by a browser. Each website hosted by a server 20, 30 has a home page 22, 32. The home page has a high-level Uniform Resource Locator (URL), such as http://www.philips.com. Other pages 23, 24, 33, 34 within each server are stored in a hierarchical manner beneath the home page. Pages typically comprise a collection of images and text with embedded links (hyperlinks) to the other pages on that server. A user can select a hyperlink, using their browser, to retrieve another page on the server. Pages within a single server 20 will typically include links to other pages within that server 20 (e.g. page 23 can include a link to page 24) and to home pages of other servers, such as the home page 32 on server 30. It is also possible to include direct links to pages on other servers which are positioned at a level beneath the home page. This practice is generally

known as 'deep-linking'. Figure 1 shows an example of a deep link 25 between a page 23 on server 20 and a page 34 on server 30.

Some organisations are reluctant to allow deep links to pages on their website, instead preferring all visitors to navigate down through the hierarchy of pages from the site's own homepage. A server hosting a website can control deep-linking by refusing attempts to directly access pages beneath the home page or by requiring a user to enter authorisation data, such as a username and password, to access deep links. This restriction on the manner in which viewers are allowed to locate, reference and access web pages stands against one of the main positive effects of the Web, which is making information easy to find and retrieve. Users trying to access information via a deep link already know the page of most interest to them and they prefer to be taken there immediately. If such users are required to navigate down from the top level homepage of the site, they will experience a disincentive to access the information at all. Some websites are complex, with many levels, and it may be very difficult to locate the desired information by following the links down from the home page. The website owning the deep linked page thereby loses the opportunity of establishing a fruitful relationship with a new customer.

The present invention seeks to improve the way in which requests received from deep-linking visitors are processed.

Accordingly, a first aspect of the present invention provides a method of processing requests for content pages at a server which hosts a site comprising a plurality of content pages arranged in a hierarchical manner beneath a main page, the method comprising:

receiving a request to access a page which is at a level below the main page;

determining whether the request originates from a user who has been referred from another site; and, if so,

allowing access to the requested page and modifying the content of the requested page.

Rather than rejecting all requests to access pages beneath the home page from users who have been referred from another site, the server allows access to the requested pages and modifies the content of pages returned to users who reach the site in this manner. This can benefit the user, who receives content they would otherwise have been barred from accessing, and can allow the owner of the site to attract new users and to target content to the user. In this manner, visitors can follow a deep link to a site without any special prior set up or subscription on the part of the visitor.

Advantageously, the step of modifying the content of the page selects content to present in the requested page based on the identity of the referring site. This can include one or more links to pages of the referring site which are preferably links to pages beneath the home page of the referring site.

A second aspect of the invention provides a method of processing requests for content pages at a server which hosts a site comprising a plurality of content pages arranged in a hierarchical manner beneath a main page, the method comprising:

receiving a request to access a page which is at a level below the main page;

determining the identity of the user;

determining whether the user has been referred from another site; and, if so, permitting restricted access to the requested page to that user.

The access can be restricted in terms of a limited period of time, a limited number of accesses to the requested page (or pages) of the site or a combination of these criteria.

Both of these aspects of the invention solve a common problem of processing requests from users who are referred from another site. The first and second aspects of the invention can be combined with one another, and with any of the preferred features of the invention.

The functionality described here can be implemented in software, hardware or a combination of these. The invention can be implemented by means of hardware comprising several distinct elements, and by means of a suitably programmed processing platform. Accordingly, another aspect of the

invention provides a computer program product carrying instructions for implementing the method. The software may be stored on an electronic memory device, hard disk, optical disk or other machine-readable storage medium. The software may be downloaded directly to the server via a network connection.

Further aspects of the invention provide a controller for a server and a network server which perform the above method.

Embodiments of the present invention will now be described, by way of example only, with reference to the accompanying drawings, in which:-

Figure 1 schematically shows two websites and an example deep link between them;

Figure 2 shows a first embodiment of a method to process deep-linking requests;

Figure 3 shows a registration page which can be presented to deep-linking visitors;

Figure 4 shows messaging between network entities;

Figure 5 shows an example of customised content page;

Figure 6 shows functional blocks within a server to implement an embodiment of the invention; and,

Figure 7 shows a further example of a customised content page.

Figure 2 shows a first embodiment of a method performed at a server 30 to control deep-linking between servers. The scenario shown in Figure 1 will be used as an example, where a user at terminal 10 makes a direct request to access content page 34 on server 20 after following a link 25 provided by page 23 on server 20.

The method begins 50 by the server 30 receiving a request to access a page stored on that server. A visitor may reach the page 34 by following a link from another page (e.g. page 33) on server 30 or by following a link provided by another server. Step 51 determines whether the request is from a deep-link visitor, i.e. a request to directly access a page at a level beneath the home

page 32 which has been referred to the server 30 from another server 20. As will be described more fully below, messages exchanged between the server 30 and browser software 11 of the user identify the referring server 20. If the visitor is not a deep link visitor, then the requested page of content is delivered to the requesting user as normal at step 52 as the user is deemed to have navigated to that page from the home page. Returning to step 51, if the user is determined to be a deep-linking visitor, then the method begins a process of monitoring and restricting access to the site for that user. At step 53 the method determines whether the user has visited before. This can be achieved by inspecting the IP address of the user, or searching for a cookie stored on the user's terminal 10. If the user is determined to be a new visitor to the site (i.e. user's IP address is unknown, and no cookie can be found on the user's terminal 10) then a new visitor record is created for the user. The requested page is returned at step 55 but this can be customised from the form that it would normally take for a regular visitor who navigated to that page via the home page 32.

If at step 53 the user is determined to have visited the site before, then the visitor record is retrieved at step 56. For a scheme which restricts access to a limited number of accesses, the visitor record can include a variable representing a total count of accesses to that page. Each time the user visits a particular page via a deep linking method, the count is updated. In this embodiment a user is allowed three deep-link accesses to the site, although this limit could be set to any desired value. At step 57 the method checks whether this limit has been exceeded and, if it has been exceeded, invites the user to register with the site at step 58 by displaying a registration page such as the one shown in Figure 3. If the user has not exceeded their guest privileges of three accesses, the server returns the requested page at step 59, preferably customised from the form it would normally take.

It can be seen that with this scheme deep linking is encouraged, rather than forbidden. The web server 30 uses information about the deep link visitor to control access to the information on their website and to customise the pages returned in reply to a request. Allowing this kind of access can be a

good advertisement for the organisation's website, allowing potential customers to learn about the organisation and discover the benefits of their website. This will encourage users to register formally in order to be promoted to full access privileges. If instead the website refuses to serve any information at all to a deep link viewer, a potential customer will be lost.

The embodiment shown in Figure 2 combines two aspects of this invention: allowing access to deep-linking users for a limited period of time (or number of accesses) and customising content of pages for deep-linking users. Either of these aspects can be used in isolation. For a scheme which only limits deep-linking accesses, the steps 55, 59 return normal content rather than customised content. For a scheme which only customises content, then steps 53-58 are not required.

In the embodiment shown in Figure 2 a user is restricted to a limited number of deep-link accesses to a particular page, or set of pages, on the site. An alternative to this is to restrict a user to a particular time duration of deep-link accesses to the page, or set of pages, on the site. The method of controlling the server is similar to that shown in Figure 2, except that the visitor record stores a variable indicating the first time at which the user accessed the site, and this variable is compared with the current time at step 57. When the difference between the current time and the time of first access exceeds a predefined duration (e.g. 7 days), the user is barred from accessing the requested content. In a further embodiment the limits of the restricted access can take the form of a combination of a limited number of accesses and a limited time duration. The visitor record stores variables representing both number of accesses and the time of first access. In this way, the user is barred from accessing a page when either of the limits is exceeded (e.g. 3 accesses or 7 days.)

The method shown in Figure 2 can apply to a single content page, to a group of content pages or to all content pages on the site which are accessed in a deep-linking manner. Similarly, the restriction on user access can be set on a per content page basis, with a user's access to each content page being monitored and restricted on an independent basis from other pages. Thus, a

page representing a premium service offered by the site (e.g. directory enquiries) may restrict the number of deep-link user accesses, while other pages may not impose a limit, or may impose a different limit on the number of user accesses according to the their value. Alternatively, the limit can be an overall limit to deep-linking access to any of a group of content pages of the site.

In Figure 2, the content of pages returned to users who accessed the site via a deep link at steps 55, 59 is customised compared to the normal content of the page. The content can be customised based on the identity of the referring website. Figure 4 shows some of the messaging exchanged between server 20, browser 11 and server 30. A user is browsing content pages on server 20. A user requests 71 a page (e.g. page 23, Figure 1) and the contents of this page are downloaded to the browser 11 at step 72. Part of the downloaded data is an identity of the server (site) 20. The user then decides to select a deep link on the downloaded page 23. This causes the browser 11 to issue an HTTP GET message 74 which is sent to server 30 hosting the requested page. The parts of the GET message that are particularly relevant to this invention are: the URL of the requested page (http://bbb/pageyy), a field REMOTE-ADDR which identifies the IP address of the terminal 10 on which the browser is running and a field HTTP_REFERER which identifies the URL of the "referring page." This is the URL of the page carrying the hyperlink to the page now being requested. In this example, HTTP_REFERER is http://aaa/pagexx. At step 76 server 30 returns an HTTP message which carries the contents of the requested page. The REMOTE-ADDR and HTTP_REFERER fields in the GET message 74 can be used to determine visitor information for the purposes of controlling access and customising the HTTP message.

The content pages that are delivered by server 30 can either be prepared in advance and stored in HTML format, or generated on-the-fly using scripts such as Common Gateway Interface (CGI) scripts. Both of these techniques are well known to the skilled person and do not require further explanation. The customised versions of content pages that are returned to

deep-linking visitors can be separate versions of regular pages, which are prepared in advance and stored at the server 30, or the page-generating scripts can receive an instruction which varies the content of a page depending on whether or not the visitor is a deep-linking visitor. The customisation of content pages can take various forms. Figure 5 shows an example of a simple page layout 80 comprising regular content 82 and a banner 81 carrying content which is customised according to the identity of the referring site. Banner 81 can carry advertising that is considered to target the user, based on the identity of the referring site which the user previously visited. If the requested page usually carries third party advertising, this could be replaced by an advert for the organisation's own website or an invitation of the type shown as box 62 in Figure 3 to subscribe to the site. The customisation can be more complex, with the selection of text, images and other content throughout the page being varied according to the identity of the referring server. As noted above, server 30 receives a field HTTP_REFERER which identifies the referring site and the page on the referring site. Server 30 can customise the content of a page based on just the identity of the referring site (e.g. advert A for any visitors following a deep link from site http://aaa). Alternatively, server 30 can customise the content of a page based on the identity of the page of the referring site (e.g. advert A1 for any visitors following a deep link from page http://aaa/page1, advert A2 for any visitors following a deep link from page http://aaa/page2 etc.)

Referring again to Figure 2, step 51 of the method determines if the visitor is a deep-link visitor by inspecting the HTTP_REFERER field of the messaging 74 exchanged between the visitor's browser 11 and server 30. It is also possible to use cookies to track whether a user has visited the home page of the site. A cookie is set on the visitor's browser when a user visits the home page of the site. When a user subsequently follows a link to a page lower down the hierarchy of the site, the presence of the cookie on the user's terminal indicates that the user has visited the home page. To be sure of identifying a deep link access, a site may insist on cookies being enabled as a condition of returning content pages. There are several possible scenarios,

depending on how the visitor arrived at the current page beneath the home page. Table 1 shows four possible categories of visitor.

	HTTP_REFERER field	Home page Cookie?	Status
(i)	Same site	yes	Link from same site
(ii)	Another site	no	Deep-link from another site
(iii)	blank	no	Deep-link from another site
(iv)	blank	yes	Bookmark from visitor who has visited home page of site

Table 1 – identifying deep-link visitors

For category (a) visitors the HTTP_REFERER field received from the browser 11 identifies the same site. This indicates the visitor has followed a link from the same site. This is definitely not a deep-link visitor. For category (b) visitors the HTTP_REFERER field received from the browser 11 identifies another site. This is definitely a deep-link visitor. For category (c) and (d) visitors the HTTP_REFERER field is empty. This could indicate that the user is following a link stored in their browser – often called a 'bookmark' or 'favourite'. However, without additional information it is difficult to determine whether the bookmark was originally set from a deep link or not. Cookies can be used to help disambiguate this case. If server 30 operates in a manner where it instructs a visitor's browser 11 to store a cookie when the user visits the site's home page then the presence of the cookie (or a value set within the cookie) can be used to determine more accurately whether the visitor has followed a deep-link or not. If the HTTP_REFER field is blank but the visitor's machine has a cookie set to indicate that the home page has been visited, then the visitor is treated as a normal visitor. If the HTTP_REFERER field is blank and there is no cookie indicating that the home page of the site has been

visited, then this is highly indicative of the visitor having followed a deep link. The way in which visitors falling into categories (iii) and (iv) are treated can be set by the owner of the site hosted by server 30. The owner may only wish to modify content of pages, or restrict access to pages, to category (ii) visitors. Alternatively, the owner may choose to modify content of pages, or restrict access to pages, to category (ii), (iii) or (iv) visitors who are, or may be, following a deep-link.

Figure 6 shows the functional blocks required to implement the invention at a server 30. The server 30 includes a controller shown generally as 95. The server 30 has a network interface 91 which receives data packets from network 15. The data packets will typically be carried as IP packets over a data link protocol used by the network 15. Higher level protocols such as TCP and HTTP or FTP control the end-to-end transmission of the packets between network entities. Requests for content pages are screened by a deep-link visitor detection function 92, which implements the method shown in Figure 2, or one of the variants of this method described above. The detection function 92 accesses a store 93 to store a visitor record for each identified visitor and to update those records as visitors return to the site. A further type of record may store a log of referring websites. Allowable requests for content pages are forwarded to a page creation/retrieval function 96. The requests specify whether a 'normal' or a 'customised' page is required. Alternatively, if a visitor has reached the limits of their restricted access, the requests may specify that the page creation/retrieval function 96 should deny access to content pages. The page creation/retrieval function 96 creates content pages using stored scripts, or retrieves previously created pages, using content retrieved from a store 98. Store 98 also stores content used in customising the pages.

There are several ways to identify a particular visitor for the purposes of detecting how many times they access the site via a deep link. The two main methods are (i) visitor's IP address and (ii) cookie-based method. Each method has it's associated advantages and disadvantages. In method (i) the server 30 stores the IP address from which the request was received. This will

usually be the address of the user's terminal but in some cases, such as where the user is communicating via a proxy server, the address will not be a reliable indication of the user. An advantage of using the IP address is that browsers without cookies enabled will still be able to access the site. In method (ii) server 30 instructs the user's terminal 10 to store a cookie. By subsequently checking for the presence of the cookie on a terminal requesting access to a page, the server 30 can precisely identify a particular user. In cases where multiple viewers appear to be coming from the same IP address, such as when a proxy server is used, a combination of these methods can be employed in order to maximise the chances of being able to recognise returning visitors.

To be sure of identifying a deep link access, a site may insist on cookies being enabled as a condition of returning content pages. Cookies can also be used to track whether a user has visited the home page of the site. On accessing the home page server 30 instructs the user's machine 10 to store a cookie which carries a flag indicating that the home page has been visited. When subsequently accessing a page further down the hierarchy the server 30 checks whether the user's machine has a cookie with the flag set to indicate that the home page has been visited. If the flag is set, then the normal (non deep link) version of the page is returned.

Other ways of identifying a user can be used. The choice of identification method is not important as long as it allows visitors to be recognised and monitored accurately enough for the purposes of implementing the website's own access policy.

As described above with reference to Figure 6, the deep link visitor detection function 92 can maintain a log of which sites are referring visitors to the site, with information such as visitor numbers, date and time of visit. This information can be used to negotiate an access arrangement between the owner of the site hosted by server 30 and other sites. As an example, the site hosted by server 30 may subsequently decide to allow unlimited access to visitors who reach the site via the site hosted by server 20. Alternatively, registration data could be shared between the two organisations, allowing

better tracking of customers' needs leading to a better service from both organisations.

Another illustration of how referrer information can be mutually beneficial to all parties is the following scenario. Suppose a user is seeking to buy an appliance (say a food mixer). The user follows a link from a retailer's website (hosted by server 20) which is selling that appliance to a page of the site of the manufacturer of that appliance (hosted by server 30) for information regarding the appliance. The manufacturer's page 100 is shown in Figure 7. The normal content of the page for the item is shown as 102. Server 30 recognises the identity of the referring site and modifies the margins of the content page it would normally present for that item to present a set 104 of return deep links (105-108) showing other appliances from the manufacturer that can also be bought from the retailer who referred the user. It is advantageous that the owners of sites hosted by servers 20, 30 co-operate with one another in establishing a set of acceptable return links. This would ensure that the owner of the site hosted by server 20 maintains the pages that are referred to in the set 104 of return deep links. However, this co-operation is not essential. The return deep links can be created by an automatic search engine, which searches for relevant pages on the referring site to link to, or by manually finding appropriate pages. Where a large set of return links are possible (e.g. in the example above the retailer owning the site hosted by server 20 stocks many similar products produced by the manufacturer owning the site hosted by server 30) a sub-set of links can be presented to a user as set 104. The set 104 can be chosen on a random basis from the overall set of suitable links.

Where the site hosted by server 30 directly sells products, it is also possible for the site to recognise the identity of the referring site and to modify the offer price of the product so that it is cheaper than the price known to be offered by the referring retailer.

In the examples described above two websites have been shown which are each hosted by a respective server 20, 30. It will be appreciated that a single server may host multiple websites, and the method will still operate

under these circumstances by inspecting the URL of the referring site, since the URL will be different for each site hosted by a common sever.

It should be noted that the above-mentioned embodiments illustrate rather than limit the invention, and that those skilled in the art will be able to design many alternative embodiments without departing from the scope of the appended claims. In the claims, any reference signs placed between parentheses shall not be construed as limiting the claim. The words "comprising" and "including" do not exclude the presence of other elements or steps than those listed in the claim. Where the system/device/apparatus claims recite several means, several of these means can be embodied by one and the same item of hardware.

In the description above, and with reference to the Figures, there is described a server 30 which hosts a site comprising a plurality of content pages 33, 34 in a hierarchical manner beneath a main page 32. When server 30 receives a request to access a page which is at a level below the main page it determines whether the request originates from a user who has been referred from another site (a deep-link). Server 30 allows access to the requested page and modifies the content of the requested page. The page can be modified to include content based on the identity of the referring site and can include links back to pages of the referring site. Server 30 may allow restricted access to the requested page to that user for a limited period of time or a limited number of accesses.

CLAIMS

1. A method of processing requests for content pages at a server (30) which hosts a site comprising a plurality of content pages (33, 34) arranged in a hierarchical manner beneath a main page (32), the method comprising:

receiving a request to access a page which is at a level below the main page (32);

determining whether the request originates from a user who has been referred from another site; and, if so,

allowing access to the requested page and modifying the content of the requested page.

2. A method according to claim 1 wherein the step of modifying the content of the page comprises including an invitation to subscribe to the site.

3. A method according to claim 1 or 2 wherein the step of modifying the content of the page comprises selecting content to present in the requested page based on the identity of the referring site (20).

4. A method according to claim 3 wherein the step of modifying the content of the page comprises including a return link to a page on the referring site (20).

5. A method according to any one of the preceding claims further comprising determining the identity of the user (10) and permitting restricted access to the requested page to that user.

6. A method according to claim 5 further comprising creating a record for a new user, updating the record when the user subsequently visits the site and using the record to determine when the user has reached a limit of the restricted access.

7. A method according to claim 5 wherein the restricted access comprises permitting the user to access the requested page for a limited period of time.

8. A method according to any one of claims 5 to 7 wherein the restricted access comprises permitting the user to make a limited number of accesses to the requested page.

9. A method according to any one of claims 5 to 8 wherein the restricted access is permitted to a set of pages of the site.

10. A method according to any one of claims 5 to 9 further comprising denying access to the requested page to the user when the limit of the restricted access is reached.

11. A method according to any one of claims 5 to 10 further comprising inviting the user to subscribe to the site before, or after, the limit of the restricted access is reached.

12. A method according to any one of the preceding claims wherein the step of determining whether the request originates from a user who has been referred from another site includes determining whether the user has a cookie stored on their terminal which indicates that the main page of the site has been visited.

13. A method of processing requests for content pages at a server (30) which hosts a site comprising a plurality of content pages (33, 34) arranged in a hierarchical manner beneath a main page (32), the method comprising:

receiving a request to access a page which is at a level below the main page (32);

determining the identity of the user (10);

determining whether the user (10) has been referred from another site; and, if so, permitting restricted access to the requested page to that user.

14. Instructions for causing a server to perform the method of any one of the preceding claims.

15. A computer-readable carrier storing the instructions of claim 14.

16. A controller for a server, the server being operable to store a plurality of content pages in a hierarchical manner beneath a main page and having a network interface for receiving user requests for pages from a network, the controller being operable to perform the method according to any one of claims 1 to 13.

17. A network server (30) comprising:

a store (98) for storing a plurality of content pages (33, 34) in a hierarchical manner beneath a main page (32);

a network interface (91) for receiving user requests for pages from a network (15); and,

a controller (95) which is operable to control operation of the server (30), the controller (95) being operable to perform the method according to any one of claims 1 to 13.

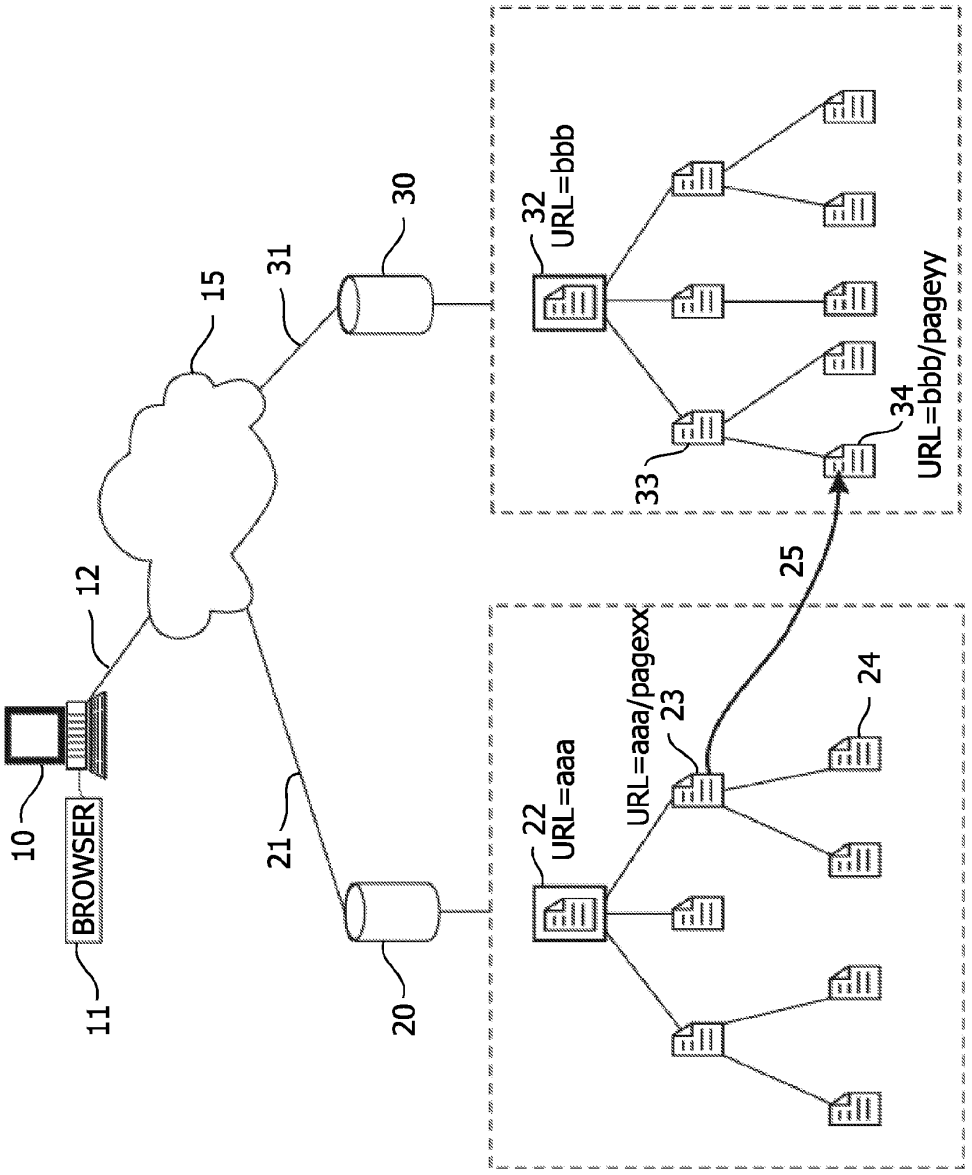

10
BROWSER
11
12
15
20
21
22
URL=aaa
23
URL=aaa/pagexx
24
25
30
31
32
URL=bbb
33
34
URL=bbb/pageyy

FIG. 1

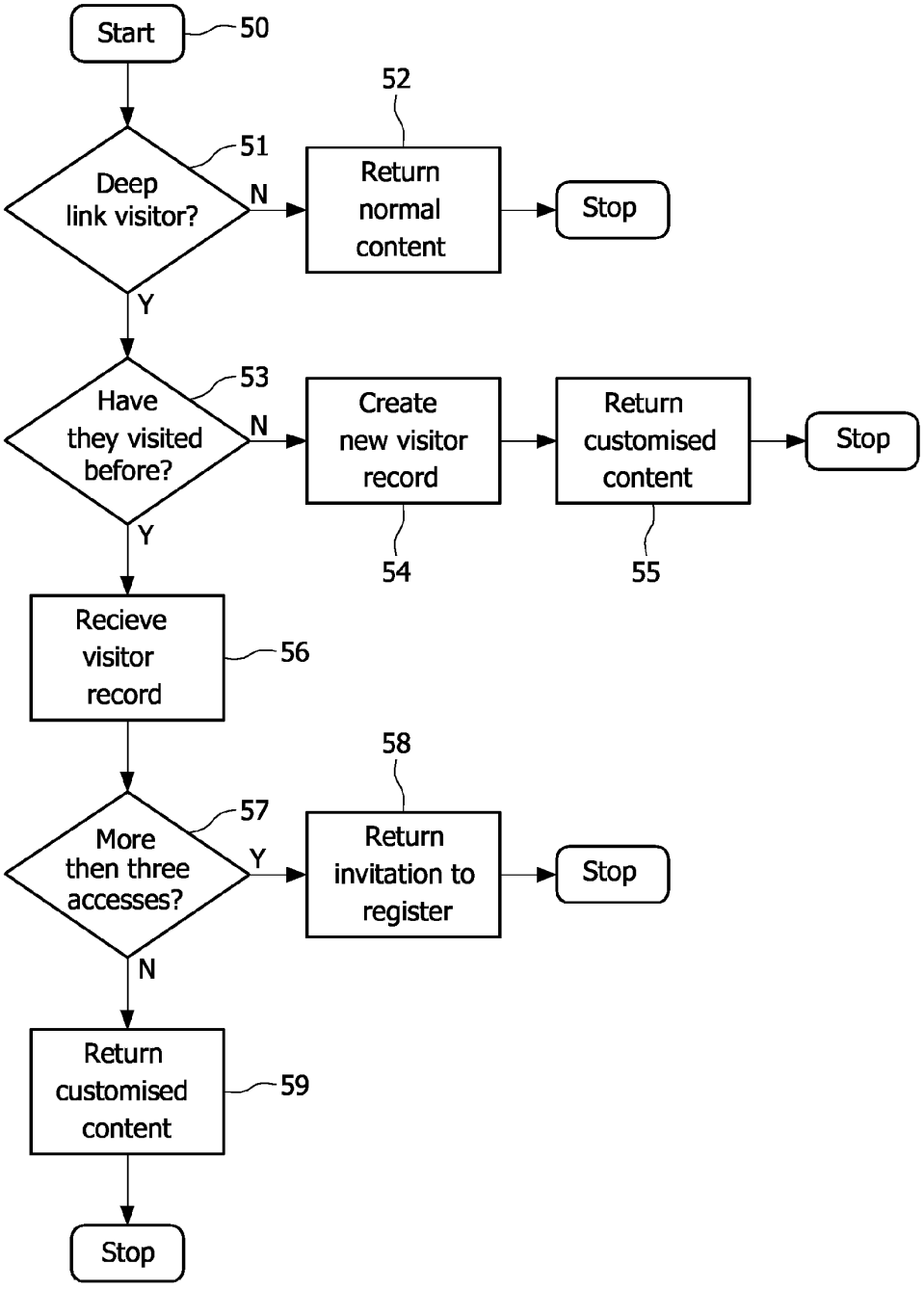

Start
50
52
51
Deep link visitor?
N
Return normal content
Stop
Y
53
Have they visited before?
N
Create new visitor record
Return customised content
Stop
Y
54
55
Recieve visitor record
56
58
57
More then three accesses?
Y
Return invitation to register
Stop
N
Return customised content
59
Stop

FIG. 2

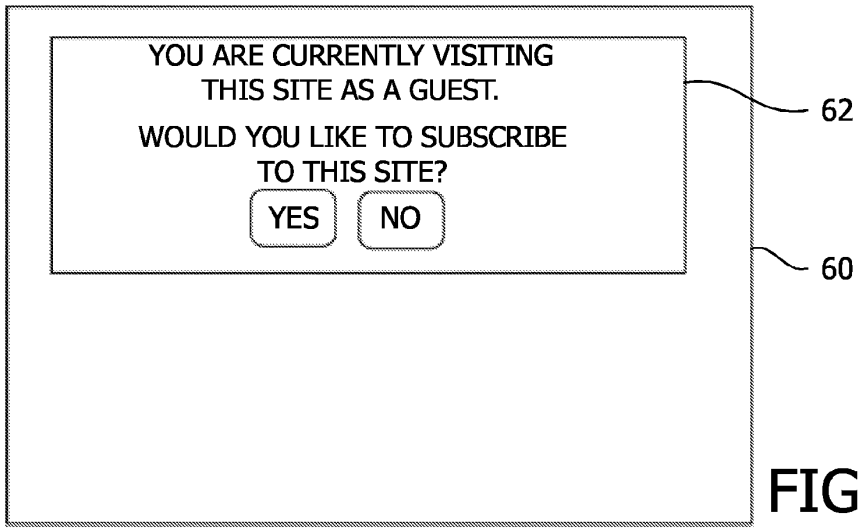


FIG. 3

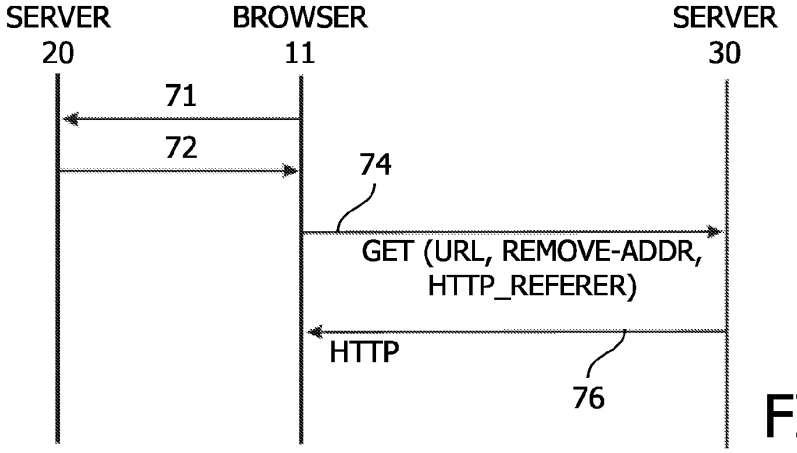


FIG. 4

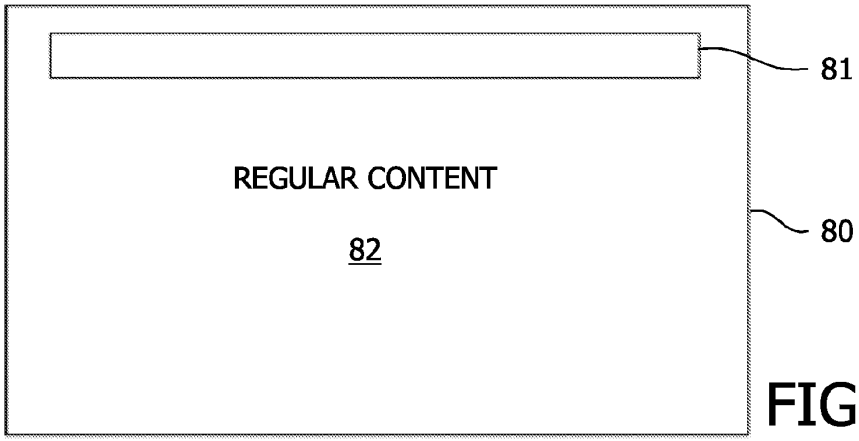


FIG. 5

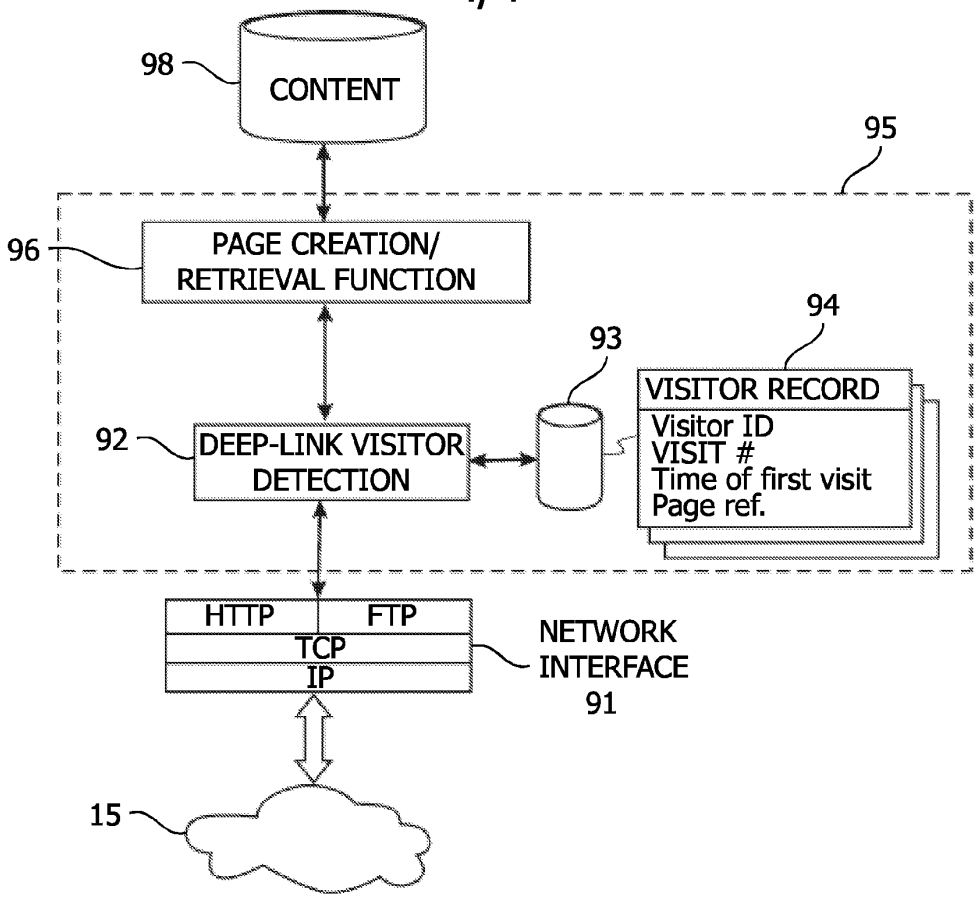

98
CONTENT
95
96
PAGE CREATION/
RETRIEVAL FUNCTION
94
93
VISITOR RECORD
Visitor ID
VISIT #
Time of first visit
Page ref.
92
DEEP-LINK VISITOR
DETECTION
HTTP
FTP
TCP
IP
NETWORK
INTERFACE
91
15

FIG. 6

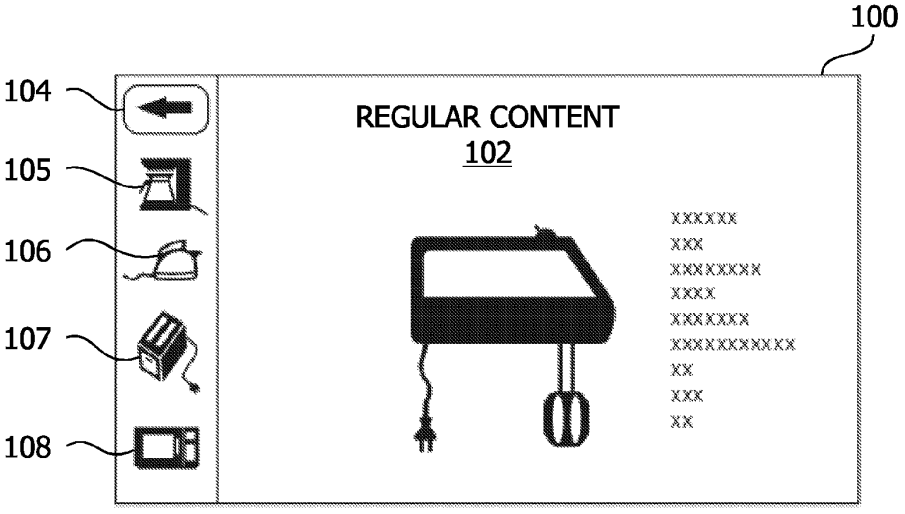

100
104
105
106
107
108
REGULAR CONTENT
102
xxxxxx
xxx
xxxxxxx
xxxx
xxxxxx
xxxxxxxxxx
xx
xxx
xx

FIG. 7

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2006/050923

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F17/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G06F

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

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/069261 A1 (BELLARE KIRAN GURUDUTT ET AL) 6 June 2002 (2002-06-06) abstract paragraph [0008] - paragraph [0020] paragraph [0022] - paragraph [0025] figure 1	1-17
X	US 2001/034646 A1 (HOYT EDWARD G ET AL) 25 October 2001 (2001-10-25) abstract paragraph [0026] - paragraph [0038] paragraph [0040] - paragraph [0069]	1-17
X	US 6 029 141 A (BEZOS ET AL) 22 February 2000 (2000-02-22) abstract column 1, line 50 - column 2, line 65 column 6, line 1 - column 9, line 39	1-17

-/--

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
6 July 2006	14/07/2006

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Dumitrescu, C

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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2006/050923

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/047347 A1 (PERELL WILLIAM S ET AL) 29 November 2001 (2001-11-29) abstract paragraph [0016] paragraph [0060] paragraph [0297] - paragraph [0308]	1-17
A	WO 01/80126 A (JUSTADDSALES. COM, INC; HOWEY, DAVID, C; HOWEY, PAUL, D) 25 October 2001 (2001-10-25) abstract page 34, line 6 - page 38, line 11 page 65 - page 72	1-17
A	WO 01/89170 A (INTERACTIVE VIDEO TECHNOLOGIES, INC; WASON, ANDREW) 22 November 2001 (2001-11-22) the whole document	1-17

Form PCT/ISA/210 (continuation of second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/IB2006/050923

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002069261 A1	06-06-2002	NONE	
US 2001034646 A1	25-10-2001	NONE	
US 6029141 A	22-02-2000	NONE	
US 2001047347 A1	29-11-2001	NONE	
WO 0180126 A	25-10-2001	AU 5340301 A US 2002010639 A1	30-10-2001 24-01-2002
WO 0189170 A	22-11-2001	AU 6162201 A	26-11-2001

Form PCT/ISA/210 (patent family annex) (April 2005)

TRANSMITTAL FOR POWER OF ATTORNEY FOR ONE OR MORE REGISTERED PRACTITIONERS

Patent No./Application No.:	Not Yet Assigned
Issue Date/Filing Date:	Herewith
First Named Inventor:	Narendra Nath
Title:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
Assignee:	MetaRail, Inc.

Statement Under 37 C.F.R. § 3.73

Assignee is:

1. ☒ Assignee of the entire right, title and interest in the above-referenced patent/patent application;

2. ☐ Assignee of less than the entire right, title and interest in the above-referenced patent/patent application:

☐ The extent (by percentage) of its ownership interest is _____%; or

☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ Assignee of an undivided interest in the entirety of the above-referenced patent/patent application (a complete assignment by one or more of the joint inventors was made). The other parties, including inventor, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ Recipient, via court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is/are attached.

The interest identified in option 1, 2 or 3 above as evidenced by either:

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

or

B. ☒ A chain of title from the inventor(s) of the patent/patent application identified above, to the current assignee;

1. From: Narendra Nath and Mallikarjun Hiremani To: Wayfair Interactive, Inc.

   The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached hereto.

2. From: Wayfair Interactive, Inc. To: Metarail, Inc.

   The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached hereto.

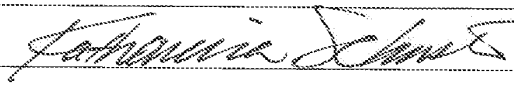
3. From: _____ To: _____

   The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached hereto.

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

☒ Documentary evidence of 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 the original assignment document(s)) must be/have been submitted to the Assignment Division to record the assignment in the records of the USPTO]

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

Signature:		**Date:** February 1, 2019
Name:	Katharina W. Schuster	**Telephone:** 512-637-9220
Title or Registration No.	50000	

ASSIGNMENT

This Assignment is made by **Narendra Nath**, of **Hillsborough, CA**, and **Mallikarjun Hiremani** of **Fremont, CA** ("Assignors").

WHEREAS, Assignors have invented a new and useful invention entitled "**DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE**", for which a application for United States Letters Patent was made on **November 30, 2011**, bearing a application number of **13/308,004**; and

WHEREAS, Assignors believe themselves to be the original inventors of the invention including any and all improvements disclosed in said application ("Invention"); and

WHEREAS, the parties desire to have a recordable instrument assigning the entire right, title and interest in and to said Invention, said application, on any subsequently filed divisional, continuation, continuation-in-part, re-examination, reissue or other application for protection ("Applications"), and any patents, invention registrations or other forms of protection ("Patents") that may be granted for said Invention from any Applications in the United States and throughout the world;

NOW, THEREFORE, in accordance with the obligations to assign the Invention and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignors hereby sell, assign, and transfer to **Wayfare Interactive, Inc.** having a principal place of business at **2310 Homestead Road, #C1328, Los Altos, CA 94024** (hereinafter referred to as "Assignee"), the entire right, title, and interest in and to said Invention, said Applications and any Patents that may be granted for said Invention in the United States and throughout the world, including the right to file foreign applications directly in the name of the Assignee and to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties, or otherwise.

Assignors agree that, upon request and without further compensation, but at no expense to Assignors, they and/or their legal representatives and assigns will do all lawful acts, including the execution of papers and the giving of testimony, that may be necessary or desirable for obtaining, sustaining, reissuing, or enforcing the Patents in the United States and throughout the world for said Invention, and for perfecting, recording, or maintaining the title of Assignee, its successors and assigns, to said Invention, said application, and any Patents granted for said Invention in the United States and throughout the world.

Assignors represent and warrant that they have not granted and will not grant to others any rights inconsistent with the rights granted herein.

Assignors authorize and request the Commissioner for Patents of the United States and of all foreign countries to issue any Patents granted for said Invention, whether on said application or on any subsequently filed divisional, continuation, continuation-in-part, re-examination, reissue or other application, to Assignee, its successors and assigns, as the assignee of the entire interest in said Invention.

IN WITNESS WHEREOF, Assignors have executed this Assignment on the dates provided below.

Name of Sole/First Inventor:	**NARENDRA NATH**
Signature:	Narendra Nath
Date:	5/15/12

Name of Additional Inventor:	**MALLIKARJUN HIREMANI**
Signature:	
Date:	15th May 2012

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "WAYFARE INTERACTIVE, INC.", CHANGING ITS NAME FROM "WAYFARE INTERACTIVE, INC." TO "METARAIL, INC.", FILED IN THIS OFFICE ON THE NINETEENTH DAY OF OCTOBER, A.D. 2017, AT 3:24 O`CLOCK P.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.





4793283 8100
SR# 20176699412

Authentication: 203430138
Date: 10-19-17

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware
Secretary of State
Division of Corporations
Delivered 03:24 PM 10/19/2017
FILED 03:24 PM 10/19/2017
SR 20176699412 - File Number 4793283

CERTIFICATE OF AMENDMENT

TO THE AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

WAYFARE INTERACTIVE, INC.

Naren Nath hereby certifies that:

1. He is the duly elected and acting Chief Executive Officer of Wayfare Interactive, Inc., a corporation organized and existing under the laws of the State of Delaware (the "Corporation")

2. The name of the Corporation is Wayfare Interactive, Inc. The Corporation's original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on February 26, 2010.

3. Pursuant to Section 242 of the General Corporation Law of the State of Delaware, this Certificate of Amendment to the Amended and Restated Certificate of Incorporation amends certain provisions of the Corporation's Amended and Restated Certificate of Incorporation.

4. The terms and provisions of this Certificate of Amendment to the Amended and Restated Certificate of Incorporation have been duly approved by written consent of the required number of shares of outstanding stock of the Corporation pursuant to Subsection 228(a) of the General Corporation Law of Delaware.

5. Article I of the Amended and Restated Certificate of Incorporation of the Corporation is hereby amended to read in its entirety as follows:

"The name of the Corporation is MetaRail, Inc."

(Signature page follows)

IN WITNESS WHEREOF, this Certificate of Amendment to the Amended and Restated Certificate of Incorporation, which amends certain provisions of the Certificate of Incorporation of the Corporation, having been duly adopted in accordance with Section 242 of the General Corporation Law of Delaware, has been duly executed by its Chief Executive Officer this 19th day of October, 2017.

/s/ Naren Nath
Naren Nath
Chief Executive Officer

PTO/AIA/15 (10-17)
Approved for use through 11/30/2020. 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 displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	MEA1100-11
First Named Inventor	Narendra Nath
Title	DEEP LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE
Priority Mail Express® Label No	

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. [ ] **Fee Transmittal Form** (PTO/SB/17 or equivalent)
2. [X] **Applicant asserts small entity status.** See 37 CFR 1.27
3. [ ] **Applicant certifies micro entity status.** See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent.
4. [X] **Specification** [*Total Pages* 35] Both the claims and abstract must start on a new page. *(See MPEP § 608.01(a) for information on the preferred arrangement)*
5. [X] **Drawing(s)** (35 U.S.C. 113) [*Total Sheets* 9]
6. **Inventor's Oath or Declaration** [*Total Pages* 4] *(including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))*
   a. [ ] Newly executed (original or copy)
   b. [X] A copy from a prior application (37 CFR 1.63(d))
7. [X] **Application Data Sheet** ** See note below.* See 37 CFR 1.76 (PTO/AIA/14 or equivalent)
8. **CD-ROM or CD-R** in duplicate, large table, or Computer Program (*Appendix*)
   [ ] Landscape Table on CD
9. **Nucleotide and/or Amino Acid Sequence Submission** (*if applicable, items a. – c. are required*)
   a. [ ] Computer Readable Form (CRF)
   b. [ ] Specification Sequence Listing on:
      i. [ ] CD-ROM or CD-R (2 copies); or
      ii. [ ] Paper
   c. [ ] Statements verifying identity of above copies

ADDRESS TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

ACCOMPANYING APPLICATION PAPERS

10. [X] **Assignment Papers** (cover sheet & document(s)) Name of Assignee MetaRail, Inc.
11. [X] **37 CFR 3.73(c) Statement** (*when there is an assignee*) [X] **Power of Attorney**
12. [ ] **English Translation Document** (*if applicable*)
13. [X] **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    [X] Copies of citations attached
14. [ ] **Preliminary Amendment**
15. [ ] **Return Receipt Postcard** (*MPEP § 503*) (*Should be specifically itemized*)
16. [ ] **Certified Copy of Priority Document(s)** (*if foreign priority is claimed*)
17. [ ] **Nonpublication Request** Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
18. [ ] **Other:**

*Note: (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS

[X] The address associated with Customer Number: 44654 OR [ ] Correspondence address below

Name					
Address					
City		State		Zip Code	
Country		Telephone		Email	

Signature		Date	February 1, 2019
Name (Print/Type)	Katharina W. Schuster	Registration No. (Attorney/Agent)	50000

This collection of information is required by 37 CFR 1.53(b). 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 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.

Electronic Acknowledgement Receipt

EFS ID:	35036778
Application Number:	16265615
International Application Number:	
Confirmation Number:	7032
Title of Invention:	DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE
First Named Inventor/Applicant Name:	Narendra Nath
Customer Number:	44654
Filer:	Katharina W. Schuster/Margarita Marquez
Filer Authorized By:	Katharina W. Schuster
Attorney Docket Number:	META1100-11
Receipt Date:	01-FEB-2019
Filing Date:	
Time Stamp:	17:14:49
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		META1100-11_Application.pdf	158992 96fb7fcdbbca584fdfa80558910a68867fae7974	yes	35

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Specification	1	33
	Claims	34	34
	Abstract	35	35

Warnings:					
Information:					
2	Drawings-only black and white line drawings	META1100-11_Drawings.pdf	436152 b2370e0de943717a05dec5ac469ebd44f06bcb62	no	9
Warnings:					
Information:					
3	Oath or Declaration filed	WAYF1100-11_Executed_Declarations.pdf	378369 ab8499d8dd44b1f8f00eaf42b7ba7d2710a75791	no	4
Warnings:					
Information:					
4		META1100-11_IDS_02-01-2019.pdf	501984 6553abf074d3f2a25dadc1c7418e5073d9c469a1	yes	7

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Transmittal Letter	1	2
	Information Disclosure Statement (IDS) Form (SB08)	3	7

Warnings:					
Information:					
5	Foreign Reference	WAYF1100-2_Ref_B1_A.pdf	1417214 aa0ebf0845533f8298d0586c9380670479c988eb	no	30
Warnings:					
Information:					

6	Foreign Reference	WAYF1100-2_Ref_B2.pdf	960529 ff35e48f70a3ca7f788bea779847fc24c45d33dd	no	24
Warnings:					
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7	Non Patent Literature	WAYF1100-2_Ref_C1.pdf	12026179 fb914dbd22fa7c58ce1b4e17e94a8f0b56a30f3c	no	14
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Information:					
8	Non Patent Literature	WAYF1100-2_Ref_C2.pdf	11014088 41c59d29609e0884d86105a6486a280e529bd7d6	no	13
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9	Non Patent Literature	WAYF1100-2_Ref_C3.pdf	19795778 24dbee24cb8bcbcf03ba6c0e9108bb0cf6fa4874	no	22
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10	Non Patent Literature	WAYF1100-2_Ref_C4.pdf	11450925 9e08e197b7ad2bc0371bc8fa0f8af301fd96876d	no	13
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12	Non Patent Literature	WAYF1100-2_Ref_C6.pdf	24995604 cff48677577d30ba9a8b0d5f040facfdd8031562	no	22
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19	Non Patent Literature	META1100-2_Ref_C13.pdf	1922156 61a9589f4ea451c3d647781bac372a6d88c42c58	no	34
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20	Non Patent Literature	META1100-2_Ref_C14.pdf	376396 ec7d4d63ffbecef6fa1738fcdd9316e3796d4fb0	no	10
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21	Non Patent Literature	META1100-2_Ref_C15.pdf	625789 3b106037bd5c18b4ace1aa78178d235417f4c972	no	11
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Information:					
22		META1100-11_POA.pdf	543123 d34eb6b4c0dd4ff73bc349d5a25fe7c3614159d8	yes	8

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Assignee showing of ownership per 37 CFR 3.73	1	7
	Power of Attorney	8	8

Warnings:					
Information:					
23	Application Data Sheet	META1100-11_ADS_02-01-2019.pdf	1543131 8d8a55b917ebd97e03d52706b1a5434b51166721	no	8
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
24	Transmittal of New Application	META1100-11_Transmittal.pdf	431748 97fc71603731073e3756cf2126f6040a7ebdcedf	no	1
Warnings:					
Information:					
			Total Files Size (in bytes):	109943931	

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.

DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation of, and claims a benefit of priority under 35 U.S.C. § 120 to U.S. Patent Application No. 15/463,790, filed March 20, 2017, entitled "DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE," which is a continuation of, and claims a benefit of priority under 35 U.S.C. § 120 to U.S. Patent Application No. 13/308,004, filed November 30, 2011, now U.S. Patent No. 9,633,378, entitled "DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE," which is a conversion of, and claims a benefit of priority from U.S. Provisional Application No. 61/420,193, filed December 6, 2010, entitled "SYSTEM, METHOD, DATABASE AND SOFTWARE PROGRAM FOR AUTOMATING THE SPIDERING, ARCHIVING AND PROGRAMMATIC USE OF DYNAMIC DATA from arbitrary web sites, MOBILE APPS AND OTHER FORMS OF ONLINE MEDIA," all of which are fully incorporated herein by reference for all purposes.

TECHNICAL FIELD

[0002] This disclosure relates generally to the field of online advertising and E-commerce. More particularly, embodiments disclosed herein relate to deep-linked advertising and E-commerce. Even more particularly, embodiments disclosed herein relate to a deep-linking system, method, database, and computer program product for online ads and E-commerce widgets, the online ads and widgets being automatically generated utilizing dynamic data from arbitrary web sites, mobile apps and other forms of online media and being able to automatically transfer their dynamic data to other arbitrary web sites, mobile apps and other forms of online media, thereby pre-populating fields on the receiving online media, or enabling ad clicks to land directly on a results page or checkout page rather than a home page, substantially increasing conversion rates and performance. Note that the definition of this dynamic data includes data explicitly typed

in by the user, as well as data that may be implicitly inferred from the page that the user is on, and the page location s/he clicks on or hovers over. Note further that dynamic data may be obtained at the initiative of the advertising system via a "pull" model, or at the initiative of the sites and applications being linked to via a "push" model.

BACKGROUND OF THE RELATED ART

[0003] The advertising industry is seeing substantial developments and transformations around the world. In particular, a greater percentage of overall worldwide marketing spending is shifting from traditional offline media such as print, television, billboards and venues to online media such as the Internet, mobile apps, Internet access networks, Internet television, etc. This is happening for two primary reasons – firstly, a greater percentage of consumer "eyeballs" are shifting from offline to online media. Secondly, the online media affords much greater ability to measure and manage advertising programs and placements, such that advertisers are able to get greater return on investment, and engage in more performance-based marketing practices. Digital advertising, as the various forms of online or interactive advertising are commonly described, is thus becoming an increasing percentage of the overall advertising market. With this trend, the requirement to provide better and better targeting, relevance and harmony with content continues to get stronger in order to provide greater value to end-users, better return-on-investment for advertisers, and better site loyalty and monetization for publishers.

[0004] Within Digital Advertising, the two largest categories currently are Display Advertising and Search Advertising. Display advertising refers to any type of banner ads, audio ads, video ads, animation ads, etc. where the ad unit (a piece or an item of advertising) is presented on the publisher media based on some filtering conditions specified by the advertiser or the publisher. These filtering conditions might include current information, such as the location of the user, the date and time of the ad serving, as well as historical information, such as the sites the user has been on prior to coming to this publisher's media, the user's past click and purchase behavior on this and other media, etc. Advertisers and publishers are finding that the better the targeting of an ad, the better its performance for all parties.

[0005] Search advertising refers to a major innovation brought about by Google™, Bing™ and other "horizontal" search engines. These horizontal search engines came up with new and better ways to sort and categorize the entire Internet by keywords, or groups of words typed in by users to find information they were interested in. The search engines were so effective for users that they quickly became the dominant entry points for users looking to get on the Internet. Google and other search sites then introduced a major innovation in the world of advertising, and that was to use the keywords typed in by users searching for information to select the ads to present. Subsequently, they also added the ability to serve up ads filtered out by the static content of any web site, not just Google or Bing itself. Furthermore, they changed ad formats from predominantly banner based to predominantly text based, as a further message to users about relevance and contextualization, rather than intrusiveness of display. By enhancing the contextualization and presentation of ads, the search engines were able to greatly shift advertising spend from offline and display ads to search ads.

[0006] Advances in information technology, and business requirements for continually better performance continue to bring changes and challenges to online advertising. Consequently, there is always room for improvement and innovation.

SUMMARY OF THE DISCLOSURE

[0007] A recent advancement in Digital Advertising has been "deep-linked" or "parameter-based" advertising. This form of advertising today applies to search and E-commerce sites where the user is searching for a product or service, like a travel site, and types in search parameters, such as where s/he is traveling from, where to, travel dates, how many people in the party, class of travel, etc. These search parameters are then passed along with each ad click to the appropriate advertiser. The advertiser then uses the parameters passed along to: (a) hyper-target the placement of ads and customize the copy of ads presented on targeted web pages, and (b) automatically activate searches from their home page, thereby landing the web user "deep" into their booking process rather than on their home page as is customary with other forms of ad clicks.

[0008] Targeting and customizing the ad copy dynamically results in much greater click-through rates, and landing the ad click deep in the booking process results in much greater conversion rates. As a result, deep-linked ads have much higher overall return-on-investment for advertisers, translating to much higher monetization rates for publishers.

[0009] To make deep-linked ads work, dynamic data from the publisher's site or app needs to be input into the appropriate locations on the advertiser's site or app, enabling it to "fast-forward" the user click deep into its conversion funnel. In one embodiment of this invention, to make these ads work fields or variables on the publisher site or mobile app need to be mapped and integrated with corresponding fields or variables on the advertiser site or mobile apps, and the ad click sent to the appropriate dynamic page URL as opposed to the home page URL. So far in the industry, these deep-linked ad connections have been manually created by developing programmatic integrations between variables and fields on the publisher web site and the advertiser web site, created by manual code. This is so because each web site uses its own field descriptors and variable names, and the only way to create deep-linked ads has been to manually obtain the names of the respective variables from both publishers and advertisers and then integrate them to each other through manual programming.

[0010] This manual programming is a time and resource intensive activity that multiplies as the size of the network grows, limiting the size, scale and market adoption for deep-linked ads. Furthermore, this manual model requires prior knowledge of ads to be placed on a given publisher's site or app in order for the deep-linked integrations to be pre-built. However, this then precludes many of the traditional efficiencies in the Display and Search ad markets, such as an open real-time bidding model for ad inventory, flexibility of placing ads and pulling them down on demand, dynamic targeting, etc. There is hence an acute need for an automated way to generate deep-linked ads, as that will spur rapid and much wider adoption of these kinds of ads by increasing numbers of participating web sites and by bringing new market efficiencies to both publishers and advertisers and thereby produce greater economic gains for a larger cross-section of publisher and advertiser sites. These benefits accrue whether the automated ad generation system is operated by human beings at the network acting upon requests

made by publishers or advertisers, as well as by self-help systems that can be directly used by human operators at publishers and advertisers.

[0011] Embodiments disclosed herein provide various solutions for automating the spidering or otherwise data gathering, archiving, inferring, linking and programmatic use of dynamic data and the programming containers or variables for this dynamic data from arbitrary web sites (also referred to herein as “sites”), mobile apps and other forms of online media to other arbitrary web sites, mobile apps and other forms of online media. Note that this dynamic data may comprise data explicitly typed in by the user, as well as data implicitly inferred from the page that the user is on, and/or the page location s/he clicks on or hovers over. More specifically, some embodiments disclosed herein may enable the automated generation of deep-linked ads between any arbitrary web site, mobile app, private Internet network, Internet TV channel, and other forms of online media and any other such arbitrary web site, mobile app, private Internet network, Internet TV channel, and other forms of online media. Some embodiments may additionally enable the automatically generated deep-linked ads to be inserted into any ad server, such that the deep-linked ads can be served out from there in real-time. Some embodiments may also enable deep-linked ads to be created in real-time by fetching non deep-linked Display or Search ads from real-time ad exchanges or other sources, appending deep-linking codes into the fetched ads, and then placing the deep-linked versions of these ads back out onto real-time ad exchanges or other ad servers. Some embodiments may enable the deep-linked ads to land the user directly onto the results or checkout page of the advertising site or application, other embodiments may enable the pre-population of dynamic data into the forms of the advertising site or application but not activating the actual search action, in the event that all fields cannot be pre-populated because of incomplete dynamic data being passed from the publishing site. Deep-linked ads in this embodiment reduce data entry required of users by pre-populating what is already available from the publishing site, thereby increasing conversion rates.

[0012] In some embodiments, a method of automated generation of deep-linked ads may comprise some or all of the following:

[0013] – Create a list of all the verticals and all the geographies in which an ad company wishes to operate.

[0014] - Generate lists of web sites belonging in the above verticals and geographies by doing a search on Google, Bing and other search and directory resources.

[0015] – Run asynchronous spiders over the Internet, or otherwise gather information pushed directly from sites and web pages, to verify the verticals and product categories to which sites and web pages belong and capture and continually update the names of all the site categories and variables or field identifiers or containers of user input data on all sites and apps reached based on the lists.

[0016] – Normalize all the variables and identifiers to a meta-schema constructed for each vertical and type of site or app, whereby all variables and identifiers are mapped to their standard normalized names.

[0017] – Create mini-integrations or handshakes between each gathered variable and the corresponding normalized variable by employing a series of mapping heuristics that can be fine-tuned over time. In one embodiment, this is realized via a universal variable map. For efficiency purposes, many or all mini-integrations can also be performed directly between publisher and advertiser of ad, rather than each to the normalized variables as an interim step. The mini-integrations can be created at any stage – during the time the variables are first gathered, when an ad placement is created, just as an ad is about to get served in real-time, or any other time in the process.

[0018] – Spidering or otherwise gathering the dynamic landing page URL to which to send the ad click, as opposed to a static home page or other landing page URL.

[0019] – Run processes to continually validate, update and fine-tune the data gathering, spidering and variable mapping process. These processes may be adaptive and/or involve human oversight.

[0020] – Either as an asynchronous batch process, or as a synchronous process when requested by a publisher or advertiser wanting to place deep-linked ads, generate a deep link ad with the appropriate integrations between publisher variables and advertiser variables already built in.

[0021] - Determine the positioning of each deep-linked ad placement relative to other deep-linked or non-deep-linked ad placements based on the bid prices of the various ads, click-through rates of the various ads, CPM rates of the various ads, eCPM rates of the various ads, any combination of the above, or any other bid or performance characteristics.

[0022] In one embodiment, the user input field on a publisher site might comprise a composite field, such as a multi-keyword text string. In this embodiment, the composite text string can be parsed into its component values that can then be passed into the corresponding normalized variables through a real-time parsing module. These normalized variables can then be linked to explicit variables on the advertising site, thereby passing all requisite dynamic data from a composite multi-keyword text field on the publisher site into the right multiple fields in the right locations on the advertiser site.

[0023] In another embodiment, the user might not fill out any field on the publisher site if this is a browse-based site. In this situation, the user's click on any page, or a hover over a location on a page, can be used to define what item or link or attribute the user clicked on or hovered over, and on which page of the publisher site, using that information to set the inferred values into the corresponding normalized variables in the universal variable map in real-time. These normalized variables can then be linked to explicit variables on the advertising site, thereby passing all requisite dynamic data from the page location clicked on or hovered over into the right locations on the advertiser site.

[0024] In some embodiments, through the universal variable map, forms and fields from one site can be associated with one or more relevant forms and fields from one or more different sites, even if the sites themselves may be in different verticals. Leveraging this unique and comprehensive universal variable map, embodiments can take a web site visitor from an initial stop (e.g., a home page of a first web site) directly and in real-time through a specific deep-link ad to a landing spot on another site (e.g., a checkout page of a second web site), or to a home page on another site with as much data pre-populated as available based on the user's input in the context of the particular E-commerce transaction.

[0025] In one embodiment, deep-linked ads can be daisy-chained, whereby upon receiving an ad click from a publisher site, the advertiser site can in turn become the next publisher site, sending a deep-linked ad click to its own advertiser site, with the sequence proliferating indefinitely. There is hence an indefinite number of cascading deep-linked ads that can be set up, each ad having the ability to leverage all of the user input – explicitly typed in, or implicitly inferred from the user's clicks or hovers – up to that point.

[0026] Some embodiments disclosed herein may provide a computer program product having at least one non-transitory computer readable medium storing instructions translatable by at least one processor to implement the direct deep-linking methodology disclosed herein, including the automated generation of deep-linked ads. Some embodiments disclosed herein may provide a system comprising at least one processor and at least one non-transitory computer readable medium storing instructions translatable by the at least one processor to implement the deep-linking methodology disclosed herein, including the automated generation of deep-linked ads.

[0027] With embodiments disclosed herein, publisher sites, apps and media can leverage deep-linked ads with the same ease as Display ads and Search ads, dramatically enhancing their revenue and monetization. At the same time, advertisers can place deep-linked ads on a full range of online media, dramatically enhancing their conversion rates and return on investment.

[0028] These, and other, aspects of the disclosure will be better appreciated and understood when considered in conjunction with the following description and the accompanying drawings. It should be understood, however, that the following description, while indicating various embodiments of the disclosure and numerous specific details thereof, is given by way of illustration and not of limitation. Many substitutions, modifications, additions and/or rearrangements may be made within the scope of the disclosure without departing from the spirit thereof, and the disclosure includes all such substitutions, modifications, additions and/or rearrangements.

BRIEF DESCRIPTION OF THE DRAWINGS

[0029] The drawings accompanying and forming part of this specification are included to depict certain aspects of the disclosure. It should be noted that the features illustrated in the drawings are not necessarily drawn to scale. A more complete understanding of the disclosure and the advantages thereof may be acquired by referring to the following description, taken in conjunction with the accompanying drawings in which like reference numbers indicate like features and wherein:

[0030] FIGURE 1 depicts a diagrammatic representation of an example network architecture in which embodiments disclosed herein may be implemented;

[0031] FIGURE 2 depicts a diagrammatic representation of an example system architecture according to some embodiments disclosed herein;

[0032] FIGURE 3 depicts a flow diagram representing an example embodiment of a method of creating a universal variable map for deep-linking;

[0033] FIGURE 4 depicts a diagrammatic representation of an example process flow and modules implementing an embodiment of a method disclosed herein;

[0034] FIGURE 5 depicts a diagrammatic representation of an example embodiment utilizing keyword density of meta tags for selection of an appropriate schema in the automated generation of deep-linked ads, and using a set of smart heuristics to match variables on one site or mobile app to those on another site or mobile app;

[0035] FIGURE 6 depicts a diagrammatic representation of an example embodiment for processing product information gleaned from web sites to map to the universal schema and map all related relationships;

[0036] FIGURE 7 depicts a diagrammatic representation of an example system architecture for decomposing a site into its component product and package offerings according to some embodiments disclosed herein;

[0037] FIGURE 8 depicts a diagrammatic representation of modules for searching a vertical or product and mapping variables, the modules accessing website schemas and product schemas;

[0038] FIGURE 9 depicts a diagrammatic representation of an example correspondence between a physical product, its product search form, its pertinent search variables, and the actual source code illustrating an example implementation;

[0039] FIGURE 10 depicts a diagrammatic representation of example linkages between a physical product, and the search fields on three different sites designed to search for that physical product, illustrating the logic behind the variable mapping exercise;

[0040] FIGURE 11A depicts a diagrammatic representation of example linkages built in an automated fashion between two sites, where both sites have multiple search fields, and an illustration of an example generation of automated code for a deep-linking ad between the two sites;

[0041] FIGURE 11B depicts a diagrammatic representation of example linkages built in an automated fashion between two sites, where one site has multiple search fields and the other site has a composite text field, and an illustration of an example generation of automated code for a deep-linking ad between the two sites;

[0042] FIGURE 12 depicts a diagrammatic representation of an example architecture for decomposing a web site or an app into its components, and eliciting, organizing and mapping its variables in the universal variable database;

[0043] FIGURE 13 depicts a diagrammatic representation of an example flow diagram for identifying, parsing, detecting, organizing and archiving site and applications and their product attributes or variables in the universal variable database;

[0044] FIGURE 14 depicts a diagrammatic representation of an example architecture for serving deep-linked ads via associations between an ad server, ad generator and universal variable map;

[0045] FIGURE 15 depicts a diagrammatic representation of a web page/site that does not require any typed-in user input to operate, but rather is operated by clicking on or hovering over menu selections; and

[0046] FIGURE 16 depicts a diagrammatic representation of an example flow diagram for decomposing a composite text string into its component values and mapping the values onto multiple product attributes or variables.

DETAILED DESCRIPTION

[0047] The disclosure and various features and advantageous details thereof are explained more fully with reference to the exemplary, and therefore non-limiting, embodiments illustrated in the accompanying drawings and detailed in the following description. It should be understood, however, that the detailed description and the specific examples, while indicating the preferred embodiments, are given by way of illustration only and not by way of limitation. Descriptions of known programming techniques, computer software, hardware, operating platforms and protocols may be omitted so as not to unnecessarily obscure the disclosure in detail. Various substitutions, modifications, additions and/or rearrangements within the spirit and/or scope of the underlying inventive concept will become apparent to those skilled in the art from this disclosure.

[0048] FIGURE 1 depicts a diagrammatic representation of a high-level network architecture 100 in which embodiments disclosed herein may be implemented. In the example of FIGURE 1, user 101 at user device 110 may direct a browser application running on device 110 to a particular Internet Protocol (IP) address of publisher site 140 on Internet 120. Depending upon user input, publisher site 140 may present a product or service search page containing various links to user 101. This product or service search page may contain one or more links to advertiser 150. Publisher 140 and Advertiser 150 may be clients of ad network 160. If user 101 views or clicks on an ad published by publisher 140, advertiser 150 may pay publisher for that view or click.

[0049] FIGURE 2 depicts a diagrammatic representation of example system architecture 200 according to some embodiments disclosed herein. In the above example, ad network

160 may include ad server 260. Ads for advertiser 150 may be prepared and/or served by ad server 260 to publisher 140. In one embodiment, platform or system 210 (also referred to herein as an Ad system) may reside on or alongside Ad server 260 and operate to automatically generate deep-linked ads for advertiser 150 and published by publisher 140 on web sites. In one embodiment, Ad system 210 may be implemented on a single server computer or on a cluster/farm of servers, which may include any combination of separate server computers and may provide automatically generated deep-link ads to ad server 260. An example of a suitable server computer may include a central processing unit (CPU), read-only memory (ROM), random access memory (RAM), hard drive (HD) or non-volatile memory, and input/output (I/O) device(s). An I/O device may be a keyboard, monitor, printer, electronic pointing device (e.g., mouse, trackball, etc.), or the like.

[0050] Embodiments may include a computer program product implementing a deep-linking method for online ads, the deep-linked ads being automatically generated on Ad system 210. As one skilled in the art can appreciate, a computer program product implementing the method disclosed herein may comprise one or more non-transitory computer readable storage media storing computer instructions translatable by one or more processors in Ad system 210. Examples of computer readable media may include, but are not limited to, volatile and non-volatile computer memories and storage devices such as ROM, RAM, HD, direct access storage device arrays, magnetic tapes, floppy diskettes, optical storage devices, etc.

[0051] FIGURE 3 depicts a flow diagram representing an example embodiment of a deep-linking method disclosed herein. In this example, method 300 may comprise creating and maintaining a universal map of variables and identifiers from sites (step 301), automatically generating deep-linked ads from the variables and identifiers and other data in the universal variable map (step 303), and presenting deep-linked ads to consumers in real time (step 305). These steps will be further described below.

[0052] FIGURE 4 depicts a flow diagram representing an example embodiment of a method for creating and maintaining a universal variable map. In this example, method 400 may comprise defining a scope of a programmatic search (step 401). For example, an operator of Ad system 210 may define verticals and categories of sites to be searched

on the Internet. This list can be a typed-in list, flat file list, excel file list, or any form of entry suitable for input to one or more modules for data gathering or spidering or scraping. An example of list entries for verticals can be Travel, Real Estate, Cars, Jobs, etc. An example of list entries for geographies can be zip code, phone area code, geo-coordinates, or names like California, Texas, China, India, South America, etc.

[0053] In some embodiments, sites might submit or "push" their variable data, or actual product or services data along with associated data schemas from their private databases to the ad system. In these embodiments, the ad system can map explicit variables to other linked sites via the universal variable map, or can infer variable names from data and schemas provided by participating sites, and map them to other linked sites via the universal variable map, thereby providing deep-linking benefits even if one of the linked sites submits its data to the ad system directly, rather than via spidering over the Internet.

[0054] In some embodiments, method 400 may further comprise performing a programmatic search for the verticals and geographies defined in the list via various horizontal search engines (step 403). Each site on the list may then receive from the site, or be crawled to see if a vertical or horizontal search box (form) is found. If no search box is found, then all the site's page headers or site map may be extracted and saved in Ad system 210. The page headers or site map may be used to identify values for normalized variables should a user click on or hover over an identified location on the appropriate pages. If search boxes can be found, as illustrated in FIGURE 5, one or more asynchronous spiders/scrapers or data gathering interfaces 510 may be utilized to interact with a plurality of web sites and applications 520 to obtain the desired information about lists of qualifying web sites, and the variables or identifiers on them. Example search engines may include Google, Bing, and any other horizontal search engines desired. In some embodiments, spiders/scrapers or data gathering interfaces 510 may comprise software modules programmed to utilize a suite of heuristics to begin identifying sites and fields around verticals 501 and geographies 503 defined in the list(s). For instance, if a vertical name specified is Travel, a spidering module may search for "Travel sites," "Travel apps," "Traveling sites," "Traveling apps," "Travel web sites," "Travel Web Sites," and any combination or variation of the above it decides to use. As an example, the

spidering module may look up the first 100, 200, 1000, or however many web sites it wants to do the keyword searches for.

[0055] In some embodiments, spidering module or data gathering module 510 may then scan all the search engine optimization (SEO) tags specified on each of web sites and applications 520 to categorize what kind of site it is. As an example, SEO tags may specify a site as a Travel agency site, a Travel meta-search site, a Travel comparison site, a Travel content and blog site, etc.

[0056] In some embodiments, spidering module or data gathering module 510 may look up the Form section of each relevant web page, parse out the names of all the variables or input field identifiers (step 405), and archive them in a database which can be considered a universal variable map to all relevant forms and fields across the web sites crawled by the spidering module or data gathering module thus far (step 407). If the Form found by spidering module or data gathering module 510 consists of a single text string field, the spidering module or data gathering module may tag the field as such in the universal variable map, thereby triggering a real-time parser to be executed to parse out the text string, decompose it into values for each of the specified variable fields for the appropriate Vertical schema, and set the right values into the right variables based on the vertical and product category the form belongs to. For example, if the text string typed in by a user into a text string field is “Flights from San Francisco to London”, the real-time parser may decompose the text string to mean that Vertical = Travel/Flights, Origin = San Francisco, Destination = London and set the appropriate variables accordingly as the ad is being served. In contrast, if the form found by spidering module or data gathering module 510 includes multiple fields, the spidering module or data gathering module collects the names of variables and identifiers used for input fields on web sites. In other words, in the context of embodiments disclosed herein, spidering or crawling web sites, or direct data gathering from data provided by web sites, can be utilized to crawl and parse names of programming variables as opposed to static content on pages. These names are essentially the place holders for dynamic data that a user types in on a site, or clicks on or hovers over on a site, and can be passed between publisher and advertiser web sites.

[0057] For instance, following the above example, the spidering module can go to a Travel web site, crawl the page, parse the Form section of the page and determine, for example, that the "from" field for a flight is called "Orig" and the "to" field is called "Dest", that the date fields are called "DepDate" and "ArrDate", that the time fields are called "DepTime" and "ArrTime", etc. The names of all such variables are then archived in a universal variable map, one example of which is implemented as variable database 530 shown in FIGURE 5. Variable database 530 can be suitably configured for storing normalized programming variables and data associated therewith.

[0058] A non-limiting example of one embodiment of a universal variable map is illustrated below in Table 1.

Web Sites	xxx.com	yyy.net	zzz.org	...	Normalized Variables
Variable 1	Orig	Depart_City	From	...	from
Variable 2	Dest	Arrival_City	To	...	to
Variable 3	...	...	...	...	...
...	...	...	...	...	...

[0059] In addition to spidering or data gathering the names of variables as identified above, the spidering module or data gathering module can also note the landing page URL of the dynamic results page by looking at the "Action" meta-tag of the form being scanned. This URL can then be used to land the ad click deep into the results or checkout page, rather than on a static home page or other landing page.

[0060] In some cases, a page may be coded up in Ajax code. In one embodiment, the method may further comprise running a programmatic query on the page coded in Ajax, receiving a dummy response page, and performing the parsing and scanning on the response page to obtain all the variable names. One embodiment of the spidering module or data gathering module described above may be further configured to perform these steps. As illustrated by this embodiment, the spidering module or data gathering module disclosed herein can gather and parse variable names from all kinds of pages available.

[0061] Some web sites may not have any form, search box, variable and/or parameter associated with them. Such web sites may contain index or browse-based navigation. Examples of such web sites may include Sears.com or BestBuy.com. In some embodiments, the spidering module or data gathering module 510 may be programmed to spider these web sites. More specifically, the spidering module or data gathering module may spider the site maps of these sites, or the page headers and navigation field tags and thereby have the intelligence to detect whatever implicit parameters are relevant from the location of a user click or user hovering exercise, such as location of the user, time and date of parsing, item clicked on, category clicked on, etc. For instance, if the user is on the Laptop page of the Amazon.com site, the page header and navigation field tags indicate that this is a Laptop purchase page. This defines the vertical (Electronics) and product (Laptop) of the site. Furthermore, the page has several attribute selections (Brand, Budget, Screen Size, etc.) and values on the navigation of the page. Each attribute represents a variable in the universal variable map, and each selection the possible values for that variable. Each time the user clicks on a navigation option, or hovers over it, the appropriate variable can be set with the appropriate value in the ad click.

[0062] FIGURE 6 depicts a functional diagram showing example system components implementing an embodiment disclosed herein. In this example, Ad system 600 may implement one embodiment of Ad system 210 and may comprise advertisement platform 610 and spidering engine or data gathering module 510 or crawl engine 620.

[0063] In one embodiment, crawl engine 620 may use search engine 611 to find sites that belong to the vertical being spidered, and build a graph database 690 of verticals and sub-verticals to an arbitrary level of granularity using graph builder 629. This graph database may be used to track associations between forms and fields on one site or app and another site of app, whether in the same vertical or in different verticals. When sites and applications are linked in graph database 690 in the same vertical, they enable powerful comparison and complementary product merchandising functions, and when sites and applications are linked from different verticals they enable powerful cross-marketing functions, even if they have no pre-existing relationships.

[0064] Once a site or app is categorized into the appropriate vertical, sub-vertical and product category using graph database 690, crawl engine 620 may spider all the variables in the site or app, and save them in universal variable map or variable database 530, with an index 615 using the index builder 625. The universal variable map may then be completed (step 301) by mapping the variables saved and indexed in variable database 530 to their normalized versions using a set of adaptive heuristics executed by the heuristics engine 540 or mapper 613. Advertisement platform 610 may be configured for the automatic generation of deep-linked ads (step 303) and the presentation of the deep-linked ads (step 305) by accessing variable mapping information and URL landing information in variable database 530.

[0065] FIGURE 7 depicts a diagrammatic representation of an example embodiment utilizing keyword density of meta tags for selection of an appropriate vertical schema in the automated generation of deep-linked ads. All sites are categorized by verticals or geographies specified to the Ad system. As illustrated in FIGURE 7, each vertical may comprise one or more sub-verticals, products 740 and/or one or more packages 750. Crawler or data gathering module 510 or Vertical/product inference engine 710 may be configured to cross-reference or otherwise associate a given site 720 with an appropriate vertical 730 by checking its meta tags 721, 723, 725. As an example, the meta tags for the site kayak.com may be as follows:

[0066] <title>Cheap Flights, Hotels, Airline Tickets, Cheap Tickets, Cheap Travel Deals - KAYAK - Compare Hundreds of Travel Sites At Once</title> <meta name="description" content="Find and book cheap flights, hotels, vacations and rental cars with Kayak.com. Hotel, flight and travel deals. Search hundreds of travel sites at once."> <meta name="keywords" content="cheap airline tickets,airline tickets,airfare deals,cheap airfares,airfare,plane ticket prices,major airlines,discount airlines,online travel agencies,discount car rental,domestic airline tickets,international airline tickets,air travel,travel search,travel search engine,kayak"/>

[0067] In this example, it is clear that the keyword densities for Travel and Flights (Tickets) are the highest, identifying this is a Travel/Flights page and form.

[0068] Data flow 700 illustrates that, in some embodiments, meta tag(s) from web site(s) may be utilized by engine 710 in determining which web site belongs to which vertical or product category. An example *v*ariable schema for a Travel vertical/cluster of sites may be as follows:

[0069] Product Type
Flights | Hotel | Cars | Cruise | Vacation | Activities | Flights+Hotels | Flights+Cars | Hotels+Cars | Flights+Hotels+Cars

If Product Type = Flights

Itinerary Type	Round Trip | One Way | Multiple Destinations
From	Text
To	Text
DepartingDate	Date
DepartingTime	Time
ArrivingDate	Date
ArrivingTime	Time
Flex Dates	Yes | No
# Adults	Number
# Kids	Number
# Seniors	Number
Nonstop	Yes | No

[0070] Additional example sites and their meta tags are provided below. Following the above example schema, notice that travel sites and non-travel sites have different descriptors. Embodiments of an engine can therefore readily determine what web site is in-cluster and what web site is out-of cluster for the vertical Travel.

[0071] KAYAK.COM

[0072] <title>Cheap Flights, Hotels, Airline Tickets, Cheap Tickets, Cheap Travel Deals - KAYAK - Compare Hundreds of Travel Sites At Once</title> <meta name="description" content="Find and book cheap flights, hotels, vacations and rental cars with Kayak.com. Hotel, flight and travel deals. Search hundreds of travel sites at once."> <meta name="keywords" content="cheap airline tickets,airline tickets,airfare deals,cheap

airfares,airfare,plane ticket prices,major airlines,discount airlines,online travel agencies,discount car rental,domestic airline tickets,international airline tickets,air travel,travel search,travel search engine,kayak"/>

[0073] BARNES and NOBLE

[0074] <title>Barnes & Noble - Books, Textbooks, eBooks, Toys, Games & More</title> <meta name="description" content="New! Lower Prices on Millions of Books, DVDs, Music, Toys & Games and More. Shop for eBooks, NOOK, and textbooks. FREE Shipping on $25 orders!"/> <meta name="keywords" content="Holly Rose Tote Bag,Barefoot Contessa Cookbook,Ina Garten"/> <meta name="date" content="12/2/2010"/> <link rel="canonical" href="http://www.barnesandnoble.com/"/>

[0075] TRIPMAMA

[0076] <title> Travel Deals, Compare Cheap Flights, Compare Cheap Airfares, Airline Tickets – TripMama </title> <meta name="resource-type" content="document"/> <meta http-equiv="pragma" content="no-cache"/> <meta id="MetaDescription" name="DESCRIPTION" content="Search and compare cheap flights and airline tickets on TripMama. Compare cheap airfares to popular destinations using three or more travel web sites"/> <meta id="MetaKeywords" name="KEYWORDS" content="compare airfare, compare cheap flights, travel deals, compare flights, cheap airfares"/>

[0077] ORBITZ

[0078] <title>Orbitz Travel: Airline Tickets, Cheap Hotels, Car Rentals, Vacations & Cruises</title> <meta name="description" content="Book cheap airline tickets, hotel reservations, car rentals, vacations and travel deals on Orbitz. Get our cheapest airfare and hotel deals or a cash refund with Orbitz Price Assurance."/> <meta name="keywords" content="cheap airline tickets, cheap plane tickets, airline tickets, plane tickets, cheap tickets, cheap airfare, cheap hotels, cheap vacations, hotel reservations, car rentals, travel deals, flight deals, hotel deals, air travel, air tickets, air fares, airfare, travel"/>

[0079] KOHLS

[0080] <title>Kohl's</title> <meta name="description" content="Expect Great Things when you shop Kohl's for apparel, shoes, accessories, home products and more! Find top brands at great prices at Kohl?s today!"/> <meta name="keywords" content="kohles, khols, khol, khol's, kholes, kohls', koles, kolhs, kohl stores, kohl store, kohl com, kohl department, kohl dept store, kohl department store, kohl department stores, khols department stores, khols stores, khols store, khol's store, khol store,"/>

[0081] Again, these meta tags can be used to determine to which vertical or category each web site belongs. In this way, once a site's category is defined, the variable mapping exercise can be simplified to match which variables or identifiers match up to which normalized variable, rather than a completely open-ended exercise of trying to map arbitrary strings of variable names to each other.

[0082] FIGURE 8 depicts a diagrammatic representation of an example embodiment of flow 800 for processing product information gleaned from web sites and mapping variables and fields for each of the products into normalized variables in the universal variable map. Flow 800 may utilize modules for searching a vertical or product and mapping variables, the modules accessing website schemas and product schemas. In this example, product page 801 embodies site 720 being spidered or obtained data for. Product normalizer 803 embodies crawl engine 620, persistence module 621, index builder 625 and graph builder 629. Product attribute library 807 embodies graph database 690. Website metadata 805 embodies variable database 530. Flow 800 will be further described below with reference to FIGURES 9 and 10.

[0083] FIGURE 9 exemplifies the relationship between a product 901 and a form 903 found by spidering module or data gathering module 510 on a site's product page or product search page (step 403 or step 801). Spidering module or data gathering module 510 may parse or scan form source code 913 to extract or otherwise obtain form data, including names of programming variables and identifiers associated with product attributes 911 such as "makeid", "modelid", and "year". Extracted product attributes 911 may then be normalized (step 405 or step 803) and persisted in universal variable map or variable database 530 or product attribute library 807 referring to website metadata data repository 805 or variable database 530. As illustrated in FIGURE 10, the data gathering, normalizing, and persisting may be performed across a plurality of websites

and apps on the Internet, including search sites and E-commerce sites, for each vertical or product of interest to the Ad system.

[0084] As described above, spidering module or data gathering module 510 may obtain and store these and other scanned names of programming variables and identifiers into a Normalized Variable Data database 530. This database may be considered a universal variable map of all classes and instances of products and services that can be searched and transacted on the Internet. Information stored on this universal variable map is archived for future reference. As an example, this database may store information such as the name of the generic variable for departure city in the above Travel example being "Orig," the name of this piece of information on arbitrary web site A being "SourceCity," and the name of this piece of information on arbitrary web site B being "StartLocation," for instance.

[0085] By creating this universal schema, if web site A wants to advertise a deep-linked ad for web site B, the Ad system would already know what the respective variable names were called, and could programmatically create an ad with accurate mappings without any human intervention. In one embodiment, this mapping function is performed by mapper 613. FIGURES 11A and 11B depict example implementations of mapper 613.

[0086] In the example of FIGURE 11A, Search Site 2 is to provide to its visitors a deep-linked ad for Search Site 1. Mapper 613 may access universal variable map or variable database 530 or product attribute library 807 or master product database 1130 (which implements one embodiment of a universal variable map), cross reference programming variables used by Search Site 2 with those used by Search Site 1, and automatically create a deep-linked ad (deep link 1120 in this example). Deep link 1120 may then be placed on Search Site 2. When a user selects (either explicitly or implicitly) deep link 1120 on Search Site 2, the user's browser is automatically directed to a network address indicated by deep link 1120 ("www.site1.com/cars?make=<>&model=<>" in this example, where "make" and "model" represent mapped field identifiers). A form at the network address on Search Site 1 may be pre-populated with field identifier values (in this example, product attributes such as "Toyota" and "Prius"), along with any user input provided at Search Site 2. FIGURE 11B shows an example in which a product identifier is passed along with deep link 1120 to Search Site 1.

[0087] In FIGURES 11A and 11B, both Search Site 1 and Search Site 2 belong to the same vertical. As FIGURE 12 illustrates, information on a product and product attributes may be obtained by spidering module 510 from different sections of a web page. As an example, spidering module 510 may parse header metadata 1201, identify a vertical or product (utilizing a metadata keyword density method described above in one embodiment), and index the result. In one embodiment, data collected from header metadata 1201 may be stored in website metadata 805. Spidering module 510 may also parse form(s) 903 and form data 1205 associated therewith, identify a product associated with form(s) 903, obtain product attributes from form data 1205, and index the result. In one embodiment, data collected from form(s) 903 and form data 1205 may be stored in product attribute library 807. In one embodiment, vertical data and product data may be enhanced and stored in master product database 1130.

[0088] Spidering module 510 can be implemented in various ways. FIGURE 13 depicts a flow diagram illustrating an example embodiment of method 1300 for spidering across web sites. In this example, spidering module 510 may operate to parse a header section of a web page (step 1301), parse any forms on the page (step 1303), analyze content of the form(s) (step 1305), identify any product in the content of the form(s) (step 1307), enhance product attributes that can be identified (step 1309), persist the form data at the back end (step 1311), index the form data (step 1313), and update vertical data accordingly (step 1315).

[0089] By mapping all spidered variable names to a normalized set of variable names by vertical, embodiments disclosed herein can ensure that the Ad platform and database can scale by the order of magnitude of the number of sites and variables, as opposed to the square function of the number of sits and variables.

[0090] Referring to FIGURE 5, in some embodiments, a Heuristics and Tuning Engine 540 can decide which variables on a site correspond to which normalized variable in the Normalized Database. In some embodiments, Heuristics and Tuning Engine or module 540 may comprise a series of heuristics.

[0091] In some embodiments, these heuristics may be developed by a combination of programmatic logic and human operators that progressively refines what the spider

module infers about forms and schemas and variables. Non-limiting examples of heuristics (rules) may include:

[0092] Categorization. The first key heuristic, already discussed above, is to determine the Vertical and Product that a particular form pertains to, by searching for it on well-known search sites like Google and Bing, and by cross-checking its title meta-tags. Once a site's Vertical and Product category are known, the ad system can look up the schema in the Normalized Variable Database, and determine the finite set of variables that are of relevance to this form. This automatically constrains the set of variable choices to a finite list rather than a completely open-ended mapping process.

[0093] Sequence of fields. The second heuristic is the typical sequencing of fields on a form in a given Vertical. For instance, on a Travel form, the "From" or departure field typically precedes a "To" or arrival field. In this way, the spidering module can expect the first text fields to refer to the "From" field, and the second, the "To" field. Not by way of limitation, and purely for purposes of illustration, for Travel forms this heuristic can be assigned an initial weight of 40%.

[0094] Data types of fields. A second heuristic for determining mappings of variable fields is the data type of the field. For instance, a departure date might be specified to require a date data type, which enables the identification of the variable. Note that heuristics can be combined – for instance, there are only two fields in a Travel form that have a date field associated with them, the Departure Date and the Arrival Date, and the former precedes the latter. Not by way of limitation, and purely for purposes of illustration, for Travel forms this Data Type heuristic can be assigned an initial weight of 10%.

[0095] Partial word matches of text and variable names. This heuristic refers to the functionality to look up names of variables, and see if there is a partial word match from common variations of the field and variable name. For instance, when finding a departure field variable, partial matches can be done with the following common variations: "Fr", "Frm", "From", "Org", "Orig", "Origin", "Origination", "DCity", "DepCity", "DepartureCity", "Src", "Source", "SrcCity", "SourceCity". If there is a match the variable can be identified as matching the departure field. Not by way of limitation, and purely for purposes of illustration, for Travel forms this heuristic can be assigned an initial weight of 20%.

[0096] Field type – text, radio button, select. This heuristic helps to determine to which mapped variable a certain field maps. For instance, a Travel form can have radio buttons for a Round-trip itinerary, a One-way itinerary, or a Multiple destination itinerary. By knowing these fields to have radio buttons in the normalized schema, the ad system can conclude that these variables map to these entry fields. Similarly, a check box field can be concluded to be the "search nearby airports" field, or the "show non-stops only" field as the two check box fields on the form. Not by way of limitation, and purely for purposes of illustration, for Travel forms this heuristic can be assigned an initial weight of 15%.

[0097] Parsing comments for fields. This heuristic entails looking at the comments entries for Form code, and doing partial keyword matches with the comments string. For instance, when finding a departure field variable, partial matches can be done with the comments text strings and the following common variations: "Fr", "Frm", "From", "Org", "Orig", "Origin", "Origination", "DCity", "DepCity", "DepartureCity", "Src", "Source", "SrcCity", "SourceCity". Not by way of limitation, and purely for purposes of illustration, for Travel forms this heuristic can be assigned an initial weight of 5%.

[0098] Association patterns. This heuristic refers to creating associations between fields commonly found together on a form, and using that to map variables to one another. For instance, the check box "select nearby airports" is typically presented in association with a departure airport or an arrival airport. Not by way of limitation, and purely for purposes of illustration, for Travel forms this heuristic can be assigned an initial weight of 5%.

[0099] Proximity patterns. This heuristic refers to what form fields are typically presented close to what other form fields. For instance, in an Auto buying site, the "Make" field is typically presented next to the "Model" field. Not by way of limitation, and purely for purposes of illustration, for Travel forms this heuristic can be assigned an initial weight of 5%.

[0100] In some embodiments, the Heuristics and Tuning Engine may review results of the past spidering and categorization efforts and refine its logic, or add new heuristics, through a combination of programmatic adjustments and human operator adjustments. For example, for each vertical, a set of heuristics can be weighted (between 0% and 100%) to fine tune results such that a deep-linked ad can take a user directly, or substantially

directly to a deeper page than the Home page of the advertiser. This optimization process can be based on, for example, a regression analysis and varying the weights via the analysis. This provides for a way for human operators to provide some of the schema rules, and for programming code to apply and enhance that schema logic for progressively more and more precise collection and mapping of variable names. For instance, in the above Travel form heuristics weights, the ad system can start with the above initial weights, make conclusions on the mappings of the appropriate variables, and conduct an action on the search box of the site, such as initiating a search with the variables as inferred by the initial heuristic weights. It can then examine the results of the action, and determine if the search proceeded as intended. If the search concluded successfully, no weighting adjustments are required, and if the search did not conclude successfully, then the system can adjust the heuristic weights and try the action again. In addition to the automated system-based adjustments of heuristic weights, from time to time human operators may spot trends in variable names, and create new heuristics to enable accurate mapping of variable names. Once such heuristics are created, and weight assigned, the system can again begin to run simulation tests with the new heuristics, and adjust weights adaptively.

[0101] In the spidering and mapping process, should a site be found with a form or field that is not already in the normalized universal variable database, then an embodiment of the invention is to add the new form or field to the universal variable map, thereby adapting and expanding the universal variable map to include all forms and fields and clicks and hovers found on the Internet.

[0102] FIGURE 14 depicts a diagrammatic representation of example system architecture 1400 according to some embodiments disclosed herein. In some embodiments, whenever a publisher (e.g., publisher 140) requests the insertion of a particular advertiser's (e.g., advertiser 150) deep-linked ad into its online media, or an advertiser requests placing its deep-linked ad on a publisher's media, an Ad Generator module 1420 may look up a pre-defined variable map, or create one from the stored variables (e.g., universal variable map 1430) in real-time, obtain other specified attributes of a deep-linked ad, such as target URL and creative specified, and insert a fully composed deep-linked ad into the designated ad server (e.g., ad server 260).

[0103] As illustrated in FIGURE 14, if publisher web site 140 wants to place a deep-linked ad from advertiser web site 150, a request can be made to Ad system 210. Ad Generator module 1420 in Ad system 210 may look up the URL for advertiser web sites 150, look up the respective variable names in universal variable map 1430 (which, in one embodiment, implements Normalized Variable Data database 530), and automatically generate the deep-linked ad code that enables parameter-passing. In one embodiment, Ad Generator module 1420 may insert this code in ad server 260 in the appropriate location. These deep-linked ads can then be served live – either on web sites, or newsletters, or mobile apps that have ad serving capability. Once the deep-linked ads have been inserted into ad servers, they can be served up in real-time.

[0104] An embodiment of the invention includes the possibility that the ad is requested by the publisher web site 140 and the ad is served by the advertiser web site 150 not directly by publisher and advertiser clients, but via any form of agency or network or exchange or other third-party intermediary with access to publisher impressions or advertisers ads.

[0105] To an end user (e.g., a web site visitor), a deep-linked ad automatically generated via an embodiment disclosed herein may appear like a typical ad, a banner, an icon, an animated ad, a text ad, a check box, or anything of interest on a web site. For example, in FIGURE 15, a portion of site 1500 is shown. In this example, “Hard Drive Size” and “Brand” represent variables for the vertical Electronics, sub-vertical Computers and product category Hard Drives, while “80 GB and Under” and “81 to 120 GB” represent possible values of the variable “Hard Drive Size”. The user may click on the “80 GB and Under” selection, which would set the variable for “Hard Drive Size” on the publisher site, and through the mapping mechanism described above, on the advertiser site, to the value of “80 GB and Under”. Similarly, the user may hover over “80 GB and Under” selection which may trigger the direct deep-linking, causing the user’s browser to fetch and display a deep-linked page on the advertiser site. In one embodiment, a product may be identified from product attributes and/or parent elements of the selection being clicked or hovered over. The user’s browser is therefore caused to fetch and display a deep-linked page for the product.

[0106] Hovering is one of many possible ways to obtain input data. As discussed above, embodiments disclosed herein provide a method for automatically spidering names of

data input fields or variables on web pages. These data input fields or variables may be part of a form provided by a site. A user action may explicitly or implicitly set a variable or variables. Variations of linking data variables and fields may include a source form, a destination form, a single source to many destination form, many sources to one destination form, cascading forms (e.g., a first form links to a second form which links to a third form, etc.), and so on.

[0107] Explicitly, a user may be required to fill out a form at a certain site. For example, a travel site may require a user to fill out departure and arrival information for a vertical search, while a search engine may require the user to provide a text string which can be parsed out and linked to a vertical search site such as a particular travel site or to another search engine that can accept the parsed input.

[0108] FIGURE 16 depicts a flow diagram illustrating one embodiment of example method 1600 for deep-linking. In this example, a user provided query string is parsed and split into words and phrases (step 1601). For example, a text string “flight rates from London to Amsterdam March 13” may be divided into “flight”, “rates, “from”, “London”, “to”, “Amsterdam”, and “March 13”. Words and/or phrases that may have value are identified (step 1603). In this example, “flight”, “from London”, “to Amsterdam”, and “March 13” are determined to have value and are mapped to product attributes (step 1605). For example, “flight” is mapped to “air travel”, “from London” is mapped to “departure city”, “to Amsterdam” is mapped to “arrival city”, and “March 13” is mapped to “departure date”. In this case, “air travel”, “departure city”, “arrival city”, and “departure date” are normalized product attributes (programming variables) in a universal variable map. Using these product attributes, a product can be identified (step 1607), which is “flight ticket for air travel” in this example. Using the product identifier, forms associated with this product can be identified (step 1609). Example forms may include “Expedia air search form, Orbitz air search form, American Airlines search form, Kayak air search form, etc. Although each site has its own programming variables, each of which is appropriately populated with values from the user’s search query (i.e., the departure city, the arrival city, the departure date, etc.) utilizing the normalized product attributes in the universal variable map.

[0109] The above-described process can occur in real time such that, immediately after the user types in the text search query and causes the browser to submit a request for a result on the search query, the user's input can be parsed, decomposed into the pertinent values for the appropriate variables, linked to the corresponding variables on the advertiser's site, and land the ad click deep into the advertiser's site. In this way, the user's browser "fast forwards" from a horizontal search page to a deep vertical form page where the user can purchase a flight ticket to travel by air from London to Amsterdam on March 13.

[0110] In some cases, a user may not be required to type in information, but may be required to click or otherwise select an icon representing a target of interest (e.g., a product or service offered by or through the web site). In some cases, as discussed above, a user may simply hover over an ad and value(s) to certain variable(s) may be set accordingly. At run time, these values can be used to customize an ad copy, set other linked and mapped variables. Although a user clicking or hovering over site text or image is not an explicit data-entry action on the part of the user, contextual information provided by their implicit action can still be recognized and utilized by embodiments disclosed herein to customize and automatically generate deep-linked ads that can take the user directly to a checkout page with pre-populated values extracted from the user interaction. For instance, say a user is on the Amazon (www.amazon.com) web site. The user then selects the laptops section, and is on a page showing laptop selections by brand, product type, price range, etc. In this implementation, the ad system can scan and read in the tags on this page on the Amazon web site. Now when the user clicks on a selection on the Amazon laptops page, the appropriate variables can be set – for instance, Vertical can be set to Electronics, the Product to Laptops, and the brand to Dell, price to Under $2000, etc. Then on the results page for those selections, deep-linked ads can be presented with the appropriate variable values set.

[0111] In another embodiment, the user might only hover over the Dell laptop selection on the Amazon site, and the ad system can detect the product or attribute hovered over, and present deep-linked ads with all known variables set.

[0112] In embodiments disclosed herein, deep-linked ads between any two arbitrary web sites or mobile apps and other deployment scenarios can be created. Those skilled in the art

will appreciate that embodiments disclosed herein can be adapted for various ad types, including, but are not limited to, text, graphics, animations, videos, audios, etc. For example, in one embodiment, a deep-linked handshake can be inserted into a video showing a product or service. In this case, no user action is involved. Rather, the linkage insertion is based on ad selection which is based on content being displayed or played to the user. For instance, the user may be watching a movie with an actor using an iPhone 4G. The movie may embed data tagging synchronized with the video, whereby certain product identifications can be made available to the ad system. Knowledge of the product in use can then be used to set the appropriate variables, such as Vertical can be set to Electronics, Product can be set to Smart Phones, Model can be set to iPhone 4G, etc. A deep-linked ad presented at this point can be precisely targeted to an iPhone 4G available for purchase in the geographic vicinity, and clicking on the ad might take the user directly to the iPhone 4G checkout page on the advertising site.

[0113] Some embodiments disclosed herein provide a method for creating cascades or chains of such deep-linked ads such that an arbitrary number of ad linkages can be set up, whereby an advertiser receiving a click can turn around and become a publisher for the next deep-linked ad click sent to another advertiser on that site. Embodiments disclosed herein thus automate a new generation of ads on the Internet and mobile devices that have not been possible before without extensive human intervention and programming.

[0114] Although the invention has been described with respect to specific embodiments thereof, these embodiments are merely illustrative, and not restrictive of the invention. The description herein of illustrated embodiments of the invention, including the description in the Abstract and Summary, is not intended to be exhaustive or to limit the invention to the precise forms disclosed herein (and in particular, the inclusion of any particular embodiment, feature or function within the Abstract or Summary is not intended to limit the scope of the invention to such embodiment, feature or function). Rather, the description is intended to describe illustrative embodiments, features and functions in order to provide a person of ordinary skill in the art context to understand the invention without limiting the invention to any particularly described embodiment, feature or function, including any such embodiment feature or function described in the Abstract or Summary. While specific embodiments of, and examples for, the invention are

described herein for illustrative purposes only, various equivalent modifications are possible within the spirit and scope of the invention, as those skilled in the relevant art will recognize and appreciate. As indicated, these modifications may be made to the invention in light of the foregoing description of illustrated embodiments of the invention and are to be included within the spirit and scope of the invention. Thus, while the invention has been described herein with reference to particular embodiments thereof, a latitude of modification, various changes and substitutions are intended in the foregoing disclosures, and it will be appreciated that in some instances some features of embodiments of the invention will be employed without a corresponding use of other features without departing from the scope and spirit of the invention as set forth. Therefore, many modifications may be made to adapt a particular situation or material to the essential scope and spirit of the invention.

[0115] Reference throughout this specification to "one embodiment," "an embodiment," or "a specific embodiment," or similar terminology means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment and may not necessarily be present in all embodiments. Thus, respective appearances of the phrases "in one embodiment," "in an embodiment," or "in a specific embodiment," or similar terminology in various places throughout this specification are not necessarily referring to the same embodiment. Furthermore, the particular features, structures, or characteristics of any particular embodiment may be combined in any suitable manner with one or more other embodiments. It is to be understood that other variations and modifications of the embodiments described and illustrated herein are possible in light of the teachings herein and are to be considered as part of the spirit and scope of the invention.

[0116] In the description herein, numerous specific details are provided, such as examples of components and/or methods, to provide a thorough understanding of embodiments of the invention. One skilled in the relevant art will recognize, however, that an embodiment may be able to be practiced without one or more of the specific details, or with other apparatus, systems, assemblies, methods, components, materials, parts, and/or the like. In other instances, well-known structures, components, systems, materials, or operations are not specifically shown or described in detail to avoid

obscuring aspects of embodiments of the invention. While the invention may be illustrated by using a particular embodiment, this is not and does not limit the invention to any particular embodiment and a person of ordinary skill in the art will recognize that additional embodiments are readily understandable and are a part of this invention.

[0117] Any suitable programming language can be used to implement the routines, methods or programs of embodiments of the invention described herein, including C, C++, Java, assembly language, etc. Different programming techniques can be employed such as procedural or object oriented. Any particular routine can execute on a single computer processing device or multiple computer processing devices, a single computer processor or multiple computer processors. Data may be stored in a single storage medium or distributed through multiple storage mediums, and may reside in a single database or multiple databases (or other data storage techniques). Although the steps, operations, or computations may be presented in a specific order, this order may be changed in different embodiments. In some embodiments, to the extent multiple steps are shown as sequential in this specification, some combination of such steps in alternative embodiments may be performed at the same time. The sequence of operations described herein can be interrupted, suspended, or otherwise controlled by another process, such as an operating system, kernel, etc. The routines can operate in an operating system environment or as stand-alone routines. Functions, routines, methods, steps and operations described herein can be performed in hardware, software, firmware or any combination thereof.

[0118] Embodiments described herein can be implemented in the form of control logic in software or hardware or a combination of both. The control logic may be stored in an information storage medium, such as a computer-readable medium, as a plurality of instructions adapted to direct an information processing device to perform a set of steps disclosed in the various embodiments. Based on the disclosure and teachings provided herein, a person of ordinary skill in the art will appreciate other ways and/or methods to implement the invention.

[0119] It is also within the spirit and scope of the invention to implement in software programming or code an of the steps, operations, methods, routines or portions thereof described herein, where such software programming or code can be stored in a

computer-readable medium and can be operated on by a processor to permit a computer to perform any of the steps, operations, methods, routines or portions thereof described herein. The invention may be implemented by using software programming or code in one or more digital computers, by using application specific integrated circuits, programmable logic devices, field programmable gate arrays, or the like. Optical, chemical, biological, quantum or nanoengineered systems, components and mechanisms may be used. In general, the functions of the invention can be achieved by any means as is known in the art. For example, distributed, or networked systems, components and circuits can be used. In another example, communication or transfer (or otherwise moving from one place to another) of data may be wired, wireless, or by any other means.

[0120] A "computer-readable medium" may be any medium that can contain, store, communicate, propagate, or transport the program for use by or in connection with the instruction execution system, apparatus, system or device. The computer readable medium can be, by way of example only but not by limitation, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, system, device, propagation medium, or computer memory. Such computer-readable medium shall generally be machine readable and include software programming or code that can be human readable (e.g., source code) or machine readable (e.g., object code). Examples of non-transitory computer-readable media can include random access memories, read-only memories, hard drives, data cartridges, magnetic tapes, floppy diskettes, flash memory drives, optical data storage devices, compact-disc read-only memories, and other appropriate computer memories and data storage devices. In an illustrative embodiment, some or all of the software components may reside on a single server computer or on any combination of separate server computers. As one skilled in the art can appreciate, a computer program product implementing an embodiment disclosed herein may comprise one or more non-transitory computer readable media storing computer instructions translatable by one or more processors in a computing environment.

[0121] A "processor" includes any, hardware system, mechanism or component that processes data, signals or other information. A processor can include a system with a central

processing unit, multiple processing units, dedicated circuitry for achieving functionality, or other systems. Processing need not be limited to a geographic location, or have temporal limitations. For example, a processor can perform its functions in "real-time," "offline," in a "batch mode," etc. Portions of processing can be performed at different times and at different locations, by different (or the same) processing systems.

[0122] It will also be appreciated that one or more of the elements depicted in the drawings/figures can also be implemented in a more separated or integrated manner, or even removed or rendered as inoperable in certain cases, as is useful in accordance with a particular application. Additionally, any signal arrows in the drawings/Figures should be considered only as exemplary, and not limiting, unless otherwise specifically noted.

[0123] As used herein, the terms “comprises,” “comprising,” "includes," "including," "has," "having," or any other variation thereof, are intended to cover a non-exclusive inclusion. For example, a process, product, article, or apparatus that comprises a list of elements is not necessarily limited only those elements but may include other elements not expressly listed or inherent to such process, product, article, or apparatus.

[0124] Furthermore, the term "or" as used herein is generally intended to mean "and/or" unless otherwise indicated. For example, a condition A or B is satisfied by any one of the following: A is true (or present) and B is false (or not present), A is false (or not present) and B is true (or present), and both A and B are true (or present). As used herein, including the claims that follow, a term preceded by "a" or "an" (and "the" when antecedent basis is "a" or "an") includes both singular and plural of such term, unless clearly indicated within the claim otherwise (i.e., that the reference "a" or "an" clearly indicates only the singular or only the plural). Also, as used in the description herein and throughout the claims that follow, the meaning of "in" includes "in" and "on" unless the context clearly dictates otherwise. The scope of the present disclosure should be determined by the following claims and their legal equivalents.

WHAT IS CLAIMED IS:

1. A method, comprising:

generating, by a server computer, a deep-linked ad utilizing a universal variable map stored in a data store and accessible by the server computer, the universal variable map linking programming variables across multiple sites on the Internet and applications;

serving, by the server computer, the deep-linked ad through a first site or mobile application, the deep-linked ad linking a first set of programming variables of a first site on the Internet or a first mobile of the applications with a second set of programming variables of a second site on the Internet or a second mobile application, the first set of programming variables being associated with the second set of programming variables in the universal variable map stored in the data store; and

in response to a user interacting with the deep-linked ad displayed on a user device through an instance of the first site on the Internet or the first mobile application:

extracting, through the first site on the Internet or the first mobile application, values corresponding to the first set of programming variables;

automatically directing the user device to the second site on the Internet or the second mobile application; and

passing the values corresponding the first set of programming variables to the second set of programming variables such that one or more fields corresponding to the second set of programming variables of the second site on the Internet or the second mobile application are explicitly or implicitly pre-populated with the values extracted through the first site on the Internet or the first mobile application.

DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

ABSTRACT OF THE DISCLOSURE

[0125] Embodiments disclosed herein can leverage dynamic data, fields and implied information from arbitrary web sites, mobile apps and other forms of online media to create a universal variable map and automatically generate deep-linked ads utilizing the universal variable map, linking any arbitrary web site, mobile app, network, Internet TV channel, and other forms of online media to any other such arbitrary web site, mobile app, network, Internet TV channel, and other forms of online media. The automatically generated deep-linked ads can be inserted into any ad server and served out from there in real-time. A deep-linked ad thus presented to a user can take the user from a starting page on one site or application where the ad is displayed directly to a resulting page such as a checkout page on another site or mobile application, with pertinent information already pre-populated, and action already initiated for the user.

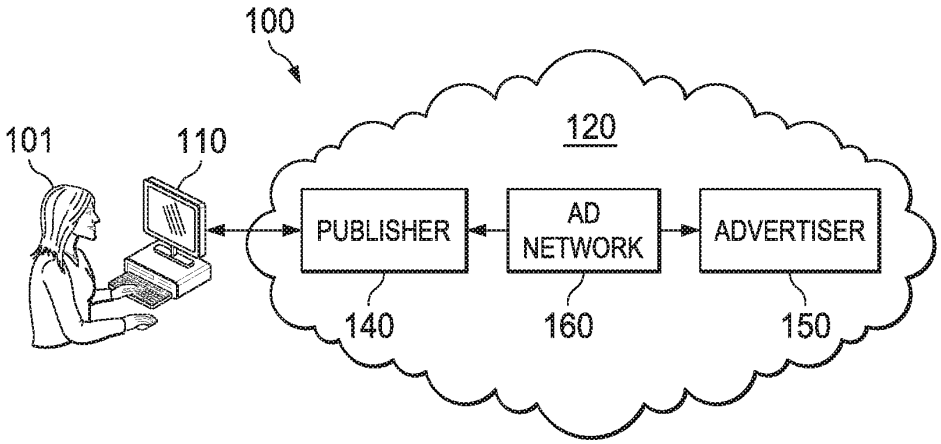


FIG. 1

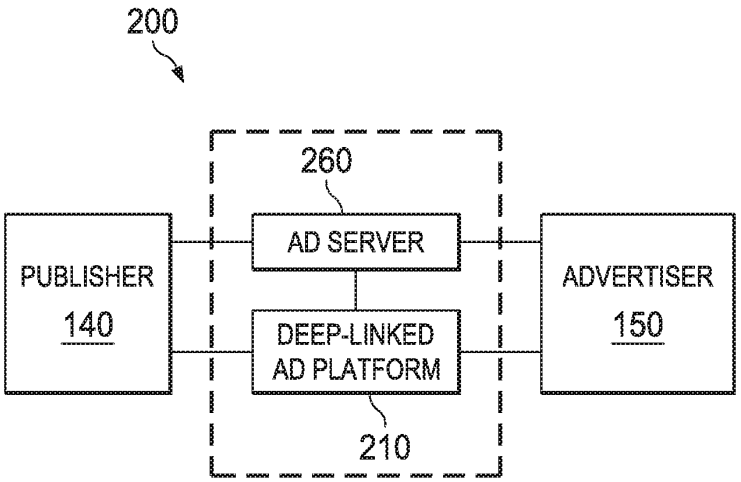


FIG. 2

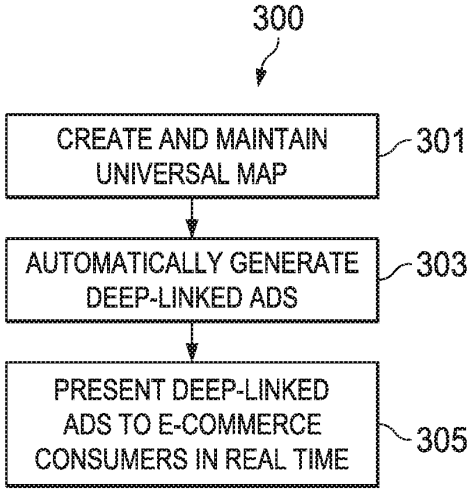


FIG. 3

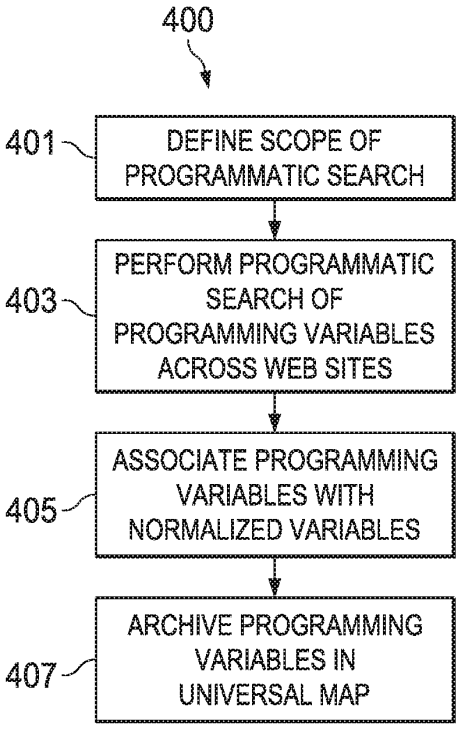


FIG. 4

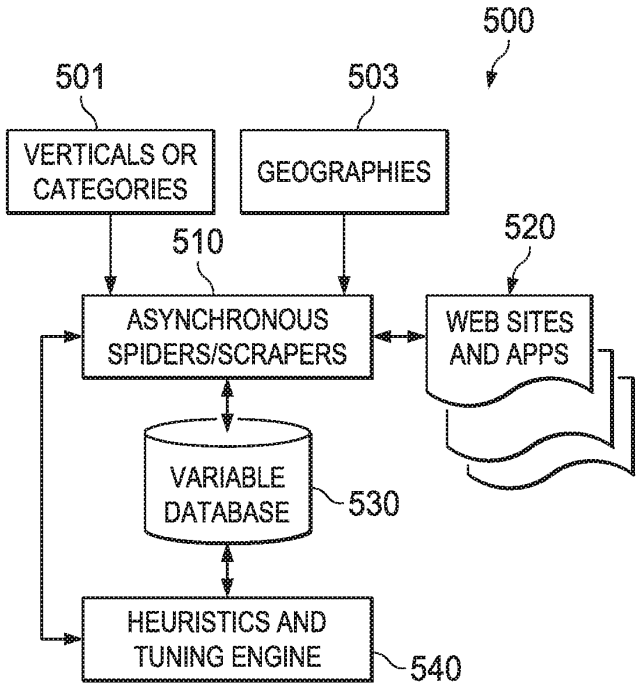


FIG. 5

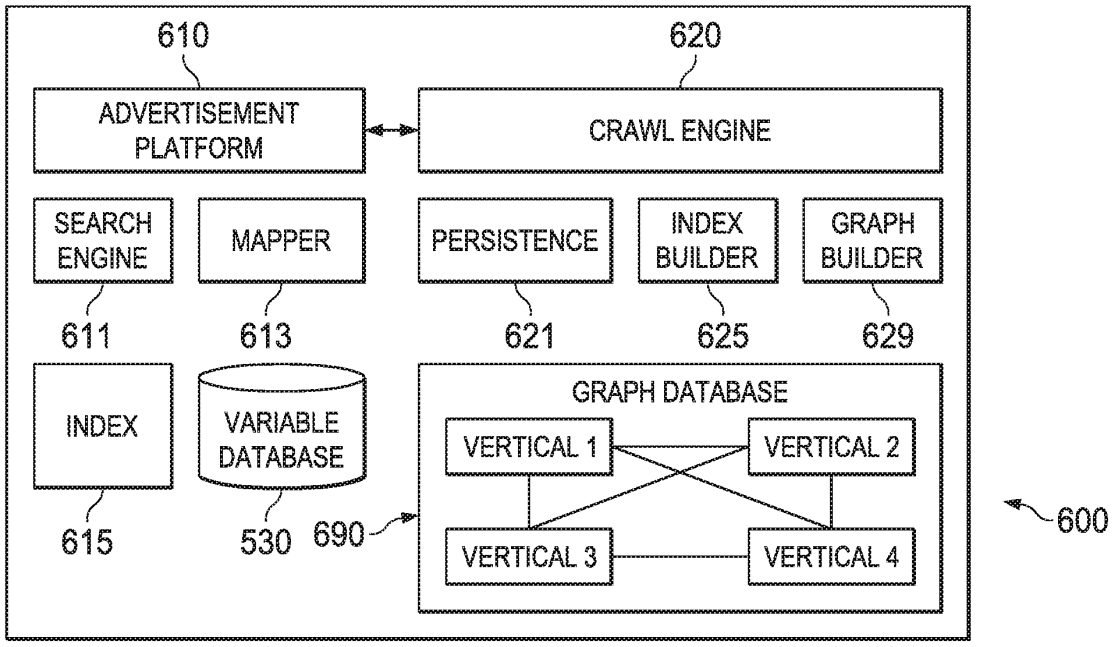


FIG. 6

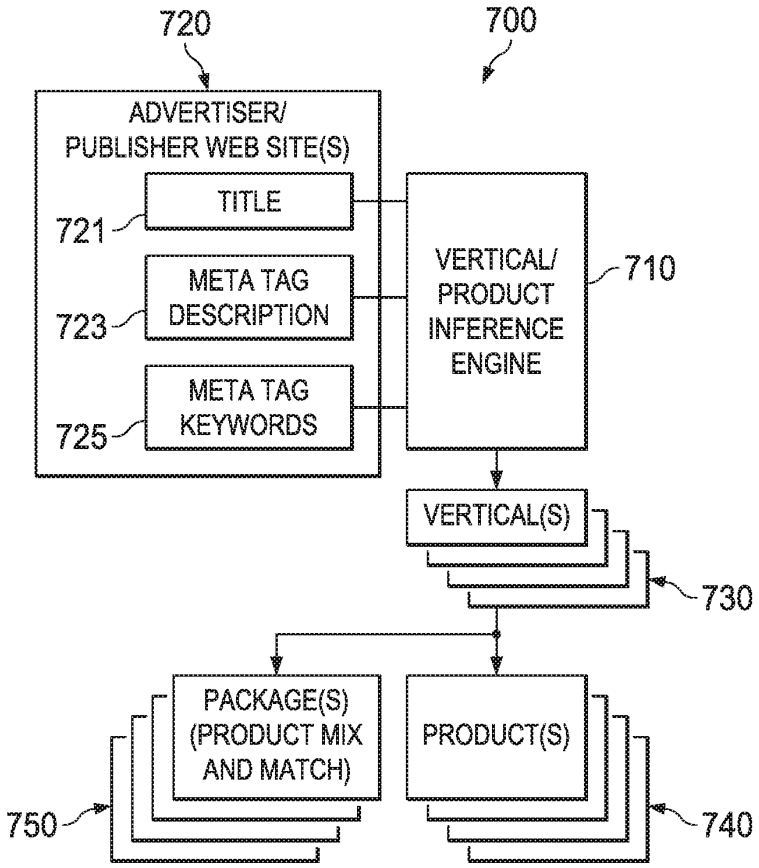

720
700
ADVERTISER/
PUBLISHER WEB SITE(S)
TITLE
721
META TAG
DESCRIPTION
723
META TAG
KEYWORDS
725
VERTICAL/
PRODUCT
INFERENCE
ENGINE
710
VERTICAL(S)
730
PACKAGE(S)
(PRODUCT MIX
AND MATCH)
PRODUCT(S)
750
740

FIG. 7

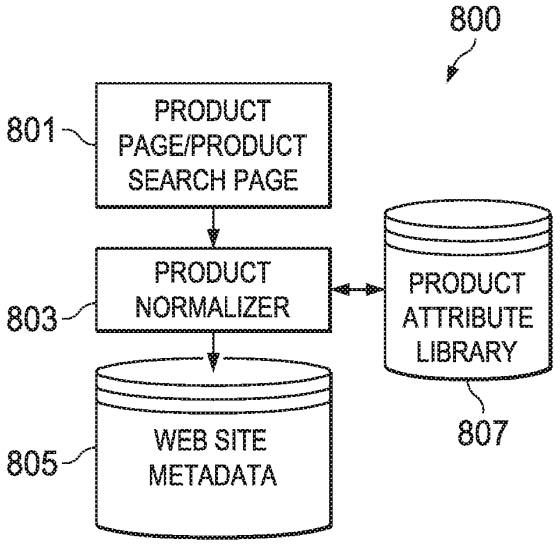

800
801
PRODUCT
PAGE/PRODUCT
SEARCH PAGE
PRODUCT
NORMALIZER
803
PRODUCT
ATTRIBUTE
LIBRARY
807
WEB SITE
METADATA
805

FIG. 8

PRODUCT
901
FORM
903
Research and Reviews
Browse our buying guides for expert and consumer reviews, features, photos and videos
Browse by Make and Model:
Make:
Honda
Model:
Civic
Year:
2011
Find a Car
Browse by type:
Passenger Cars
Sports Cars
SUVs
Green Cars/ Hybrids
Minivans
Pickup Trucks
Luxury Cars
Crossovers
Our Recommendations:
Best Bets
Lifestyle Guide
Family Cars
More Research Tools:
Compare Cars Side by Side
Build and Price Your New Car
PRODUCT ATTRIBUTES
Vertical - Automotive
Make – CarManufacturer
Model – SuperSport
Year - 2011
911
FORM SOURCE CODE AND DATA
913
<form name="crpWidget" id="crpWidget" method="get"
onsubmit="goToResearch()">
<label for="makeid">Make:</label>
<select name="makeid" id="makeid" onchange="popModels();"></select>
<label for="modelid">Model:</label>
<select name="modelid" id="modelid" onchange="popYears();"></select>
<label for="year">Year:</label>
<select name="year" id="year"></select>
<!-- button -->
<a class="button primary" href="javascript:void(0)"
onclick="s_objectID="Find a Car_1";return
this.s_oc?this.s_oc(e):true">Find a Car
</form>

FIG. 9

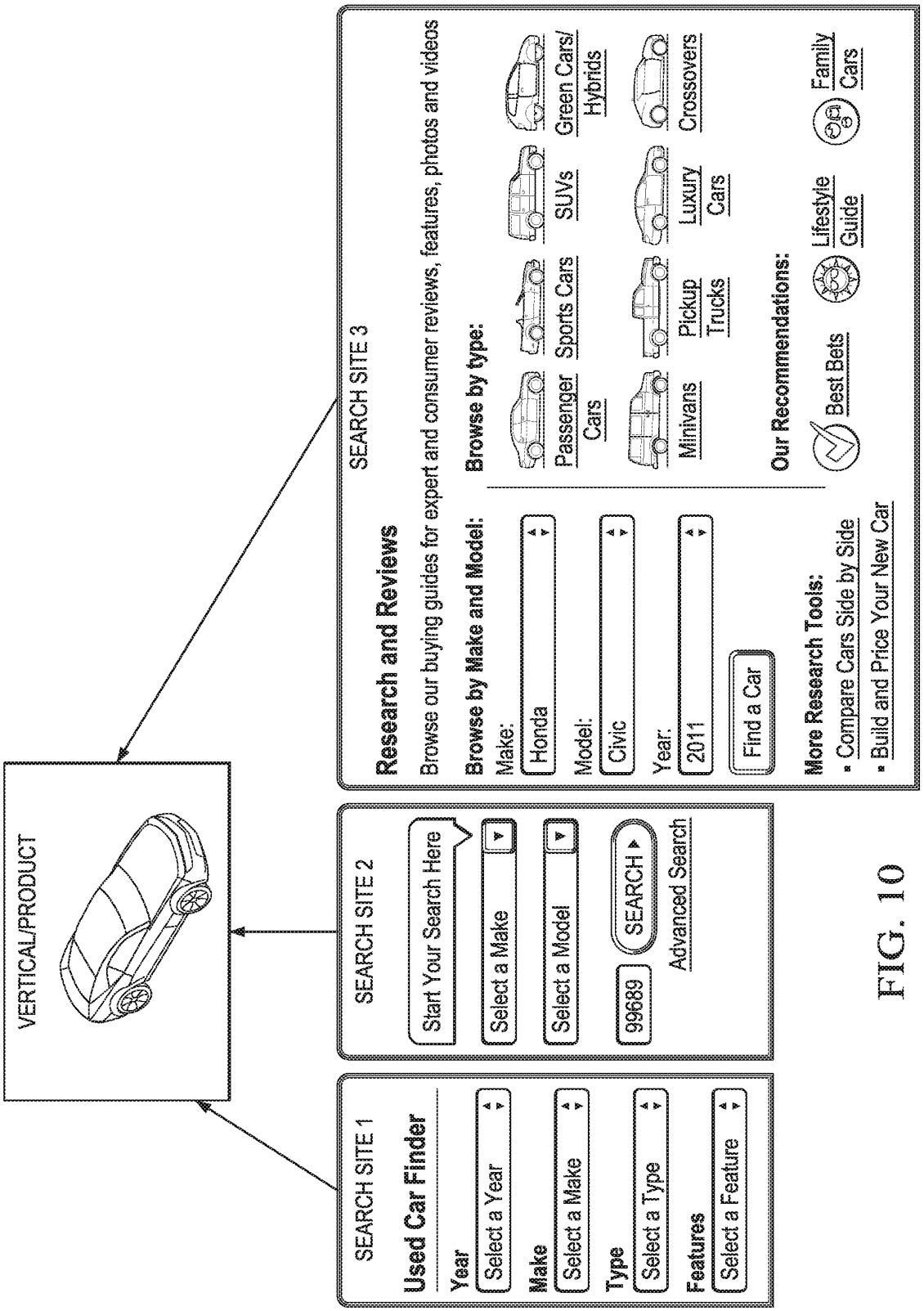

VERTICAL/PRODUCT
SEARCH SITE 1
Used Car Finder
Year
Select a Year
Make
Select a Make
Type
Select a Type
Features
Select a Feature
SEARCH SITE 2
Start Your Search Here
Select a Make
Select a Model
99689
SEARCH
Advanced Search
SEARCH SITE 3
Research and Reviews
Browse our buying guides for expert and consumer reviews, features, photos and videos
Browse by Make and Model:
Make:
Honda
Model:
Civic
Year:
2011
Find a Car
Browse by type:
Passenger Cars
Sports Cars
SUVs
Green Cars/ Hybrids
Minivans
Pickup Trucks
Luxury Cars
Crossovers
Our Recommendations:
Best Bets
Lifestyle Guide
Family Cars
More Research Tools:
Compare Cars Side by Side
Build and Price Your New Car

FIG. 10

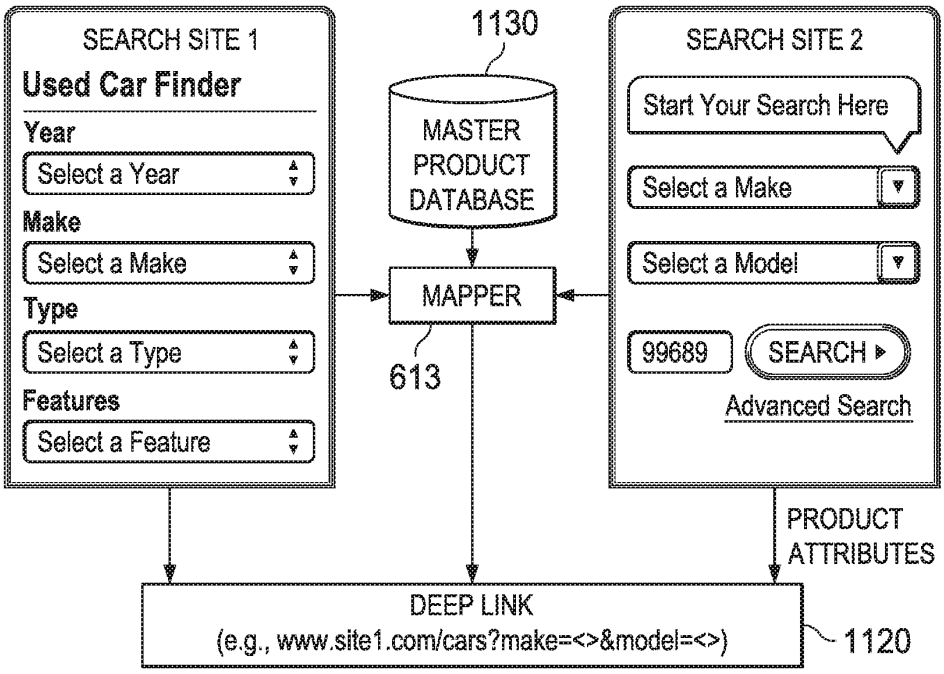


FIG. 11A

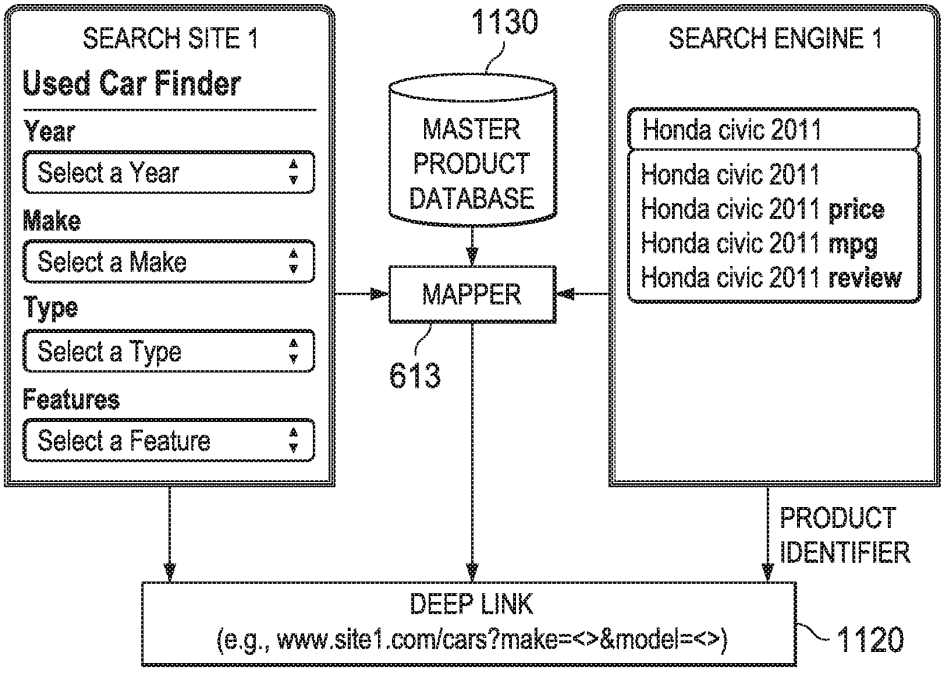


FIG. 11B

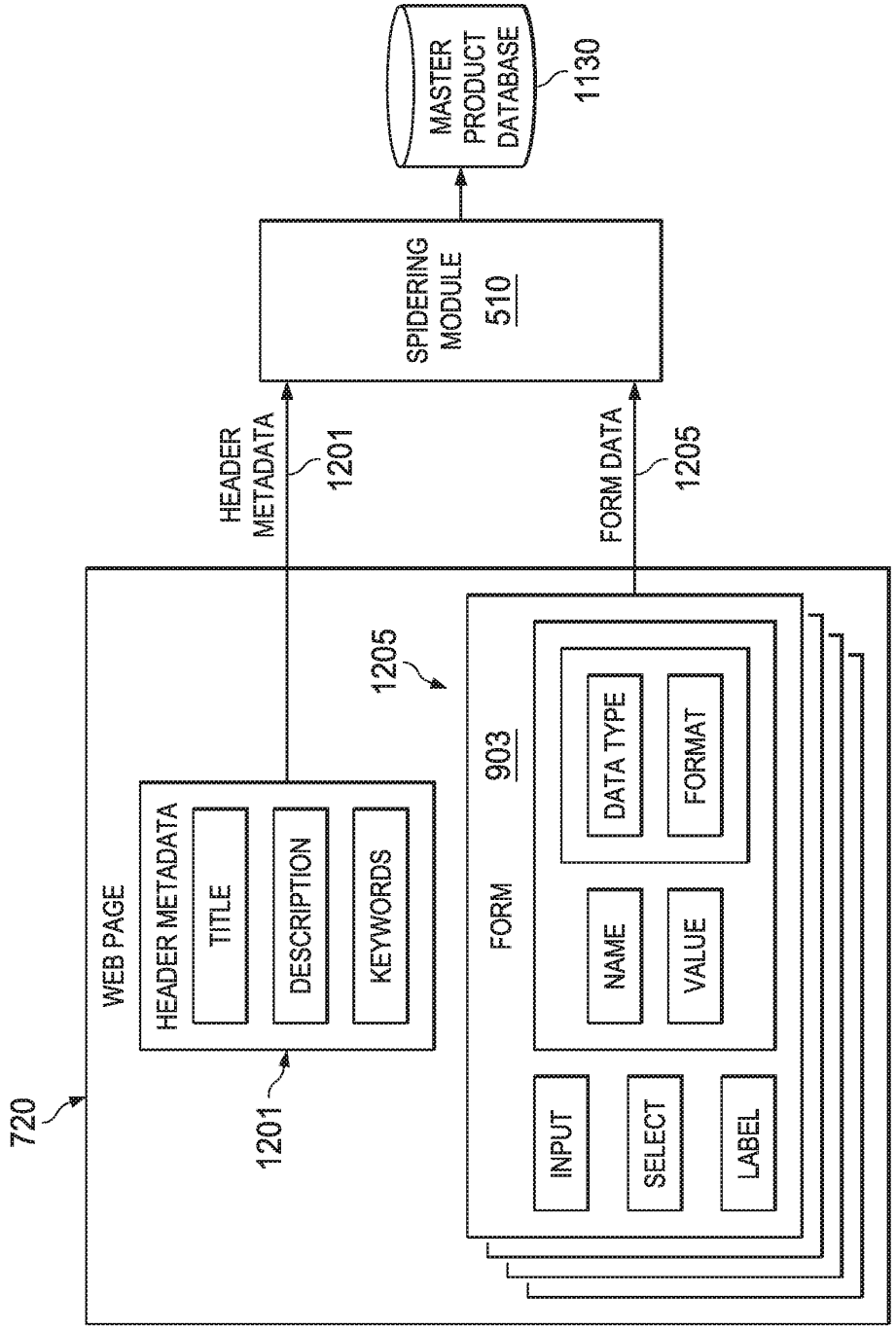

MASTER PRODUCT DATABASE
1130
SPIDERING MODULE 510
HEADER METADATA
1201
FORM DATA
1205
WEB PAGE
720
HEADER METADATA
TITLE
DESCRIPTION
KEYWORDS
1201
1205
FORM 903
NAME
VALUE
DATA TYPE
FORMAT
INPUT
SELECT
LABEL

FIG. 12

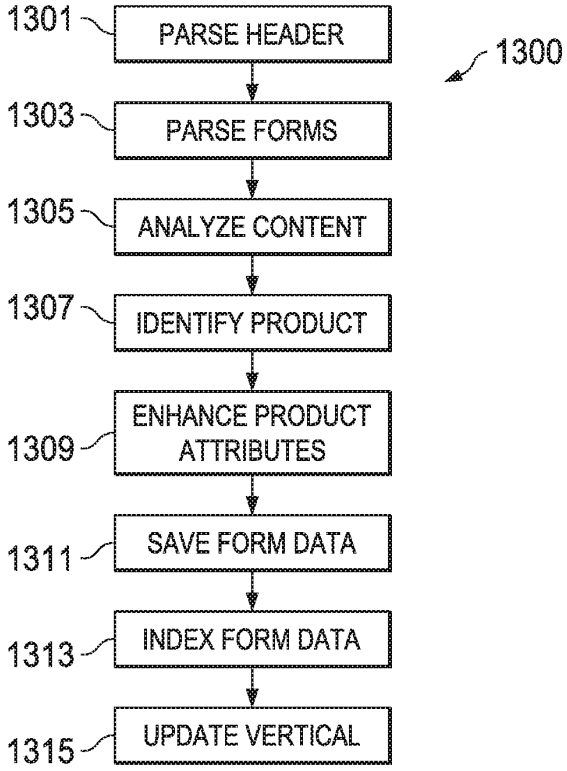

1301
PARSE HEADER
1300
1303
PARSE FORMS
1305
ANALYZE CONTENT
1307
IDENTIFY PRODUCT
1309
ENHANCE PRODUCT ATTRIBUTES
1311
SAVE FORM DATA
1313
INDEX FORM DATA
1315
UPDATE VERTICAL

FIG. 13

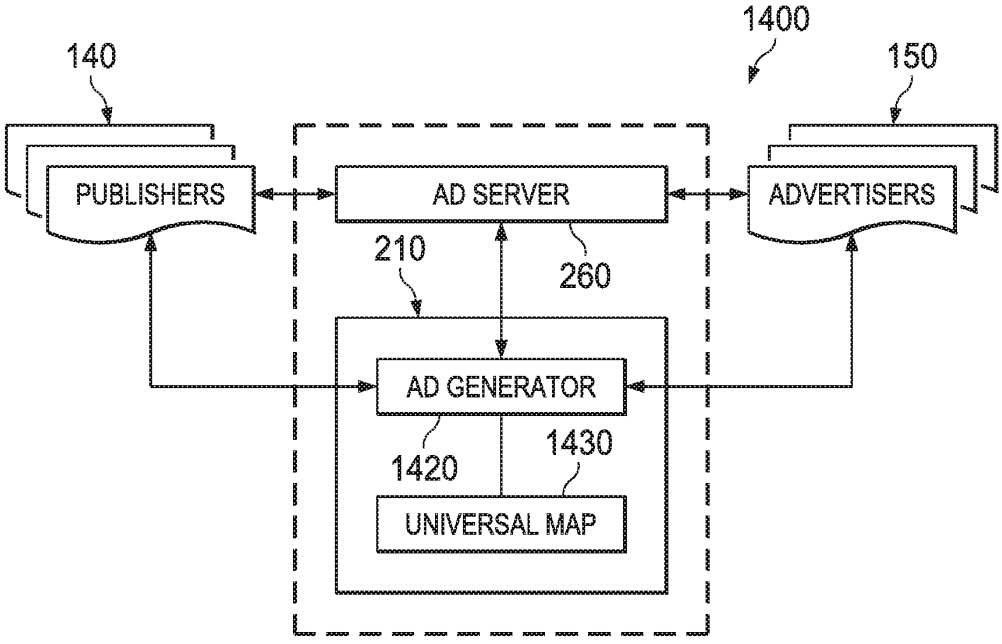

1400
140
150
PUBLISHERS
AD SERVER
ADVERTISERS
210
260
AD GENERATOR
1420
1430
UNIVERSAL MAP

FIG. 14

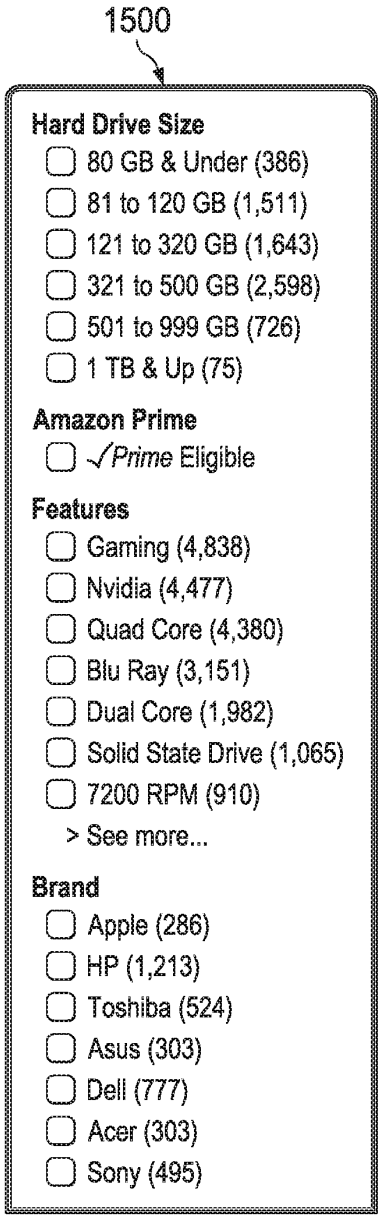

1500
Hard Drive Size
80 GB & Under (386)
81 to 120 GB (1,511)
121 to 320 GB (1,643)
321 to 500 GB (2,598)
501 to 999 GB (726)
1 TB & Up (75)
Amazon Prime
✓Prime Eligible
Features
Gaming (4,838)
Nvidia (4,477)
Quad Core (4,380)
Blu Ray (3,151)
Dual Core (1,982)
Solid State Drive (1,065)
7200 RPM (910)
> See more...
Brand
Apple (286)
HP (1,213)
Toshiba (524)
Asus (303)
Dell (777)
Acer (303)
Sony (495)

FIG. 15

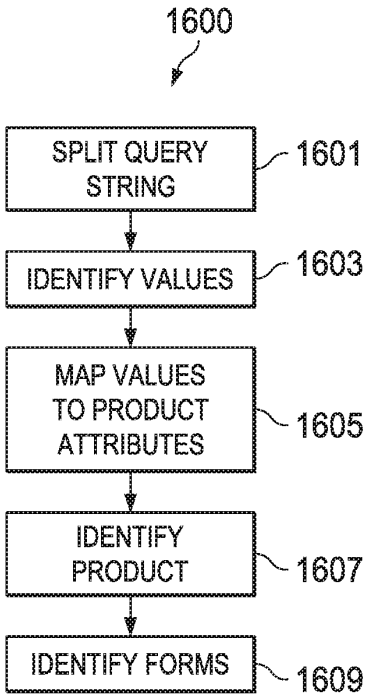

1600
SPLIT QUERY STRING
1601
IDENTIFY VALUES
1603
MAP VALUES TO PRODUCT ATTRIBUTES
1605
IDENTIFY PRODUCT
1607
IDENTIFY FORMS
1609

FIG. 16

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)		
	Attorney Docket No.	WAYF1100-2
	First Named Inventor	Narendra Nath
	COMPLETE IF KNOWN	
	Application Number	15/463,790
	Filing Date	03/20/2017
☐ Declaration Submitted with Initial Filing ☒ Declaration Submitted after Initial Filing	*Group Art Unit*	3622
	Examiner Name	Not Yet Assigned

DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE

(Title of Invention)

As a below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application,

OR

☒ United States Application Number or PCT International application number 15/463,790 filed on March 20, 2017, as amended on April 24, 2017.

I have reviewed and understand the contents of the above-identified specification, including the claims.

I believe I am the original inventor or an original joint inventor of a claimed invention in the above-identified application.

The above-identified application was made or authorized to be made by me.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me which is material to the patentability as defined in 37 CFR 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.

I acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

LEGAL NAME OF INVENTOR:			
Given Name (first and middle [if any])		Family Name or Surname	
NARENDRA		NATH	
Inventor's Signature	Narendra Nath	Date	Apr 24, 2017

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)		
	Attorney Docket No.	WAYF1100-2
	First Named Inventor	Narendra Nath
	COMPLETE IF KNOWN	
	Application Number	15/463,790
	Filing Date	03/20/2017
☐ Declaration Submitted with Initial Filing ☒ Declaration Submitted after Initial Filing	*Group Art Unit*	3622
	Examiner Name	Not Yet Assigned

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OR

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I acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

LEGAL NAME OF INVENTOR:			
Given Name (first and middle [if any])		Family Name or Surname	
MALLIKARJUN		HIREMANI	
Inventor's Signature		Date	April 24, 2017

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No. (Opt.) **META1100-11**

First Named Inventor: **Narendra Nath**	
Application Number **Not Yet Assigned**	Filing or 371 (c) Date: **Herewith**
For **DEEP-LINKING SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR ONLINE ADVERTISEMENT AND E-COMMERCE**	
Group Art Unit **Not Yet Assigned**	Examiner **Not Yet Assigned**
Confirmation Number: **Not Yet Assigned**	

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

CERTIFICATION OF TRANSMISSION UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence is being transmitted to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 via the U.S. Patent and Trademark Office Electronic Filing System (EFS-Web) on February 1, 2019.

By: M. Marquez
Margarita Marquez

Dear Sir,

Applicant respectfully requests, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the information listed on the attached SB08A/B form(s) be considered and cited in the examination of the above-identified application. A copy of U.S. Patent(s) and U.S. Patent Application Publication(s) listed on the attached SB08A form is not being submitted with this Information Disclosure Statement pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i) by the U.S. Patent and Trademark Office. Where applicable, a copy of foreign patent document(s) as well as information listed on the attached SB08B form is enclosed for the convenience of the Examiner.

☒ This Information Disclosure Statement is being submitted within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d).

☐ This Information Disclosure Statement is being submitted within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application;

☐ This Information Disclosure Statement is being submitted before the mailing of a First Office Action on the merits; or

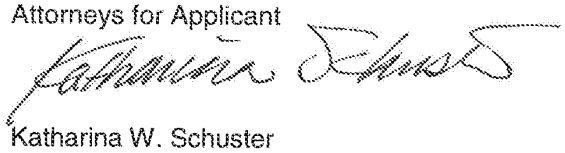
☐ This Information Disclosure Statement is being submitted before the mailing of a First Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114.

Pursuant to 37 C.F.R. §§ 1.97(g) and (h), no representation is made that a search has been made or that this information is material to patentability of the present application.

Applicant does not believe any fees are due and owing at this time. If Applicant is in error, the Director is hereby authorized to deduct any and all appropriate fees from Deposit Account 50-3183 of SPRINKLE IP LAW GROUP.

Respectfully submitted,

SPRINKLE IP LAW GROUP
Attorneys for Applicant



Katharina W. Schuster
Reg. No. 50,000

Dated: February 1, 2019

1301 W. 25th Street, Suite 408
Austin, Texas 78705
Tel. (512) 637-9220
Fax. (512) 371-9088