

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

Assignment ID: PATI61656

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SPX Holdings, LLC	09/04/2023
Parvinder Chadha	09/04/2023
Sharon Gill Chadha	09/04/2023
Xen Cheng	09/04/2023
RECEIVING PARTY DATA	
Company Name:	Rule 14 LLC
Street Address:	2701 E Grauwyler Road
City:	Irving
State/Country:	TEXAS
Postal Code:	75061
PROPERTY NUMBERS Total: 16	
Property Type	Number
Patent Number:	9229977
Patent Number:	10102257
Patent Number:	10108713
Patent Number:	10114871
Patent Number:	10108678
Patent Number:	10114872
Patent Number:	10120911
Patent Number:	10114899
Patent Number:	10108679
Patent Number:	10114870
Patent Number:	10108680
Patent Number:	10108723
Patent Number:	10108724
Patent Number:	10198516
Patent Number:	10108725
Patent Number:	11048712

CORRESPONDENCE DATA**Fax Number:** 3102015219

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 3102777200**Email:** LAXIPDocket@seyfarth.com**Correspondent Name:** Puya Partow-Navid**Address Line 1:** Seyfarth Shaw LLP**Address Line 2:** 2029 Century Park East, Suite 3500**Address Line 4:** Los Angeles, CALIFORNIA 90067-3021

ATTORNEY DOCKET NUMBER:	79531-000001
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NAME OF SUBMITTER:	Eva Salazar
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SIGNATURE:	Eva Salazar
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DATE SIGNED:	02/29/2024
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	This document serves as an Oath/Declaration (37 CFR 1.63).
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Total Attachments: 5

source=2023-9-1 - Rule 14_SPX_Inventors Patent Assignment Agreement - xc#page1.tif

source=2023-9-1 - Rule 14_SPX_Inventors Patent Assignment Agreement - xc#page2.tif

source=2023-9-1 - Rule 14_SPX_Inventors Patent Assignment Agreement - xc#page3.tif

source=2023-9-1 - Rule 14_SPX_Inventors Patent Assignment Agreement - xc#page4.tif

source=2023-9-1 - Rule 14_SPX_Inventors Patent Assignment Agreement - xc#page5.tif

PATENT ASSIGNMENT AGREEMENT

This Assignment Agreement (“**Agreement**”), dated and effective as of September 4, 2023, is between and by Rule 14 LLC (“**Rule 14**”), a Nevada limited liability corporation, located at 2701 E Grauwylar Road, Irving, TX 75061, SPX Holdings, LLC (“**SPX Holdings**”) a Nevada limited liability company, located at 3003 Pennsylvania Ave, Santa Monica, California 90404, and the individuals Parvinder Chadha, Sharon Gill Chadha, and Xin Cheng (collectively, the “**Inventors**”). Rule 14, SPX Holdings, and the Inventors agree and undertake as follows:

Witnesseth

WHEREAS, Rule 14, SPX Holdings, and the Inventors acknowledge that the Patents, as defined below, were initially conveyed, transferred, and assigned to Rule 14;

WHEREAS, Rule 14, SPX Holdings, and the Inventors acknowledge that the Patents were conveyed, transferred, and assigned to SPX Holdings on March 18, 2022;

NOW, THEREFORE, in consideration of the agreements made herein, and of the mutual benefits to be derived hereby, SPX Holdings desires to convey, transfer, and assign to Rule 14 the Patents, and have agreed to execute and deliver this Agreement, for recording with the United States Patent and Trademark Office;

Rule 14, SPX Holdings, and the Inventors as such hereto agree as follows:

Terms and Conditions

1. Definitions

1.1 “**Patents**” means the patents listed on Schedule A attached hereto.

2. Assignment

2.1 For good and valuable consideration of the sum of one dollar (\$1.00), the receipt and sufficiency of which are hereby acknowledged, SPX Holdings hereby irrevocably conveys, transfers, and assigns to Rule 14, and Rule 14 hereby accepts, all of SPX Holdings’ rights, title, and interest in and to the following:

- (a) the Patents;
- (b) all rights of any kind whatsoever of SPX Holdings accruing under any of the foregoing provided by applicable law of any jurisdiction, by international treaties and conventions, and otherwise throughout the world;
- (c) any and all royalties, fees, income, payments, and other proceeds now or hereafter due or payable with respect to any and all of the foregoing; and
- (d) any and all claims and causes of action with respect to any of the foregoing, whether accruing on or after the date hereof, including all rights to and claims for damages, restitution, and injunctive and other legal and equitable relief for present and future infringement, misappropriation, violation, misuse, breach, or default, with the

right but no obligation to sue for such legal and equitable relief and to collect, or otherwise recover, any such damages.

3. Acknowledgements

3.1 Rule 14, SPX Holdings, and the Inventors acknowledge that, pursuant to the June 19, 2013 ASSIGNMENT executed by the Inventors, the Inventors conveyed, transferred, and assigned the Patents to Rule 14 as of their respective dates of issuance, and conveyed, transferred, and assigned the applications which would issue as the Continuation Patents as of their filing dates.

3.2 Rule 14, SPX Holdings, and the Inventors acknowledge that, pursuant to the March 18, 2022 PATENT ASSIGNMENT AGREEMENT between Rule 14 and SPX Holdings, Rule 14 conveyed, transferred, and assigned the Patents to SPX Holdings as of March 18, 2022.

3.3 Rule 14, SPX Holdings, and the Inventors acknowledge that the March 18, 2022 PATENT ASSIGNMENT AGREEMENT between the Inventors and SPX Holdings does not signify that the Patents were owned by the Inventors as of March 18, 2022.

4. Recordation and Further Actions

4.1 SPX Holdings and the Inventors hereby authorizes the Commissioner for Patents in the United States Patent and Trademark Office to record and register this Patent Assignment upon request by Rule 14. Following the date hereof, upon Rule 14's reasonable request, SPX Holdings and the Inventors shall take such steps and actions, and provide such cooperation and assistance to Rule 14 and its successors, assigns, and legal representatives, including the execution and delivery of any affidavits, declarations, oaths, exhibits, assignments, powers of attorney, or other documents, as may be necessary to effect, evidence, or perfect the assignment of the Patents to Rule 14, or any assignee or successor thereto.

5. Miscellaneous

5.1 Counterparts. This Assignment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed one and the same agreement. A signed copy of this Assignment delivered by facsimile, e-mail, or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Assignment.

5.2 Successors and Assignments. This Assignment Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

5.3 Governing Law. This Patent Assignment and any claim, controversy, dispute, or cause of action (whether in contract, tort, or otherwise) based upon, arising out of, or relating to this Assignment Agreement and the transactions contemplated hereby shall be governed by, and construed in accordance with, the laws of the United States and the State of Nevada, without giving effect to any choice or conflict of law provision or rule (whether of the State of Nevada or any other jurisdiction).

5.4 Severability. If any one or more of the provisions contained in this Agreement shall be invalid, illegal or unenforceable in any respect under any law applicable there, the validity,

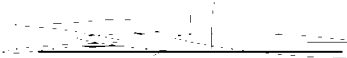
legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

5.5 This Agreement supersedes any and all oral or written agreements and understandings previously made between the parties relating to the subject matter hereof. The headings of Sections of this Agreement are for convenience of reference only and shall not define or limit the provisions hereof.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, Rule 14, SPX Holdings, and the Inventors have duly executed and delivered this Agreement as of the date first set forth above.

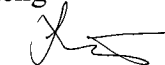
Sharon Gill Chadha

By: 

Sharon Gill Chadha

Date: September 4, 2023

Xin Cheng

By: 

Xen Cheng

Date: September 4, 2023

Parvinder Chadha

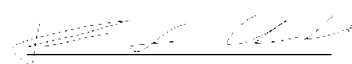
By: 

Parvinder Chadha

Date: September 4, 2023

AGREED TO AND ACCEPTED

Rule 14 LLC

By: 

Name: Parvinder Chadha

Title: Managing Member

Date: September 4, 2023

SPX Holdings LLC

By: 

Name: Parvinder Chadha

Title: Managing Member

Date: September 4, 2023

SCHEDULE A
PATENTS

Title	Jurisdiction	Patent Number	Issue Date
Real-Time and Adaptive Data Mining	US	9,229,977	01/05/2016
Real-Time and Adaptive Data Mining	US	10,102,257	10/16/2018
Real-Time and Adaptive Data Mining	US	10,108,713	10/23/2018
Real-Time and Adaptive Data Mining	US	10,114,871	10/30/2018
Real-Time and Adaptive Data Mining	US	10,108,678	10/23/2018
Real-Time and Adaptive Data Mining	US	10,114,872	10/30/2018
Real-Time and Adaptive Data Mining	US	10,120,911	11/06/2018
Real-Time and Adaptive Data Mining	US	10,114,899	10/30/2018
Real-Time and Adaptive Data Mining	US	10,108,679	10/23/2018
Real-Time and Adaptive Data Mining	US	10,114,870	10/30/2018
Real-Time and Adaptive Data Mining	US	10,108,680	10/23/2018
Real-Time and Adaptive Data Mining	US	10,108,723	10/23/2018
Real-Time and Adaptive Data Mining	US	10,108,724	10/23/2018
Real-Time and Adaptive Data Mining	US	10,198,516	02/05/2019
Real-Time and Adaptive Data Mining	US	10,108,725	10/23/2018
Real-Time and Adaptive Data Mining	US	11,048,712	06/29/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7232559

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SHARON GILL CHADHA	03/18/2022
XIN CHENG	03/18/2022
PARVINDER CHADHA	03/18/2022
RECEIVING PARTY DATA	
Name:	SPX HOLDINGS LLC
Street Address:	3003 PENNSYLVANIA AVE
City:	SANTA MONICA
State/Country:	CALIFORNIA
Postal Code:	90404
PROPERTY NUMBERS Total: 1	
Property Type	Number
Patent Number:	11048712
CORRESPONDENCE DATA	
Fax Number:	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Email:	gabdul@greenbaumlaw.com
Correspondent Name:	GHATUL ABDUL
Address Line 1:	75 LIVINGSTON AVENUE
Address Line 4:	ROSELAND, NEW JERSEY 07102
NAME OF SUBMITTER:	GHATUL ABDUL QAYUM
SIGNATURE:	/ga/
DATE SIGNED:	03/18/2022
This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 1	
source=11048712#page1.tif	

(12) **United States Patent**
Chadha et al.

(10) **Patent No.:** **US 11,048,712 B2**
(45) **Date of Patent:** ***Jun. 29, 2021**

(54) **REAL-TIME AND ADAPTIVE DATA MINING**

G06F 16/951 (2019.01)

(71) Applicant: **Rule 14**, Santa Monica, CA (US)

(52) **U.S. Cl.**

(72) Inventors: **Sharon Gill Chadha**, Santa Monica, CA (US); **Xin Cheng**, San Diego, CA (US); **Parvinder Chadha**, Santa Monica, CA (US)

CPC **G06F 16/2465** (2019.01); **G06F 16/2365** (2019.01); **G06F 16/951** (2019.01); **G06F 16/954** (2019.01); **G06F 2216/03** (2013.01)

(73) Assignee: **Rule 14**, Santa Monica, CA (US)

(58) **Field of Classification Search**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 229 days.

CPC .. **G06F 16/2465**; **G06F 16/954**; **G06F 16/951**; **G06F 16/2365**; **G06F 2216/03**
USPC 707/722
See application file for complete search history.

This patent is subject to a terminal disclaimer.

(56) **References Cited**

(21) Appl. No.: **16/228,218**

U.S. PATENT DOCUMENTS

(22) Filed: **Dec. 20, 2018**

6,260,041 B1 * 7/2001 Gonzalez G06F 16/00
2011/0047161 A1 * 2/2011 Myaeng G06F 16/3338
707/740
2012/0158739 A1 * 6/2012 Ah-Pine G06K 9/6293
707/748

(65) **Prior Publication Data**

* cited by examiner

US 2019/0121808 A1 Apr. 25, 2019

Related U.S. Application Data

Primary Examiner — Michael Pham

(63) Continuation-in-part of application No. 14/960,316, filed on Dec. 4, 2015, now Pat. No. 10,198,516, which is a continuation-in-part of application No. 13/928,313, filed on Jun. 26, 2013, now Pat. No. 9,229,977.

(74) *Attorney, Agent, or Firm* — Seyfarth Shaw LLP; Puya Partow-Navid

(60) Provisional application No. 61/679,024, filed on Aug. 2, 2012.

(57)

ABSTRACT

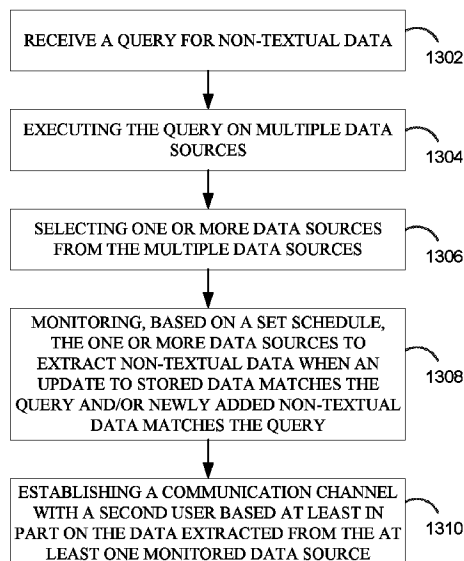
A method of analyzing data is presented. The method includes receiving a query based for non-textual data, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is performed to monitor for matches to the query.

(51) **Int. Cl.**

G06F 16/2458 (2019.01)
G06F 16/954 (2019.01)

20 Claims, 16 Drawing Sheets

1200 ↗





APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/228,218	06/29/2021	11048712	79531-000049	3189

98275 7590 06/09/2021
Seyfarth Shaw LLP
2029 Century Park East, Suite 3500
Los Angeles, CA 90067-3063

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 229 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):

Sharon Gill Chadha, Santa Monica, CA;
Rule 14, Santa Monica, CA;
Xin Cheng, San Diego, CA;
Parvinder Chadha, Santa Monica, 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.

Document Description: Issue Fee Payment (PTO-85B)

Issue Fee Transmittal Form

Application Number	Filing Date	First Named Inventor	Atty. Docket No.	Confirmation No.
16228218	20-Dec-2018	Sharon Chadha	79531-000049	3189

TITLE OF INVENTION :

REAL-TIME AND ADAPTIVE DATA MINING

Entity Status	Application Type	Art Unit	Class - Subclass	EXAMINER
Small	Utility under 35 USC 111(a)	2167	722000	MICHAEL PHAM
Issue Fee Due	Publication Due	Total Fee(s) Due	Date Due	Prev. Paid Fee
\$600	\$0	\$600	01-Jun-2021	\$0

1.Change of Correspondence Address and/or Indication Of Fee Address (37 CFR 1.33 & 1.363)

Current Correspondence Address:	Current Indicated Fee Address :
98275 Seyfarth Shaw LLP 2029 Century Park East, Suite 3500 Los Angeles CA 90067-3063 UNITED STATES 310 277 7200 laxipdocket@seyfarth.com	
☐ Change of correspondence address requested, system generated AIA/122-EFS form attached	☐ Fee Address indication requested, system generated SB/47-EFS form attached

2.Entity Status

Change in Entity Status

- ☐ Applicant certifying micro entity status; system generated Micro Entity certification form attached. See 37 CFR 1.29.
Note: Absent a valid certification of micro entity status, issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
If this box is checked, you will be prompted to choose a micro entity status on the gross income basis (37 CFR 1.29(a)) or the institution of higher education basis (37 CFR 1.29(d)), and make the applicable certification online.
- ☒ Applicant asserting small entity status. See 37 CFR 1.27.
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.
- ☐ Applicant changing to regular undiscounted fee status.
Note: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

Document Description: Issue Fee Payment (PTO-85B)

3.The Following Fee(s) Are Submitted:

☒ Issue Fee

☐ I authorize USPTO to apply my previously paid issue fee to the current fees due

☐ Publication Fee

☐ The Director is hereby authorized to apply my previously paid issue fee to the current fee due and to charge deficient fees to Deposit Account Number _____

☐ Advance Order - # of copies _____

☒ If in **addition** to the payment of the issue fee amount submitted with this form, there are any discrepancies in any amount(s) due, the Director is authorized to charge any deficiency, or credit any overpayment, to Deposit Account Number 191351.
The **issue fee must be submitted** with this form. **If payment of the issue fee does not accompany this form, checking this box and providing a deposit account number will NOT be effective to satisfy full payment of the fee(s) due.**

4.Firm and/or Attorney Names To Be Printed

NOTE: If no name is listed, no name will be printed
For printing on the patent front page, list to be displayed as entered

1. SEYFARTH SHAW LLP
2. PUYA PARTOW-NAVID
3.

5.Assignee Name(s) and Residence Data To Be Printed

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

Name	City	State	Country	Category
Rule 14	Santa Monica	CALIFORNIA	united states	corporation

6.Signature

I certify, in accordance with 37 CFR 1.4(d)(4) that I am an attorney or agent registered to practice before the Patent and Trademark Office who has filed and has been granted power of attorney in this application. I also certify that this Fee(s) Transmittal form is being transmitted to the USPTO via EFS-WEB on the date indicated below.

Signature	/Puya PartowNavid/	Date	06-01-2021
Name	Puya Partow-Navid	Registration Number	59657

Electronic Patent Application Fee Transmittal				
Application Number:		16228218		
Filing Date:		20-Dec-2018		
Title of Invention:		REAL-TIME AND ADAPTIVE DATA MINING		
First Named Inventor/Applicant Name:		Sharon Gill Chadha		
Filer:		Puya Partow-Navid/Eva Salazar		
Attorney Docket Number:		79531-000049		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY APPL ISSUE FEE	2501	1	600	600
PUBL. FEE- EARLY, VOLUNTARY, OR NORMAL	1504	1	0	0
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				600

Electronic Acknowledgement Receipt

EFS ID:	42862009
Application Number:	16228218
International Application Number:	
Confirmation Number:	3189
Title of Invention:	REAL-TIME AND ADAPTIVE DATA MINING
First Named Inventor/Applicant Name:	Sharon Gill Chadha
Customer Number:	98275
Filer:	Puya Partow-Navid/Eva Salazar
Filer Authorized By:	Puya Partow-Navid
Attorney Docket Number:	79531-000049
Receipt Date:	01-JUN-2021
Filing Date:	20-DEC-2018
Time Stamp:	13:41:48
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 600
RAM confirmation Number	E202161D41452023
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)	Web85b.pdf	46130	no	2
			35da91073f532d806c9f3a87abc92fe7c0ee8486		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	32125	no	2
			28420d5d2cddb283c98d096b8aa22798c4fcf2e2a		
Warnings:					
Information:					
Total Files Size (in bytes):			78255		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

98275 7590 03/01/2021
Seyfarth Shaw LLP
2029 Century Park East, Suite 3500
Los Angeles, CA 90067-3063

EXAMINER

PHAM, MICHAEL

ART UNIT

PAPER NUMBER

2167

DATE MAILED: 03/01/2021

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/228,218	12/20/2018	Sharon Gill Chadha	79531-000049	3189

TITLE OF INVENTION: REAL-TIME AND ADAPTIVE DATA MINING

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$600	\$0.00	\$0.00	\$600	06/01/2021

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
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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.

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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.

98275 7590 03/01/2021
Seyfarth Shaw LLP
2029 Century Park East, Suite 3500
Los Angeles, CA 90067-3063

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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.
16/228,218	12/20/2018	Sharon Gill Chadha	79531-000049	3189

TITLE OF INVENTION: REAL-TIME AND ADAPTIVE DATA MINING

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$600	\$0.00	\$0.00	\$600	06/01/2021

EXAMINER	ART UNIT	CLASS-SUBCLASS
PHAM, MICHAEL	2167	707-722000

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,

1 _____

(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.

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 ☐ Government4a. 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. _____



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/228,218	12/20/2018	Sharon Gill Chadha	79531-000049	3189
98275	7590	03/01/2021	EXAMINER	
Seyfarth Shaw LLP			PHAM, MICHAEL	
2029 Century Park East, Suite 3500				
Los Angeles, CA 90067-3063			ART UNIT	PAPER NUMBER
			2167	
DATE MAILED: 03/01/2021				

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. 16/228,218	Applicant(s) Chadha et al.	
	Examiner MICHAEL PHAM	Art Unit 2167	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 1/5/2021.
☐ 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 1-20. 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 _____.
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/MICHAEL PHAM/
Primary Examiner, Art Unit 2167

Notice of Pre-AIA or AIA Status

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

Terminal Disclaimer

2. The terminal disclaimer filed on 1/5/21 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of **U.S. Patent No. 9229977, U.S. Patent No. 10102257, U.S. Patent No. 10108678, U.S. Patent No. 10108679, U.S. Patent No. 10108680 , U.S. Patent No. 10108713, U.S. Patent No. 10108723, U.S. Patent No. 10108724, U.S. Patent No. 10108725, U.S. Patent No. 10114870, U.S. Patent No. 10114871, U.S. Patent No. 10114872, U.S. Patent No. 10114899, U.S. Patent No. 10120911, and U.S. Patent No. 10198516** have been reviewed and is accepted. The terminal disclaimer has been recorded.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Puya Partow-Navid (reg. 59657) on 2/22/2021.

4. **In the claims:**

Please replace claim 16 filed 1/5/2021 with currently amended claim 16 below.

All other claims are as filed on 1/5/2021.

Claim 16(currently amended): The apparatus of claim 10 ~~method of claim 1~~, in which the query comprises at least a natural language query, a non-textual data query, or a combination thereof.

Allowable Subject Matter

5. Claims 1-20 allowed.
6. The following is a statement of reasons for the indication of allowable subject matter.

With respect to the independent claim 1, the prior art of record, single or in combination, does not teach or fairly suggest the step of:

“...the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds;

monitoring, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and

establishing a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.”

, in combination with the other claimed limitations.

With respect to the independent claim 10, the prior art of record, single or in combination, does not teach or fairly suggest the step of:

“...to select at least one data source from the plurality of data sources, the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds;

to monitor, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and

to establish a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.”

, in combination with the other claimed limitations.

With respect to the independent claim 19, the prior art of record, single or in combination, does not teach or fairly suggest the step of:

“...program code to select at least one data source from the plurality of data sources, the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds;

program code to monitor, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and

program code to establish a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.”

, in combination with the other claimed limitations.

Dependent claims 2-9, 11-18, and 20 are allowed for being dependent to an already allowed claim.

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

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

U.S. Patent Application Publication 20110047161 discloses expanding queries based on document topic category analysis. However, as discussed in the parent of this application (US 9229977), US Patent Application Publication 20110047161 does not disclose "...the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds; monitoring, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and establishing a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source."

U.S. Patent 6260041 discloses monitoring queries when data is updated. U.S. Patent 6260041, appears to be the most relevant reference currently able to be found. The data

resources of US Patent 6260041 appear to be provided in a client file as a listing of resources and are sequentially or in parallel accessed to monitor for updated data, see col. 3 lines 54-61; however, US Patent 6260041 does not disclose “the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds”.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PHAM whose telephone number is (571)272-3924. The examiner can normally be reached on M-F 11-730pm Eastern.

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, Robert Beausoliel can be reached on 571-272-3645. 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

Art Unit: 2167

the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL PHAM/

Primary Examiner, Art Unit 2167

Notice of References Cited	Application/Control No. 16/228,218		Applicant(s)/Patent Under Reexamination Chadha et al.	
	Examiner MICHAEL PHAM		Art Unit 2167	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-6260041-B1	07-2001	Gonzalez; Carlos M.	G06F16/00	1/1
	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)
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	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. 16/228,218	Applicant(s)/Patent Under Reexamination Chadha et al.
	Examiner MICHAEL PHAM	Art Unit 2167

CPC - Searched*		
Symbol	Date	Examiner
G06F16/2465, G06F16/954, G06F16/951, G06F16/2365,G06F2216/03	02/21/2021	MP

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
707	722	02/21/2021	

* 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
13928313	02/21/2021	MP
npl (google, google scholar, ip.com)	02/21/2021	MP
east	02/21/2021	MP
G06F16/2465, G06F16/954, G06F16/951, G06F16/2365,G06F2216/03, 707/722 see search history printouts	02/21/2021	MP

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
G06F	16/2465, 16/954, 16/951, 16/2365,2216/03	02/21/2021	MP
707	722	02/21/2021	MP

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Issue Classification 	Application/Control No. 16/228,218	Applicant(s)/Patent Under Reexamination Chadha et al.
	Examiner MICHAEL PHAM	Art Unit 2167

CPC						
Symbol					Type	Version
G06F	/	16	/	2465	F	2019-01-01
G06F	/	16	/	2365	I	2019-01-01
G06F	/	16	/	954	I	2019-01-01
G06F	/	16	/	951	I	2019-01-01
G06F	/	2216	/	03	A	2013-01-01

CPC Combination Sets							
Symbol				Type	Set	Ranking	Version
	/		/				

NONE	Total Claims Allowed:		
(Assistant Examiner)	(Date)	20	
/MICHAEL PHAM/ Primary Examiner, Art Unit 2167	23 February 2021	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	13

Issue Classification 	Application/Control No. 16/228,218	Applicant(s)/Patent Under Reexamination Chadha et al.
	Examiner MICHAEL PHAM	Art Unit 2167

INTERNATIONAL CLASSIFICATION			
CLAIMED			
G06F	/	16	/ 2458
G06F	/	16	/ 954
G06F	/	16	/ 951
G06F	/	16	/ 23
NON-CLAIMED			
	/		/

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS
707	722

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

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/MICHAEL PHAM/ Primary Examiner, Art Unit 2167 (Primary Examiner)	23 February 2021 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 13

Issue Classification 	Application/Control No. 16/228,218	Applicant(s)/Patent Under Reexamination Chadha et al.
	Examiner MICHAEL PHAM	Art Unit 2167

☒ 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	19	19										
2	2	11	11	20	20										
3	3	12	12												
4	4	13	13												
5	5	14	14												
6	6	15	15												
7	7	16	16												
8	8	17	17												
9	9	18	18												

NONE	Total Claims Allowed:	
(Assistant Examiner)	(Date)	20
/MICHAEL PHAM/ Primary Examiner, Art Unit 2167	23 February 2021	O.G. Print Claim(s)
(Primary Examiner)	(Date)	1
		O.G. Print Figure
		13

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Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

6,256,178 results

Top 1500 results

1. Extraction and Representation method of State Vector of Sensing Data of Internet of Things

The present invention discloses an extraction and representation method of state vector of sensing data of internet of Things, extracting and representing sensing sampling data of state vector through the method, receiving sampling data and performing vector extraction on sampling data, sampling...

CURRENT ASSIGNEES: BEIJING UNIV TECH
US20190192245 | US APPLICATIONS | 05-JUL-2018

2. Data processing method, device, equipment and storage medium

The invention discloses a data processing method, which comprises the following steps: when detecting that the source database data is updated, collecting an update log when the source database is updated, analyzing the update log and extracting update data in the update log; when the update data is...

CURRENT ASSIGNEES: PING AN TECH SHENZHEN CO LTD
CN111414416A | CHINA APPLICATIONS | 14-JUL-2020

3. Data processing method, data processing device and data processing system for data query server

The invention discloses a data processing method, a data processing device and a data processing system for a data query server and belongs to the technical field of databases. Updated data are extracted from at least two database tables through a data loading server, and then inserted to the data...

CURRENT ASSIGNEES: UNION BROTHER MACHINERY CO LTD
CN106649804A | CHINA APPLICATIONS | 10-MAY-2017

4. Method and device for transmitting information

The invention discloses a method and a device for transmitting information. The method comprises the steps of receiving inquiry requests of users, and outputting inquired inquiry results to the users; storing inquiry results corresponding to user operations if users operate received inquiry results;...

CURRENT ASSIGNEES: TENCENT INC
CN103209199A | CHINA APPLICATIONS | 17-JUL-2013

5. Business intelligence data extraction on demand

Methods and apparatus, including computer program products, for business intelligence data extraction on demand. In general, a first request is sent from a first system to a second system for a query of a data structure to include indications of updates at the second system to data at both the first...

CURRENT ASSIGNEES: SAP SE
US8407193 | US PATENTS | 26-MAR-2013

6. Inquiry sentence execution device, inquiry sentence execution method, and inquiry sentence execution program

PROBLEM TO BE SOLVED: To improve the execution performance of a query statement and to refer to appropriate data based on the content of the query statement. When a database management device 2 includes an acquisition unit 224 for acquiring a query statement corresponding to a database and an...

Relevance

VIEW

0 Results

42 Results

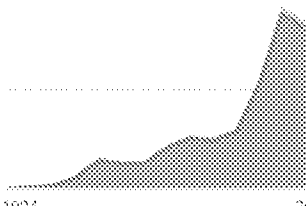
1458 Results

0 Results

0 Results

Publication Date

VIEW



First Cur Assignees by Relevance

VIEW

BEIJING UNIV TECH (5)

PING AN TECH SHENZHEN ... (9)

UNION BROTHER MACHIN... (1)

TENCENT INC (1)

SAP SE (8)

KDDI CORP (1)

FUJITSU LTD (29)

...TIANJIN XIAOHANG (1)

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

34/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

3,638,904 results

Top 1500 results

1. Method and device for transmitting information

The invention discloses a method and a device for transmitting information. The method comprises the steps of receiving inquiry requests of users, and outputting inquired inquiry results to the users; storing inquiry results corresponding to user operations if users operate received inquiry results;...

CURRENT ASSIGNEES: TENCENT INC
CN103209199A | CHINA APPLICATIONS | 17-JUL-2013

2. Business intelligence data extraction on demand

Methods and apparatus, including computer program products, for business intelligence data extraction on demand. In general, a first request is sent from a first system to a second system for a query of a data structure to include indications of updates at the second system to data at both the first...

CURRENT ASSIGNEES: SAP SE
US8407183 | US PATENTS | 26-MAR-2013

3. Business intelligence data extraction on demand

Methods and apparatus, including computer program products, for business intelligence data extraction on demand. In general, a first request is sent from a first system to a second system for a query of a data structure to include indications of updates at the second system to data at both the first...

CURRENT ASSIGNEES: SAP SE
US20090164486 | US APPLICATIONS | 25-JUN-2009

4. Data extracting method and data extracting device

When a data extracting device extracts data (21) including data on pages A1, B1, C1 from a database, an extracting section acquires processing exclusion for only page A1 through an exclusion control section, reads records contained in page A1, cancels the processing exclusion for page A1, and...

CURRENT ASSIGNEES: FUJITSU LTD
WO2004023308A1 | WIPO APPLICATIONS | 18-MAR-2004

5. Data merging techniques

Disclosed is a system for performing online data queries. The system for performing online data queries is a distributed computer system with a plurality of server nodes each fully redundant and capable of processing a user query request. Each server node includes a data query cache and other caches...

CURRENT ASSIGNEES: GOOGLE LLC
US6874241 | US PATENTS | 16-APR-2002

6. A kind of method and information carrying means of transmission information

The invention discloses a kind of methods and information carrying means of transmission information. The method of the transmission information includes : User's inquiry request is received, the query result that inquiry is obtained is exported to user ; If user operates the query result of reception,...

CURRENT ASSIGNEES: SHENZHEN TENCENT COMPUTER SYS. CO. LTD
CN103209199E | CHINA PATENTS | 28-SEP-2018

Relevance

VIEW

0 Results

19 Results

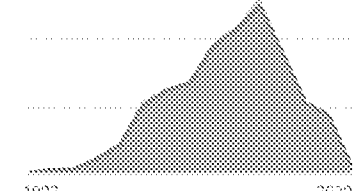
1481 Results

0 Results

0 Results

Publication Date

VIEW



First Cur Assignees by Relevance

VIEW

TENCENT INC (1)

SAP SE (13)

FUJITSU LTD (46)

GOOGLE LLC (29)

SHENZHEN TENCENT COM... (1)

NEC CHINA CO LTD (2)

NEC CORP (24)

NEC COMMUNICATIONS, INC. (1)

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

35/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Discover

pat

select data source query a...

+ 0 mods

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

14,318,923 results

Top 1500 results

1. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes receiving a query bas...
expanding search terms of the query, executing the query on one or more data sourc...
data source selected from the one or more data sources. The monitoring is performe...

CURRENT ASSIGNEES: RULE
US20190121808 | US APPLICATIONS | 25-APR-2019

2. Business intelligence data extraction on demand

Methods and apparatus, including computer program products, for business intellige...
demand, in general, a first request is sent from a first system to a second system for a query or a data structure...
to include indications of updates at the second system to data at both the first...

CURRENT ASSIGNEES: SAP SE
US8407183 | US PATENTS | 26-MAR-2013

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Methods and apparatus, including computer program products, for business intelligence data extraction on...
demand, in general, a first request is sent from a first system to a second system for a query of a data structure...
to include indications of updates at the second system to data at both the first...

CURRENT ASSIGNEES: SAP SE
US20090164486 | US APPLICATIONS | 25-JUN-2009

4. Efficient data extraction by a remote application

A query controller accesses a cache comprising information related to data that is newly added to a database,...
responsive to detecting a data extraction application is ready to query the database for at least one data...
extraction rule. The information is added to the cache for each new data event...

CURRENT ASSIGNEES: GLOBALFOUNDRIES INC
US20130031112 | US APPLICATIONS | 31-JAN-2013

5. Efficient data extraction by a remote application

A query controller accesses a cache comprising information related to data that is newly added to a database,...
responsive to detecting a data extraction application is ready to query the database for at least one data...
extraction rule. The information is added to the cache for each new data event...

CURRENT ASSIGNEES: GLOBALFOUNDRIES INC
US20130144851 | US APPLICATIONS | 06-JUN-2013

6. Efficient data extraction by a remote application

A query controller accesses a cache comprising information related to data that is newly added to a database,...
responsive to detecting a data extraction application is ready to query the database for at least one data...
extraction rule. The information is added to the cache for each new data event...

CURRENT ASSIGNEES: GLOBALFOUNDRIES INC
US8412721 | US PATENTS | 02-APR-2013

Modify Query

Replace Main Concept

More Like This

Less Like This

Document

Relevance

VIEW

0 Results

50 Results

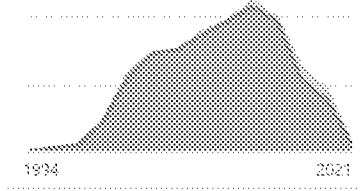
1440 Results

0 Results

0 Results

Publication Date

VIEW



First Cur Assignees by Relevance

VIEW

RULE (33)

SAP SE (26)

GLOBALFOUNDRIES INC (5)

GOOGLE LLC (31)

TELDURAOGEVIN SP F (1)

TELDURADGEVIN SP F (6)

TEILHARD TECH INC (5)

GLOBAL SOFTWARE LLC (13)

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

36/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Discover

pat

select data source query a...

+ 1 mod

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

1,652,256 results

Top 1500 results

1. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085806 | US APPLICATIONS | 24-MAR-2016

2. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US10108713 | US PATENTS | 23-OCT-2018

3. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085818 | US APPLICATIONS | 24-MAR-2016

4. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085822 | US APPLICATIONS | 24-MAR-2016

5. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085825 | US APPLICATIONS | 24-MAR-2016

6. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US10114899 | US PATENTS | 30-OCT-2018

Relevance

VIEW

0 Results

1138 Results

302 Results

0 Results

0 Results

Publication Date

VIEW

1938

2021

First Cur Assignees by Relevance

VIEW

RULE (32)

MICROSOFT TECH LICENSI... (67)

SRI INTL INC (11)

THOMSON REUTERS GRC L... (7)

VISA INTL SRVC ASSOC (31)

FAITH PATRICK (1)

MINDAGENT (2)

DECAINTRA LLC, LLC (4)

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

37/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Discover

pat

select data source query a...

+ 1 mod

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

CURRENT ASSIGNEES: MICROSOFT TECH LICENSING LLC
US6601025 | US PATENTS | 29-JUL-2003

33. Information retrieval by natural language querying

A natural language information querying system includes an indexing facility configured to automatically generate indices of updated textual sources based on one or more predefined grammars and a database coupled to the indexing facility to store the indices for subsequent searching.

CURRENT ASSIGNEES: MICROSOFT TECH LICENSING LLC
US20030078766 | US APPLICATIONS | 24-APR-2003

34. Machine learning-based relationship association and related discovery and search engines

Systems and techniques for determining relationships and association significance between entities are disclosed. The systems and techniques automatically identify supply chain relationships between companies based on unstructured text corpora. The system combines Machine Learning models to identify...

CURRENT ASSIGNEES: THOMSON REUTERS GRC INC
US20180082183 | US APPLICATIONS | 22-MAR-2018

35. Machine learning-based relationship association and related discovery and search engines

Systems and techniques for determining relationships and association significance between entities are disclosed. The systems and techniques automatically identify supply chain relationships between companies based on unstructured text corpora. The system combines Machine Learning models to identify...

CURRENT ASSIGNEES: THOMSON REUTERS GRC INC
US10303999 | US PATENTS | 28-MAY-2019

36. Machine learning-based relationship association and related discovery and search engines

Systems and techniques for determining relationships and association significance between entities are disclosed. The systems and techniques automatically identify supply chain relationships between companies based on unstructured text corpora. The system combines Machine Learning models to identify...

CURRENT ASSIGNEES: THOMSON REUTERS GRC INC
US20190354544 | US APPLICATIONS | 21-NOV-2019

37. Multi-source, multi-dimensional, cross-entry, multimedia merchant analytics database platform apparatuses, methods and systems

The MULTI-SOURCE, MULTI-DIMENSIONAL, CROSS-ENTITY, MULTIMEDIA MERCHANT ANALYTICS DATABASE PLATFORM APPARATUSES, METHODS AND SYSTEMS ("MDB") transform data aggregated from various computer resources using MDB components into updated entity profiles and/or social graphs. In one implementation, the MDB...

CURRENT ASSIGNEES: VISA INTL SRVC ASSOC
US9830328 | US PATENTS | 28-NOV-2017

38. Multi-source, multi-dimensional, cross-entity, multimedia centralized personal

Information system, data storage, and address, name, contact information, methods, and systems

Top 1500 results

Relevance

VIEW

0 Results

390 Results

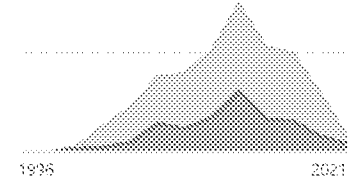
510 Results

0 Results

0 Results

Publication Date

VIEW



First Cur Assignees by Relevance

VIEW

RULE (31)

MICROSOFT TECH LICENS... (74)

THOMSON REUTERS GRC I... (7)

VISA INTL SRVC ASSOC (23)

FAITH PATRICK (1)

MINDAGENT (2)

REFINITIV US LLC (1)

GENERAL ELECTRIC CO. (3)

More Visuals

Result #1

PREV

NEXT

Discover

pat

select data source query a...

+ 1 mod

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

database: text in the queries is associated considering different phrases; the phrases in turn are matched against candidate phrases to determine best matching answers responsive to the user's...

CURRENT ASSIGNEES: NUANCE COMM INC

US7657424 | US PATENTS | 02-FEB-2010

44. Weighted term ranking for on-line query tool

Disclosed is a system for performing online data queries. The system for performing online data queries is a distributed computer system with a plurality of server nodes each fully redundant and capable of processing a user query request. Each server node includes a data query cache and other caches...

CURRENT ASSIGNEES: APPLE INC

US7047242 | US PATENTS | 16-MAY-2006

45. Locating, filtering, matching macro-context from indexed database for searching context where micro-context relevant to textual input by user

A data extraction tool is provided for cataloging information in an information source for searching by a user. The tool mines information from the information source and organizes the information, or the locations of that information, within a database. A user may then query the tool for a desired...

CURRENT ASSIGNEES: GOOGLE LLC

US7013300 | US PATENTS | 14-MAR-2006

46. Document-centric system with auto-completion

An information space is created using a document. Entities from the document and its information space are used to create a database of entities. An auto-completion system uses contextual information surrounding a fragment from the document to formulate a query. The query is used to identify a set...

CURRENT ASSIGNEES: IH HLDG 1 LLC

US6620075 | US PATENTS | 16-NOV-2004

47. Database access system

An improved human user computer interface system, wherein a user characteristic or set of characteristics, such as demographic profile or societal "role", is employed to define a scope or domain of operation. The operation itself may be a database search, to interactively define a taxonomic context...

CURRENT ASSIGNEES: RELATIVITY DISPLAY LLC

US8070362 | US PATENTS | 05-FEB-2013

48. System for automatically generating queries

A method, system and article of manufacture therefor, are disclosed for automatically generating a query from document content.

CURRENT ASSIGNEES: IH HLDG 1 LLC

US7769757 | US PATENTS | 03-AUG-2010

49. Methods and computer readable media for determining a macro-context based on a micro-context of a user search

A data extraction tool is provided for cataloging information in an information source for searching by a user. The tool mines information from the information source and organizes the information, or the locations of that information, within a database. A user may then query the tool for a desired...

Result #1

PREV

NEXT

Top 1500 results

Relevance

VIEW

0 Results

413 Results

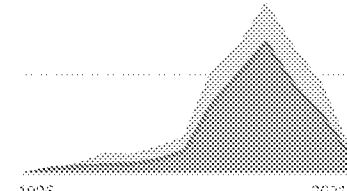
1587 Results

0 Results

0 Results

Publication Date

VIEW



First Cur Assignees by Relevance

VIEW

RULE (15)

MICROSOFT TECH LICENS... (115)

THOMSON REUTERS GRC L... (5)

VISA INTL SRVC ASSOC (8)

MINDAGENT (1)

GOOGLE LLC (145)

LOCKHEED MARTIN CORP (6)

GENERAL ELECTRIC CO (4)

More Visuals

https://iq.ip.com/discover

39/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Discover

pat

select data source query a...

+ 1 mod

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

109,447 results

Top 1500 results

1. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
EP3014414A2 | EPO APPLICATIONS | 04-MAY-2016

2. Multi-source, multi-dimensional, cross-entity, multimedia database platform apparatuses, methods and systems

The MULTI-SOURCE, MULTI-DIMENSIONAL, CROSS-ENTITY, MULTIMEDIA DATABASE PLATFORM APPARATUSES, METHODS AND SYSTEMS (MMCDB) transform data aggregated from various computer resources using MMCDB components into updated entity profiles and/or social graphs. MMCDB aggregates data records including search...

CURRENT ASSIGNEES: VISA INTL SRVC ASSOC
EP2810242A1 | EPO APPLICATIONS | 10-DEC-2014

3. Systems and methods for facilitating the gathering of open source intelligence

Systems and methods (e.g., utilities) for use in providing automated, lightweight collection of online, open source data which may be content-based to reduce website source bias. In one aspect, a utility is disclosed for use in extracting content of interest from at least one website or other online...

CURRENT ASSIGNEES: LOCKHEED MARTIN CORP
EP2560111A2 | EPO APPLICATIONS | 20-FEB-2013

4. Text mining analysis and output system

A natural language authoring system that organizes technical, financial, legal and market information into Point of View specific analytical, visual and narrative decision-support content. The expert system transforms a user's point of view into a tailored narrative and/or visualization report....

CURRENT ASSIGNEES: PERCEPTION PARTNERS INC
EP2788907A2 | EPO APPLICATIONS | 15-OCT-2014

5. Social match platform apparatuses, methods and systems

The SOCIAL MATCH PLATFORM APPARATUSES, METHODS AND SYSTEMS ("SMP") transforms platform join requests, social network info, and SMP network info inputs via SMP components NJ, JIP, CIP, OP, CN-SGU and CN-UPSOG into job info, candidate info, offer info, and social meetup info outputs. A job information...

CURRENT ASSIGNEES: MONSTER WORLDWIDE INC
EP2724309A2 | EPO APPLICATIONS | 30-APR-2014

6. Search engine method and apparatus

An interactive method for searching a database (12) to produce a refined results space (34), the method comprising: analyzing for search criteria (22), searching said database (12) using said search criteria (22) to obtain an initial result space (34), and obtaining user input (20) to restrict said...

CURRENT ASSIGNEES: CELEBROS INC
EP2804041A1 | EPO APPLICATIONS | 03-APR-2016

Relevance

VIEW

0 Results

52 Results

1448 Results

0 Results

0 Results

Publication Date

VIEW

First Cur Assignees by Relevance

VIEW

RULE (1)

VISA INTL SRVC ASSOC (4)

LOCKHEED MARTIN CORP (2)

PERCEPTION PARTNERS INC (1)

MONSTER WORLDWIDE INC (1)

CELEBROS INC (1)

KONINKL PHILIPS NV (29)

DELAWARE ELECTRIC INC (2)

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

40/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Discover

pat

select data source query a...

+ 1 mod

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

109,447 results

Top 1500 results

1. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
EP3014414A2 | EPO APPLICATIONS | 04-MAY-2016

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The MULTI-SOURCE, MULTI-DIMENSIONAL, CROSS-ENTITY, MULTIMEDIA DATABASE PLATFORM APPARATUSES, METHODS AND SYSTEMS (MMCDB) transform data aggregated from various computer resources using MMCDB components into updated entity profiles and/or social graphs. MMCDB aggregates data records including search...

CURRENT ASSIGNEES: VISA INTL SRVC ASSOC
EP2810242A1 | EPO APPLICATIONS | 10-DEC-2014

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Systems and methods (e.g., utilities) for use in providing automated, lightweight collection of online, open source data which may be content-based to reduce website source bias. In one aspect, a utility is disclosed for use in extracting content of interest from at least one website or other online...

CURRENT ASSIGNEES: LOCKHEED MARTIN CORP
EP2560111A2 | EPO APPLICATIONS | 20-FEB-2013

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A natural language authoring system that organizes technical, financial, legal and market information into Point of View specific analytical, visual and narrative decision-support content. The expert system transforms a user's point of view into a tailored narrative and/or visualization report....

CURRENT ASSIGNEES: PERCEPTION PARTNERS INC
EP2788907A2 | EPO APPLICATIONS | 15-OCT-2014

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CURRENT ASSIGNEES: MONSTER WORLDWIDE INC
EP2724309A2 | EPO APPLICATIONS | 30-APR-2014

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An interactive method for searching a database (12) to produce a refined results space (34), the method comprising: analyzing for search criteria (22), searching said database (12) using said search criteria (22) to obtain an initial result space (34), and obtaining user input (20) to restrict said...

CURRENT ASSIGNEES: CELEBROS INC
EP2804041A1 | EPO APPLICATIONS | 03-APR-2016

Relevance

VIEW

0 Results

52 Results

1448 Results

0 Results

0 Results

Publication Date

VIEW

First Cur Assignees by Relevance

VIEW

RULE (1)

VISA INTL SRVC ASSOC (4)

LOCKHEED MARTIN CORP (2)

PERCEPTION PARTNERS INC (1)

MONSTER WORLDWIDE INC (1)

CELEBROS INC (1)

KONINKL PHILIPS NV (29)

DELAWARE ELECTRIC INC (2)

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

41/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Discover

pat

select data source query a...

+ 1 mod

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

109,447 results

Top 1500 results

1. Real-time and adaptive data mining

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CURRENT ASSIGNEES: RULE
EP3014414A2 | EPO APPLICATIONS | 04-MAY-2016

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CURRENT ASSIGNEES: VISA INTL SRVC ASSOC
EP2810242A1 | EPO APPLICATIONS | 10-DEC-2014

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CURRENT ASSIGNEES: LOCKHEED MARTIN CORP
EP2560111A2 | EPO APPLICATIONS | 20-FEB-2013

4. Text mining analysis and output system

A natural language authoring system that organizes technical, financial, legal and market information into Point of View specific analytical, visual and narrative decision-support content. The expert system transforms a user's point of view into a tailored narrative and/or visualization report....

CURRENT ASSIGNEES: PERCEPTION PARTNERS INC
EP2788907A2 | EPO APPLICATIONS | 15-OCT-2014

5. Social match platform apparatuses, methods and systems

The SOCIAL MATCH PLATFORM APPARATUSES, METHODS AND SYSTEMS ("SMP") transforms platform join requests, social network info, and SMP network info inputs via SMP components NJ, JIP, CIP, OP, CN-SGU and CN-UPSOG into job info, candidate info, offer info, and social meetup info outputs. A job information...

CURRENT ASSIGNEES: MONSTER WORLDWIDE INC
EP2724309A2 | EPO APPLICATIONS | 30-APR-2014

6. Search engine method and apparatus

An interactive method for searching a database (12) to produce a refined results space (34), the method comprising: analyzing for search criteria (22), searching said database (12) using said search criteria (22) to obtain an initial result space (34), and obtaining user input (20) to restrict said...

CURRENT ASSIGNEES: CELEBROS INC
EP2804041A1 | EPO APPLICATIONS | 03-APR-2016

Relevance

VIEW

0 Results

52 Results

1448 Results

0 Results

0 Results

Publication Date

VIEW

First Cur Assignees by Relevance

VIEW

RULE (1)

VISA INTL SRVC ASSOC (4)

LOCKHEED MARTIN CORP (2)

PERCEPTION PARTNERS INC (1)

MONSTER WORLDWIDE INC (1)

CELEBROS INC (1)

KONINKL PHILIPS NV (29)

DELAWARE ELECTRIC INC (2)

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

42/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Discover

NPL

select data source query a...

+ 1 mod

0 filters

STIC

Visuals

Query

Results

0 Selected

Relevance

None

1 - 50

1,038,649 results

Top 1500 results

1. Exploring a Framework for Identity and Attribute Linking across Heterogeneous Data Systems

Online-activity-generated digital traces provide opportunities for novel services and unique insights as demonstrated in, for example, research on mining software repositories. The inability to link these traces within and among systems, such as Twitter, GitHub, or Reddit, inhibit the advances in...

IEEE Xplore | IEEE CONFERENCES | 01-MAY-2016 | 2016 IEEE/ACM 2nd International Workshop on Big Data Software Engineering (BIGDSE) (Page(s): 19-25)

2. Towards Knowledge Discovery in Big Data

Analytics-as-a-Service (AaaS) has become indispensable because it affords stakeholders to discover knowledge in Big Data. Previously, data stored in data warehouses follow some schema and standardization which leads to efficient data mining. However, the Big Data epoch has witnessed the rise of...

IEEE Xplore | IEEE CONFERENCES | 01-APR-2014 | 2014 IEEE 18th International Symposium on Service Oriented System Engineering (Page(s): 181-191)

3. Infusing social data analytics into Future Internet applications for manufacturing

Today, a new age of engagement and collaboration has emerged with the proliferation of usergenerated content in social networks and generally the Web 2.0, rendering it particularly difficult for enterprises to monitor and act upon all content following conventional data mining methodologies. In this...

IEEE Xplore | IEEE CONFERENCES | 01-NOV-2014 | 2014 IEEE/ACS 11th International Conference on Computer Systems and Applications (AICCSA) (Page(s): 515-522)

4. Social Media Intelligence and Learning Environment: an Open Source Framework for Social Media Data Collection, Analysis and Curation

Social Media Intelligence and Learning Environment (SMILE) is an open source framework bringing cutting-edge computational models on social media data to social science researchers and students with any level of programming and computation expertise. Many existing social media analysis tools require...

IEEE Xplore | IEEE CONFERENCES | 01-SEP-2019 | 2019 15th International Conference on eScience (eScience) (Page(s): 252-261)

5. Knowledge Discovery from Social Media using Big Data provided Sentiment Analysis (SoMABIT)

In todays competitive business world, being aware of customer needs and market-oriented production is a key success factor for industries. To this aim, the use of efficient analytic algorithms ensures a better understanding of customer feedback and improves the next generation of products...

200105986 | ARXIV.ORG | 16-JAN-2020

6. Query expansion techniques for information retrieval: A survey

With the ever increasing size of the web, relevant information extraction on the Internet with a query formed by a few keywords has become a big challenge. Query Expansion (QE) plays a crucial role in improving searches on the Internet. Here, the user's initial query is reformulated by adding...

170806247 | ARXIV.ORG | 01-AUG-2017 | Information Processing & Management, 2019

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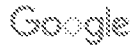
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Import data from external data sources (Power Query) - Excel

Note: The Query Editor appears when you load, edit, or create a new query using Get & Transform. To view the Query Editor without loading or editing an existing ...

help.tableau.com › current › pro › desktop › en-us › da...

How Analysis Works for Multi-table Data Sources that Use ...

The relationships between the tables affect the results of the query. ... for your data source, we recommend going to a sheet, selecting that data source, and ... Would adding multiple matching field pairs make the relationship more accurate? ... how data was being replicated and how Tableau aggregated the data to display it ...

aws.amazon.com › blogs › big-data › query-any-data-s...

Query any data source with Amazon Athena's new federated ...

Nov 26, 2019 — Federated query is a new Amazon Athena feature that enables data analysts, ... Application developers pick a data store based on the application's primary function. ... processes to validate data accuracy and consistency across systems. ... sources for quick analysis or use scheduled SQL queries to extract ...

chartio.com › docs › performance › monitoring › quer...

Data Source Query Log | Chartio Documentation

Choose one of your data sources from the list, Click Query Log. Cancel running queries. Another feature of the query log is that it allows you to monitor the duration ...

Missing: accuracy | Must include: accuracy

howto.mt.gov › Portals › Documents

Best Practices for Designing Efficient Tableau Workbooks

Jan 9, 2019 — This document has been updated to reflect the capabilities of Tableau 10. ... RDBMS vs. data extract), ... faster queries and reduces the amount of data that needs to be ... Under Workbook Performance Metrics, select Record workbook ... TabMon, is an open source cluster monitor for Tableau Server that ...

cloud.ibm.com › docs › discovery › topic-discovery-q...

Query concepts - IBM Cloud

Aug 5, 2020 — You can write natural language queries (such as "IBM Watson ... in contrast, stemming does not allow for matching on any arbitrary ... Passages are short, relevant excerpts extracted from the full documents returned by your query. ... In the Discovery Tooling, open the Manage data screen, choose the ...

help.salesforce.com › articleView › id=bi_dashboard_data...

Configure Cross-Dataset Faceting with Connected Data Sources

For each data source, select a dataset or a custom query used in the dashboard. Choose one field from the data source so that Tableau CRM can match records ...

www.oreilly.com › view › fixing-access-annoyances

3. Data, Tables, and Database Design - Fixing Access ...

In a properly designed database, new data adds rows, not fields. Then drag the primary key field from one table and drop it onto the matching foreign key ... To find out, select Tools → Options, click the Tables/Queries tab, and look in the SQL ... Finding and extracting the records that are causing the problem can be a real

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Bulletin of the Atomic Scientists

Vol. 26, No. 6 · Magazine

As General Leslie R. Groves reveals in his memoir, the selection of the state of New Mexico as the site for the wartime laboratory and the test explosion of the ...

docs.oracle.com › opera_6_6_com_help › data_extrac...

Data Extraction Query - Oracle Help Center

The Data Extraction Query screen is the starting point for creating and editing queries. When you create a new query, the Query Name field displays the default name ... Select the down arrow to choose the data source for your query. ... for Day, Month, Year, the user defines which parts of the date OPERA should match.

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Searches related to select data source query accuracy monitor updated data query match extraction

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automatically import data into excel

how to import data from website to excel 2019

tableau calculated field from two data sources

excel parse json in cell

tableau combine two dimensions from different data sources

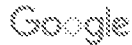
import data into excel from another excel file

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BI Query Queries User's Guide - Oregon State University

Feb 15, 2006 — BI Query lets you extract the information you need using a data model—a graphical ... ability—depending on their DBMS permissions—to update tables in the database. ... for data models, queries, results, reports, and data sources (the BI Server ... build the query, select either Match Any or Match All from the List box in the.

[www.oreilly.com](#) [view](#) [fixing-access-annoyances](#)

3. Data, Tables, and Database Design - Fixing Access ...

Jan 1, 2004 — In a properly designed database, new data adds rows, not fields. ... Then drag the primary key field from one table and drop it onto the matching foreign key ... To find out, select Tools → Options, click the Tables/Queries tab, and look in the SQL ... Finding and extracting the records that are causing the problem can be a real ...

[usc-isi-iz.github.io](#) [papers](#) [michelson08-jair](#)

Creating Relational Data from Unstructured and ...

by M Michelson · 2008 · Cited by 49 · Related articles

Mar 29, 2008 — Examples of these types of data sources are online classifieds like Craigslist? and ... technique matches the posts to the reference set accurately and efficiently ... World Wide Web that would be useful to query, but the textual data within ... to extract. Yet posts by definition are not structured or grammatical. Therefore, wrapper.

[www.kean.edu](#) [~shahrabi](#) [home](#)

CHAPTER 11:

Mar 1, 2008 — When data changes in multiple lists and all lists are not updated, this causes: means that the data contained in a database is accurate and reliable. ... extracting data from source databases, transforming or reformatting the data, and storing ... a query language that the software uses to retrieve and display records.

[docs.oracle.com](#) [server.111](#) [extract](#)

Extraction in Data Warehouses - Oracle Help Center

Feb 1, 1999 — Monitoring and Diagnosing Parallel Execution Performance ... Extraction is the operation of extracting data from a source system for further use in a ... data warehouse might be an order entry system that records all of the current order activities. ... The extraction method you should choose is highly dependent on the source ...

[www.iit.edu](#) [default](#) [files](#) [query_studio_user_manual](#)

Query Studio User Guide

May 15, 2000 — Changes to Default Data Formats for OLAP Data Sources 9 ... Our documentation includes user guides, getting started guides, new features guides, readmes, and ... The accuracy of the data returned is limited to the number of preview rows ... Click the Report Studio icon in the top right corner of the Query Studio screen.

[exceluser.com](#) [Posts](#)

Use MS Query to Treat Excel as a Relational Data Source ...

Oct 5, 2005 — When using Excel as the source of data, it's important that each of the tables be a ... Choose Data, Import External Data, New Database Query, which launches the ... To do so, place your installation disk in the appropriate drive and follow the on-screen instructions.) ... The matching field in CUST and ORD is CustNum.
Missing: extraction | Must include: extraction

[www.red-gate.com](#) [simple-talk](#) [ten-common-sql-ser...](#)

Ten Common SQL Server Reporting Services Challenges and ...

Oct 8, 2009 — There is no native control that allows you to display your data horizontally. ... so all you need to do to test it out is point it to a SQL Server 2005 data source. ... Start with a blank report and add the query as a dsCalendar data set, as shown in Figure 1. ... The updated query, allowing users to select all the available parameter ...

www.csun.edu › Project_files › ACL9_Getting_Started_G... › }

ACL Getting Started Guide - CSUN

by A Febriansyah SE · 2018

Aug 10, 2006 — Choosing the appropriate command Extracting data to a new table ACL provides access to virtually any data source, in most cases ... perform queries and data manipulation on files that would ... filter to display the matching records in the view. ... accuracy of the data and to produce control totals

support.microsoft.com › en-us › office › compare-two... › }

Compare two tables in Access and find only matching data ...

Feb 1, 2007 — In this article, learn how to compare two Access tables by using query joins, ... in another Access table that contain one or more fields with matching data. ... To compare two tables by using joins, you create a select query that includes both tables. ... In this example, you build a query that determines how recent curriculum .

Missing: extraction | Must include: extraction

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Targeted **data extraction** of the MS/MS spectra generated by **data-independent** acquisition: a new concept for consistent and **accurate** proteome analysis

LC Gillet, P Navarro, S Tate, H Röst, N Selevsek... - Molecular & Cellular ... 2012 - Elsevier

... There, the MS instrument is operated in **selected reaction monitoring** (SRM) (also called ... Also, large **selection** window widths increase the number of concurrently fragmented precursors and ... It consists of using a targeted **data extraction** strategy to **query** the acquired fragment ion ...

☆ 99 Cited by 1868 Related articles All 11 versions

GeneCards: a novel functional genomics compendium with automated **data** mining and **query** reformulation support.

M Rebhan, V Chalifa-Caspi, J Prilusky... - Bioinformatics (Oxford ... 1998 - academic.oup.com

... Figure 1); (3) Hyperlinks called 'More like this' which **retrieve** genes that are involved in ... Short descriptions of the linked page should help users **select** links more **accurately** ... Because GeneCards contains **selected** extracts from various **data sources**, the density of interesting ...

☆ 99 Cited by 411 Related articles All 15 versions

Building structured web community portals: A top-down, compositional, and incremental approach

P DeRose, W Shen, F Chen, AH Doan... - ... on Very large data ... 2007 - vidb.org

... 3. CONSTRUCTING THE ER GRAPH Let T be the initial set of **data sources** **selected** by builder B. We now describe how to **extract** and ... On the second day, B crawls the **data sources** to **retrieve** W2, then applies Pday to W2 to generate the daily ER graph ... **Select data sources** (1) ...

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Effective Web **data extraction** with standard XML technologies

J Myllymaki - Proceedings of the 10th International conference on ... 2001 - dl.acm.org

... rules are expressed as XML, an example of which is shown in Figure 1. The sample navigation rules direct GCS to **retrieve** reviews of IBM's ... <PRICE><xsl:value-of select="b"/></PRICE> ... **Data** validation is performed on the XML output of XSLT filters, not on the HTML **source** files ...

☆ 99 Cited by 288 Related articles All 25 versions

Privacy integrated **queries**: an extensible platform for privacy-preserving **data** analysis

FD McSherry - ... International Conference on Management of data, 2009 - dl.acm.org

... is fundamental to allowing analysts to write their own ad-hoc analyses, rather than **choose** from a ... The stability of **Select** is one, as each **source** record results in exactly one output record ... Join takes two **data** sets, key **selection** functions for each, and returns the list of all pairs of ...

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Extracting structured information from user **queries** with semi-supervised conditional random fields

X Li, YY Wang, A Acero - Proceedings of the 32nd International ACM ... 2009 - dl.acm.org

... To use z_t as a "prior" of y_t , we **choose** the following function form ... use tf-idf based cosine similarity and use an empirically-chosen threshold 0.75 to **select** (**query**, metadata) pairs ... The **selected queries** (presumably with product **search** intent) were further classified into 20 product ...

☆ 99 Cited by 119 Related articles All 9 versions

Using web **search query data** to **monitor** dengue epidemics: a new model for neglected tropical disease surveillance

EH Chan, V Sahai, C Conrad... - PLoS neglected tropical ... 2011 - journals.plos.org

... Several factors had to be taken into consideration in **selecting** a specific disease and country ... small changes to the list of **selected queries**, suggesting some elasticity in the **query selection** process ... reported by national ministries of health or the WHO for five **selected** countries for ...

☆ 99 Cited by 295 Related articles All 22 versions

Data quality requirements analysis and modeling

PY Wang, HB Kon, SE Madnick - ... Conference on Data ... 1993 - ieeeexplore.ieee.org

... The **data** quality administrator needs to **monitor**, control, or report on the quality of information. Users may **choose** to only **retrieve** or process information of a specific ... For example, an information clearing house for addresses of individuals may have several classes of **data** ...

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A hierarchical approach to model web **query** interfaces for web **source** integration

EC Dragut, T Kabisch, C Yu, U Leser - Proceedings of the VLDB ... , 2009 - dl.acm.org

... A crawler needs to input meaningful values into the fields of **query** interfaces to **retrieve** the **data** from Web databases [3]. We observed that a ... A **selection** list presents the user with a set of choices to **select** from ... One may **choose** to assign labels according to this prioritiza- tion ...

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Distinct sampling for highly-**accurate** answers to distinct values **queries** and event reports

PB Gibbons - VLDB, 2001 - vldb.org

... 1. initialize $\alpha := 0$, $\beta := \infty$ 2. **select** the hash function die-hash 3. do while (more rows | to scan) §
4. die-level := die-hash ... **retrieve** the count from the dummy row for | 12 ... We **choose** i uni- formly at random from $[1..\text{hashmod}-1]$ and p uniformly at random from $[0..\text{hashmod}-1]$. For any q in ...

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EC Dragut, T Kabisch, C Yu, U Leser - Proceedings of the VLDB ... , 2009 - dl.acm.org

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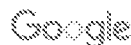
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PB Gibbons - VLDB, 2001 - vldb.org

... 1. initialize $\alpha := 0$, $\beta := \infty$ 2. **select** the hash function die-hash 3. do while (more rows λ to scan) §
4. die-level := die-hash ... **retrieve** the count from the dummy row for λ 12 ... We **choose** i uni- formly at random from $[1..\text{hashmod}-1]$ and p uniformly at random from $[0..\text{hashmod}-1]$. For any q in ...

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[www.hackensackumc.org](#) [uploads](#) [2017/02](#)

2011 Annual Report - Hackensack University Medical Center

Apr 15, 2010 -- Sharon Strater, M.D., Luis Varola, M.D., Philip Walden, M.D., Sonia Chadha, M.D., Arthur W. Chaney, Jr., M.D., R. Gill Altman, M.D., Robin Ashinoff, M.D., Anthony ...

[law.justia.com](#) [cases](#) [federal](#) [appellate-courts](#)

Hepting, et al. v. AT&T Corp., et al., No. 09-16676 ... - Justia Law

Dec 29, 2011 -- ... PETER B. COLLINS; KRIS COSTA; MARK COSTA; JULIE DAVIS; SHARON L. DAVIS; TONI DIDONA; ... J. GETTIER; JIT GILL; MIKE GILMORE; JAYSON GLEASON; MARC GOLDSTONE; TODD GRAFF; ... Chadha, 462 U.S. 919, 954 (1983).

[synapse.mskcc.org](#) [synapse](#) [people](#)

People - Synapse

Sep 15, 2011 -- SAGANTY, RUTH SHARON, Former Employee. HUMAN ONCOLOGY AND ... Singh, Jasmeet Chadha, Medicine; Assistant Attending, 17. Man, Singh, Jessica ...
Missing: gill | Must include: gill

[www.indiatoday.in](#) [...](#) [Simply Punjabi](#)

Pages from a wedding album - SUPPLEMENTS News - Issue ...

Oct 24, 2008 -- Aarthi was from Hyderabad and Abhishek Gill, 26, from Ludhiana. They met in 2000. ... Sharon Mittal met Nikhil, 28, the owner of Nik Bakers, in October 2006 as a customer. "I was planning to go ... PUNEET CHADHA, LUDHIANA, 26. PUNEET ...

[www.jeff-davis.k12.ga.us](#) [_theme](#) [files](#) [News](#)

99.. - Jeff Davis County Schools

Dec 1, 2004 -- Sharon Henry, Reuben Bennett Jr. ... daughter of Gerald and Sharon. Lewis, to ... Sharon Henry and Minister nual Address. ... 2 Gill St., Hazlehurst, GA 31539.

[www.jasna.org](#) [persuasions](#) [on-line](#) [kaplan](#)

Laurie Kaplan - Jane Austen Society of North America

by L. Kaplan · Cited by 7 · Related articles

Dec 17, 2009 -- Neither Gill nor other reviewers mentions the "modern" thrust of the production. ... Tamil-language Kandukondain Kandukondain (2000); Sharon Maguire's film of ... in Utah (2003); and Gurinder Chadha's Bollywood Bride & Prejudice (2004).

[wpsanet.org](#) [meeting](#)

2006 Albuquerque Meeting - Western Political Science ...

Oct 15, 2006 -- Section Chairs: Sharon Navarro and Rodolfo Rosales, University of Texas ... Chadha, Anita, University of Houston, Downtown ... Gill, Emily, Bradley University.

[d10k7k7mywg42z.cloudfront.net](#) [assets](#)

Names of Persons Appearing to be Owners of Abandoned ...

Jan 15, 2003 -- AHEARN SHARON A, 400 NARRAGANSETT PKWYAPT EHS, WARWICK, AHERN DAVID J, 1960 ... CHADHA RAJU, 69 HAZAEL ST, PROVIDENCE, CHADWICK EDNA ... DE LA TORRE DENIS A, 65 GILL AVE, PAWTUCKET, DE RUMI, 182 ...

www.utsouthwestern.edu › media › files › 3600-Pediatr... }

General Pediatrics - Department of Pediatrics

Sep 15, 2008 — division also continues to partner with Dr. Michelle Gill, in the Division of ...
Mandeep Chadha, M.D., Assistant Professor ... Sharon Jurdy, RNC Research ...

www.imdb.com › title › fullcredits }

I Heart Shakey (2012) - Full Cast & Crew - IMDb

Aug 7, 2010 — Sharon Kluge ... Grandma - Sam Alexander ... Mr. Ellrich ... Raminder Chadha ...
Sanjay's Father ... Eganhouse ... set dresser: Dana Gill ... lead storyboard artist.

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[en.wikipedia.org > wiki > Xincheng](https://en.wikipedia.org/wiki/Xincheng)

Xincheng - Wikipedia

Jul 17, 2007 — *Xincheng* may refer to: Contents: 1 People; 2 Places: 2.1 Mainland China; 2.2 Taiwan; 3 Art forms; 4 See also; People[edit]. Tuoba Xincheng (拓拔新成), brother ...

[cn.linkedin.com > xin-cheng-b04099...](https://cn.linkedin.com/in/xin-cheng-b04099...)

Xin Cheng - Senior Legal Counsel - Abax Global ... - 领英

上海 黄浦区 · Senior Legal Counsel · Abax Global Capital

May 5, 2011 — 上领英，在全球领先职业社交平台查看Xin Cheng的职业档案。Xin的职业档案列出了4个职位。上领英，查看Xin的完整档案，结识职场人脉和查看相似公司的 ...

[chinainsulation.en.made-in-china.com > company-XIN...](https://chinainsulation.en.made-in-china.com/company-XIN...)

Company Overview - XIN CHENG INDUSTRY MATERIAL CO ...

Jan 1, 2012 — XINCHENG INDUSTRY MATERIAL Co., Ltd. Specialize in the Electronical insulation materials in China. We devoted ourselves to a wide rang of electrical ...

Management System Certification: ISO 9000

www.xinch.com

Xincheng Scientific Industries Co., Ltd. _Others

Jun 30, 2006 — Xincheng Scientific Industries Co., Ltd. Xincheng Scientific Industries Co., Ltd. Has been under the guidance of the national famous medical teaching experts for ...
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[www.shuonland.com > property > project > detail > sh...](http://www.shuonland.com/property/project/detail/sh...)

Rui Hong Xin Cheng - Property Developments - Shui On Land

Jun 15, 2010 — The Rui Hong Xin Cheng project ("RHXC"), is located within the inner ring of Shanghai in Hongkou District (the "District"). The District, which has a long history ...

[pubmed.ncbi.nlm.nih.gov > ...](https://pubmed.ncbi.nlm.nih.gov/...)

[Professor CHENG Xin-nong: a famous acupuncture and ...

by T Huang · 2007 · Cited by 2 · Related articles

Apr 15, 2007 — Professor CHENG Xin-nong is a famous acupuncture and moxibustion scientist in our country, who is a student and teacher of the first lot with academic ...

[chinese.yabla.com > chinese-english-pinyin-dictionary](https://chinese.yabla.com/chinese-english-pinyin-dictionary)

cheng xin | Definition | Mandarin Chinese Pinyin English ...

Nov 14, 2011 — cheng xin definition at Chinese.Yabla.com, a free online dictionary with English, Mandarin Chinese, Pinyin, Strokes & Audio. Look it up now!

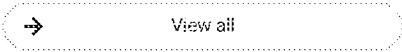
[www.bloomberg.com > company > RTS8DZ:CH](http://www.bloomberg.com/company/RTS8DZ:CH)

Jingjiang Xincheng Vehicle Parts Co Ltd - Company Profile ...

Dec 18, 2006 — Jingjiang Xincheng Vehicle Parts Co. Ltd. manufactures automobile parts. The Company researches, develops, designs, produces, and sells automotive ...

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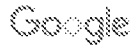
Ji-Xin Cheng Group - Boston University

Jan 14, 2007 -- 19, Cheng-Shien Liao, PhD, May 17, Biomedical Engineering, Senior Scientist, Thermo-Fisher, cksearching@gmail.com. 20, Hyeon Jeong Lee, PhD, Dec 17 ...

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Buyer, Beware! | Barron's - Wall Street Journal

Aug 25, 1997 -- ... Barry Witz and Parvinder Chadha were ponytailed promoters of penny stocks ... Witz and Chadha also liked to note that Osicom had won multimillion-dollar ...

www.wsj.com | articles 3

Trouble at Osicom | Barron's

Apr 26, 1999 -- ... the company's chief executive, Parvinder Chadha, and his longtime partner, Barry ... This led Osicom and Chadha to file a libel suit against this publication in a ...



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HOVS Ltd. - HOV Services LTD

May 2, 2011 -- Mr. Parvinder S Chadha Mr. Chadha brings over 37 years of experience in building businesses in the Americas, Europe and Asia. - Mr. Sunil Rajadhyaksha Mr.

www.hovsltd.com/management_profile

HOVS Ltd. - HOV Services LTD

May 5, 2011 -- EOD & Management. Parvinder S Chadha. Mr. Chadha brings over 37 years of experience in building businesses in the Americas, Europe and Asia.

www.barrons.com > articles > 5

Always a Bridesmaid | Barron's

Sep 13, 1999 — Back in 1997, Barron's reported on the checkered careers of Osicom chief executive Parvinder Chadha and his longtime partner, A. Barry Witz. (Buyer, Beware!

[www.bloomberg.com › profile › company](#) **3**

HandsOn3 LLC - Company Profile and News - Bloomberg ...

Aug 10, 2011 -- Executives: Name/Title: Parvinder S Chadha "Par", CEO/Chief Invsmt...

www.goodreturns.in > ... > HGV Services Ltd. > Quotes \$

History of HOV Services Ltd., Company - Goodreturns

Apr 17, 2006 -- 100% of the membership interest of which is owned by Parvinder S. Chadha and his family members and managed by a seven member management team of

economictimes.indiatimes.com | Markets : Stocks 5

HOV Services History | HOV Services Information - The ...

Apr 17, 2006 -- 100% of the membership interest of which is owned by Parvinder S. Chadha and his family members and managed by a seven member management team of

in.linkedin.com › vikramchadha1 {

vikram chadha - Relationship manager - Citibank NA | LinkedIn

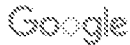
New Delhi Area, India · Relationship manager · Citibank NA

May 15, 2006 — View vikram chadha's profile on LinkedIn, the world's largest professional community. vikram has 1 job listed on their profile. See the ... Parvinder Jit Singh.

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rule 14 monitor data update new query


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[Settings](#)[Tools](#)
[Before Aug 2, 2012](#) [All results](#) [Clear](#)

docs.oracle.com › server.111 › strms_rumon {

Monitoring Rules - Oracle Help Center

Aug 10, 2007 — You query the following data dictionary views to display all rules in the rule sets ... 'OracleStreamsName' FORMAT A14 COLUMN STREAMS_TYPE HEADING ...

link.springer.com › pdf › bbm:978-1-4302-2462-4 › 1.pdf {

Solutions to the Exercises

Dec 29, 2000 — Use the AdventureWorks2008 database to complete this exercise. 1. Write a query using the Sales.SpecialOffer table. Display the difference between the MinQty ...

www.oreilly.com › view › fixing-access-annoyances {

3. Data, Tables, and Database Design - Fixing Access ...

Jan 1, 2004 — Identify the main topic headings for your data, and create tables for each distinct topic. That's where the other data normalization rules come in. ... For instance, if you create a separate table for orders, you need a way to track ... query to an update query by choosing Query --> Update Query, and enter the ... Figure 3-14.

www.pluralsight.com › blog › it-ops › microsoft-access... {

5 Examples of Microsoft Access Date Functions | Pluralsight

Jun 29, 2012 — Prevent Data Entry for Dates After Today's Date (Intermediate) ... In the bottom portion of the screen, under Table Properties, click inside the Validation Rule. Create a query using the Access Query Designer (Create tab > click Query Design). ... A Data Macro will automatically update a LastUpdated field to the current date ...

support.microsoft.com › en-us › office › create-a-make... {

Create a make table query - Access - Microsoft Support

Nov 10, 2006 — For more information about update queries, see the article Create and run an update query. ... A make table query retrieves data from one or more tables, and then loads the result set into a ... Each table appears as a window in the upper section of the query designer. ... to run the query and display the results in a datasheet.

Missing: 14 | Must include: 14

support.microsoft.com › en-us › office › create-edit-or... {

Create, edit or delete a relationship - Access - Microsoft Support

Nov 6, 2006 — Keep your data in Access organized by creating relationships between tables. ... When you use related tables in a query, the relationship lets Access ... For more information about referential integrity, see the section Enforce Referential Integrity. ... the plus sign (+) next to a table name to display the list of fields in that table.

Missing: 14 | Must include: 14

www.ibm.com › Home › SSEQVQ_8.1.10 {

IBM Knowledge Center

Jan 8, 2010 — Use this command to display information about storage rules that are defined for ... Query STGRULE * rule_name Format = Standard Format = Standard Detailed ... If a storage tiering rule is based on state, only inactive data that meets the age ... Active: Yes Storage Type. Cloud Maximum Processes: 8 Start Time: 14:20:15 ...

www.postgresql.org › docs › rules-update {

Documentation: 8.2: Rules on INSERT, UPDATE ... - PostgreSQL

Aug 11, 2003 — Rules that are defined on INSERT, UPDATE, and DELETE are significantly different from the view. ... Instead they create zero or more new query trees and can throw away the original one. ... si7 | 6 | All | Tue Oct 20 16:14:45 1998 MET DST (1 row) ... Now you can fill the table shoe lace arrive with the data from the parts list

Missing: monitor | Must include: monitor

servicenowguru.com > System Definition {

Assignment Rule Lookup - ServiceNow Guru

Apr 19, 2010 — The update set is designed to allow you to populate assignment rule lookup records for ... to create an assignment rule that can query that table and return assignments based on the information found. ... //Get the assigned_to ID and its display value and put them on the form ... Mark Stanger July 14, 2010 at 12:30 am - Reply.

People also ask {

Will an update query add new records?

Can a form displays data from queries?

Can we run update query on view?

How do you update existing data in SQL?

Feedback

docs.openclinica.com > ... > Submit Data {

Notes and Discrepancies | OpenClinica Reference Guide

Dec 22, 2011 — OpenClinica can also automatically generate Discrepancy Notes when Rules run. ... To update the other properties, you add new child Notes. ... For example, a Data Manager might create a Query Discrepancy Note to ask a Clinical ... A Monitor, Data Manager or Study Director then reviews the proposed resolution and ...

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L28	6	first second user connection (select\$3 or choos\$3) (source or database) (monitor\$3 or listen\$3)(updat\$3 or new) match\$3 quer\$3 and @ad<"20120802"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/21 03:28
L27	0	(select\$3 or choos\$3) (source or database) (monitor\$3 or listen\$3)(updat\$3 or new) match\$3 quer\$3 and @ad<"20120802" and (chadha-sharon or cheng-xin or chadha-parvinder).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/21 03:28
L22	0	((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and (select\$3 or choos\$3) (source or database) (monitor\$3 or listen\$3)(updat\$3 or new) match\$3 quer\$3 and @ad<"20120802" and (chadha-sharon or cheng-xin or chadha-parvinder).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/21 03:23
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L19	33	((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and (select\$3 or choos\$3) (source or database) monitor\$3 (updat\$3 or new) match\$3 quer\$3 and @ad<"20120802"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/21 02:52
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		choos\$3) (source or database) monitor\$3 (updat\$3 or new) match\$3 quer\$3	JPO; DERWENT; IBM_TDB			
L17	699	((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and (select\$3 or choos\$3) (source or database) monitor\$3 (updat\$3 or new)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/21 02:50
L16	22,662	((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and (select\$3 or choos\$3) (source or database)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/21 02:48
L15	1,319	(G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. and 707/722.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/21 02:47
L14	85,289	(G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/21 02:47
L13	1	"20100100845"	US-PGPUB; USPAT	OR	OFF	2021/02/21 02:42
L12	14	2010/0100845	US-PGPUB; USPAT	OR	OFF	2021/02/21 02:42
L11	0	"201010000845"	US-PGPUB; USPAT	OR	OFF	2021/02/21 02:41
L10	0	"201001000845"	US-PGPUB; USPAT	OR	OFF	2021/02/21 02:41
L9	167,704	"707".clas.	US-PGPUB; USPAT	OR	OFF	2021/02/21 02:37
L8	0	furqan-khan.in.	US-PGPUB; USPAT	OR	OFF	2021/02/21 02:37
L7	0	"20101000845"	US-PGPUB; USPAT	OR	OFF	2021/02/21 02:37
L6	0	"2010100845"	US-PGPUB; USPAT	OR	OFF	2021/02/21 02:37

L5	0	"2010100845"	USPAT	OR	OFF	2021/02/21 02:37
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L3	0	("20101000845").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/02/21 02:36
S2557	1,066	monitor\$3 quer\$3 updat\$3 data and "707".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/20 13:33
S2556	7,268	monitor\$3 quer\$3 updat\$3 data	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/20 13:32
S2555	2	"20110047161"	US-PGPUB; USPAT	OR	OFF	2021/02/20 13:06
S2554	1	"20110047161"	USPAT	OR	OFF	2021/02/20 13:06
S2553	1	"rule 14".as.	US-PGPUB; USPAT	OR	OFF	2021/02/19 17:39
S2552	1	S2535 AND ((G06F17/30672 OR G06F17/30442 OR G06F17/30796).CPC. or 707/765.ccls.)	US-PGPUB; USPAT	SAME	OFF	2021/02/19 17:39
S2551	0	S2535 AND ((G06F17/30672 OR G06F17/30442 OR G06F17/30796).CPC.)	US-PGPUB; USPAT	SAME	OFF	2021/02/19 17:39
S2550	0	(chadha-sharon or cheng-xin or chadha-parvinder).in. and @ad<"20120802" and "707".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/19 17:39
S2549	0	(chadha-sharon or cheng-xin or chadha-parvinder).in. and @pd<"20120802" and "707".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	SAME	OFF	2021/02/19 17:38

			DERWENT; IBM_TDB			
S2548	0	(chadha-sharon or cheng-xin or chadha-parvinder).in. and @pd<"20120802" and quer\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/19 17:38
S2547	0	(chadha-sharon or cheng-xin or chadha-parvinder).in. and @pd<"20120802" and query (resource or source) analyz\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/19 17:38
S2546	0	(chadha-sharon or cheng-xin or chadha-parvinder).in. and @pd<"20120802" and query resource analyz\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/19 17:38
S2545	0	(chadha-sharon or cheng-xin or chadha-parvinder).in. and @pd<"20120802" and query data analyz\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/19 17:38
S2544	82	(chadha-sharon or cheng-xin or chadha-parvinder).in. and @pd<"20120802"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/19 17:37
S2543	124	(chadha-sharon or cheng-xin or chadha-parvinder).in. and @ad<"20120802"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/19 17:37
S2542	1,590	(chadha-sharon or cheng-xin or chadha-parvinder).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	SAME	OFF	2021/02/19 17:37

			DERWENT; IBM_TDB			
S2541	0	quer\$3 expand\$3 analyze resource feedback	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2021/02/19 17:37
S2540	0	quer\$3 expand\$3 analyze resource feedback	US-PGPUB; USPAT	SAME	OFF	2021/02/19 17:37
S2539	0	query expand\$3 analyze resource feedback	US-PGPUB; USPAT	SAME	OFF	2021/02/19 17:36
S2538	0	query expand\$3 analyze data resource feedback	US-PGPUB; USPAT	SAME	OFF	2021/02/19 17:36
S2536	0	query topic expand\$3 analyze feedback	US-PGPUB; USPAT	SAME	OFF	2021/02/19 17:36
S2534	3,177,066	query topic expand\$3 analyze	US-PGPUB; USPAT	OR	OFF	2021/02/19 17:36
S2531	0	("("20080201339" "8078489" "8301486" "8498889").PN.").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/02/19 17:35
S2529	3	"13929283"	USPAT	OR	OFF	2021/02/19 17:35
S2527	0	("("20080201339" "8078489" "8301486" "8498889").PN.").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/02/19 17:34
S2526	2	"20090307286"	US-PGPUB; USPAT	OR	OFF	2021/01/13 12:49
S2525	1	"20090307286"	USPAT	OR	OFF	2021/01/13 12:48

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L26	0	(select\$3 or choos\$3) (source or database) (monitor\$3 or listen\$3)(updat\$3 or new) match\$3 quer\$3 and @ad<"20120802" and (chadha-sharon or cheng-xin or chadha- parvinder).in.	US- PGPUB; USPAT	SAME	OFF	2021/02/21 03:27
L25	0	((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and (chadha-sharon or cheng- xin or chadha-parvinder).in. and @ad<"20120802"	US- PGPUB; USPAT	SAME	OFF	2021/02/21 03:27

L24	29	((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and (chadha-sharon or cheng-xin or chadha-parvinder).in.	US-PGPUB; USPAT	SAME	OFF	2021/02/21 03:25
L23	0	((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and (select\$3 or choos\$3) (source or database) (monitor\$3 or listen\$3)(updat\$3 or new) match\$3 quer\$3 and @ad<"20120802" and (chadha-sharon or cheng-xin or chadha-parvinder).in.	US-PGPUB; USPAT	SAME	OFF	2021/02/21 03:23
L21	33	((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and (select\$3 or choos\$3) (source or database) (monitor\$3 or listen\$3)(updat\$3 or new) match\$3 quer\$3 and @ad<"20120802"	US-PGPUB; USPAT	SAME	OFF	2021/02/21 03:22

2/21/2021 3:37:56 AM

C:\Users\mpham1\Documents\EAST\Workspaces\13928313.wsp

Bibliographic Data

Application No: 16/228,218

Foreign Priority claimed: ☐ Yes ☒ No

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

Verified and Acknowledged: /MICHAEL PHAM/

Examiner's Signature

Initials

Title: REAL-TIME AND ADAPTIVE DATA MINING

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
12/20/2018	707	2167	79531-000049
RULE			

APPLICANTS

Rule 14, Santa Monica, CA,

INVENTORS

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Xin Cheng, San Diego, CA, UNITED STATES

Parvinder Chadha, Santa Monica, CA, UNITED STATES

CONTINUING DATA

This application is a CIP of 14960316 12/04/2015 PAT 10198516

14960316 is a CIP of 13928313 06/26/2013 PAT 9229977

13928313 has PRO of 61679024 08/02/2012

FOREIGN APPLICATIONS

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Doc Code: DIST.E.FILE Document Description: Electronic Terminal Disclaimer - Filed		PTO/SB/26 U.S. Patent and Trademark Office Department of Commerce	
Electronic Petition Request		TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT	
Application Number		16228218	
Filing Date		20-Dec-2018	
First Named Inventor		Sharon Chadha	
Attorney Docket Number		79531-000049	
Title of Invention		REAL-TIME AND ADAPTIVE DATA MINING	
☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action			
☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.			
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10108678

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☐ I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.

Applicant claims the following fee status:

☒ Small Entity

☐ Micro Entity

☐ Regular Undiscounted

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.

THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:

☒ An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

Registration Number 59657

☐ A sole inventor

☐ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application

☐ A joint inventor; all of whom are signing this request

Signature

/Puya Partow-Navid/

Name

Puya Partow-Navid

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

Electronic Patent Application Fee Transmittal

Application Number:	16228218			
Filing Date:	20-Dec-2018			
Title of Invention:	REAL-TIME AND ADAPTIVE DATA MINING			
First Named Inventor/Applicant Name:	Sharon Gill Chadha			
Filer:	Puya Partow-Navid/Eva Salazar			
Attorney Docket Number:	79531-000049			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	2814	1	170	170
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				170

Doc Code: DISQ.E.FILE

Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 16228218

Filing Date: 20-Dec-2018

Applicant/Patent under Reexamination: Chadha

Electronic Terminal Disclaimer filed on January 5, 2021

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt

EFS ID:	41561978
Application Number:	16228218
International Application Number:	
Confirmation Number:	3189
Title of Invention:	REAL-TIME AND ADAPTIVE DATA MINING
First Named Inventor/Applicant Name:	Sharon Gill Chadha
Customer Number:	98275
Filer:	Puya Partow-Navid/Eva Salazar
Filer Authorized By:	Puya Partow-Navid
Attorney Docket Number:	79531-000049
Receipt Date:	05-JAN-2021
Filing Date:	20-DEC-2018
Time Stamp:	17:45:21
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 170
RAM confirmation Number	E202115H45191767
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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer-Filed (Electronic)	eTerminal-Disclaimer.pdf	38629	no	3
			4994b91907954943b7277fc7a6b7e459fa21d669		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30383	no	2
			97a1090498bc07eb7d52f127f78c75720e563526		
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Total Files Size (in bytes):			69012		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Sharon Gill CHADHA et al.	Customer No.: 98275
Application No.: 16/228,218	Art Unit: 2167
Filed: December 20, 2018	Confirmation No.: 3189
For: REAL-TIME AND ADAPTIVE DATA MINING	Examiner: MICHAEL PHAM

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

REPLY UNDER 37 C.F.R. 1.111

Dear Commissioner:

In response to the Office Action dated October 6, 2020, reconsideration and further examination of the above-identified application are respectfully requested based on the following:

Claims begin on page 2 of this paper.

Remarks begin on page 6 of this paper.

Listing of Claims:

The listing of the claims is provided for the convenience of the Examiner. No claims have been amended.

Listing of Claims:

1. (Original) A method of analyzing data, comprising:
receiving, from a first user, a query for non-textual data;
expanding search terms of the query;
executing the query on a plurality of data sources;
selecting at least one data source from the plurality of data sources, the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds;
monitoring, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and
establishing a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.
2. (Original) The method of claim 1, further comprising:
analyzing the extracted non-textual data; and
receiving feedback from the user based at least in part on the established communication channel.
3. (Original) The method of claim 2, further comprising visualizing at least the extracted non-textual data, the analyzed non-textual data, or a combination thereof.
4. (Original) The method of claim 1, in which expanding the query comprises expanding the search terms to include at least misspellings, synonyms, sub-topics, antonyms, or a combination thereof.

5. (Original) The method of claim 1, further comprising refining the search terms based at least in part on the executed query, and in which the monitoring is performed to monitor for matches to a refined query.
6. (Original) The method of claim 1, in which the plurality of data sources include open-source data sources that are publically available and closed-source data sources that are not publically accessible.
7. (Original) The method of claim 1, in which the query comprises at least a natural language query, a non-textual data query, or a combination thereof.
8. (Original) The method of claim 1, in which the non-textual data comprises at least one of an image, audio, a video, or a combination thereof.
9. (Original) The method of claim 1, in which the monitoring comprises deploying extractors to each of specific data source, a number of extractors being dynamic based at least in part on a traffic volume of each specific data source.
10. (Original) An apparatus for analyzing data, comprising:
 - a memory; and
 - at least one processor coupled to the memory, the at least one processor configured:
 - to receive, from a first user, a query for non-textual data;
 - to expand search terms of the query;
 - to execute the query on a plurality of data sources;
 - to select at least one data source from the plurality of data sources, the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds;
 - to monitor, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and

to establish a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.

11. (Original) The apparatus of claim 10, in which the at least one processor is further configured:
 - to analyze the extracted non-textual data; and
 - to receive feedback from the user based at least in part on the established communication channel.
12. (Original) The apparatus of claim 11, in which the at least one processor is further configured to visualize at least the extracted non-textual data, the analyzed non-textual data, or a combination thereof.
13. (Original) The apparatus of claim 10, in which expanding the query comprises expanding the search terms to include at least misspellings, synonyms, sub-topics, antonyms, or a combination thereof.
14. (Original) The apparatus of claim 10, in which the at least one processor is further configured to refine the search terms based at least in part on the executed query, and in which the monitoring is performed to monitor for matches to a refined query.
15. (Original) The apparatus of claim 10, in which the plurality of data sources include open-source data sources that are publically available and closed-source data sources that are not publically accessible.
16. (Original) The method of claim 1, in which the query comprises at least a natural language query, a non-textual data query, or a combination thereof.
17. (Original) The apparatus of claim 10, in which the non-textual data comprises at least one of an image, audio, a video, or a combination thereof.

18. (Original) The apparatus of claim 10, in which the at least one processor is further configured to monitor by deploying extractors to each of specific data source, a number of extractors being dynamic based at least in part on a traffic volume of each specific data source.

19. (Original) A non-transitory computer-readable medium having program code recorded thereon for analyzing data, the program code executed by a processor and comprising:

- program code to receive, from a first user, a query for non-textual data;

- program code to expand search terms of the query;

- program code to execute the query on a plurality of data sources;

- program code to select at least one data source from the plurality of data sources, the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds;

- program code to monitor, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and

- program code to establish a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.

20. (Original) The non-transitory computer-readable medium of claim 19, in which the at least one processor is further configured:

- to analyze the extracted non-textual data; and

- to receive feedback from the user based at least in part on the established communication channel.

REMARKS

In response to the Office Action dated October 6, 2020, the Office Action's claim rejections have been considered. Claims 1-20 are pending. No amendments are presented. A listing of the claims is provided for reference. Applicants respectfully traverse all rejections of all pending claims and earnestly solicit allowance of these claims.

Obviousness-Type Double Patenting Rejection

Claims 1-20 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 9,229,977. Claims 1-20 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 1-20 of U.S. Patent No. 9,229,977. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 6 and 14 of U.S. Patent No. 10,102,257. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 5 of U.S. Patent No. 10,108,678. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10,108,679. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10,108,680. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 5 of U.S. Patent No. 10,108,713. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 2 of U.S. Patent No. 10,108,723. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10,108,724. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 4 of U.S. Patent No. 10,108,725. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 4 of U.S. Patent No. 10,114,870. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 4 of U.S. Patent No. 10,114,871. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10,114,872. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10,114,899. Claims 1, 10, and 19 are rejected on the ground of

nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10,120,911. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10,198,516.

Applicants are filing an executed Terminal Disclaimer to disclaim the terminal part of any patent granted on the present application that would extend beyond the expiration date of U.S. Patent No. 9,229,977, U.S. Patent No. 10,102,257, U.S. Patent No. 10,108,678, U.S. Patent No. 10,108,679, U.S. Patent No. 10,108,680, U.S. Patent No. 10,108,713, U.S. Patent No. 10,108,723, U.S. Patent No. 10,108,724, U.S. Patent No. 10,108,725, U.S. Patent No. 10,114,870, U.S. Patent No. 10,114,871, U.S. Patent No. 10,114,872, U.S. Patent No. 10,114,899, U.S. Patent No. 10,120,911, and U.S. Patent No. 10,198,516 subject to exceptions provided in the Terminal Disclaimer. By such filing, applicants make no admissions as to the propriety of the rejections of claims 1-20 under the judicially created doctrine of obviousness-type double patenting. Rather, applicants are filing the attached Terminal Disclaimer merely to obtain early allowance of the claims of the present application. Accordingly, applicants request reconsideration and withdrawal of the rejections of claims 1-20 under the judicially created doctrine of obviousness-type double patenting.

CONCLUSION

The absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments above may not be exhaustive, there may be other reasons for patentability of any or all claims that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment or cancellation of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment or cancellation.

In light of the amendments and remarks, applicants submit that the claims are in condition for allowance and respectfully request a notice to this effect. Should the Examiner have any questions, please call the undersigned at the phone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is submitted. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 19-1351 and please credit any excess fees to such deposit account.

Dated: January 5, 2021

Respectfully submitted,

By: / Puya Partow-Navid/
Puya Partow-Navid, Reg. No. 59,657
Attorney for Applicants

Seyfarth Shaw LLP
2029 Century Park East, Suite 3500
Los Angeles, CA 90067-3021
Direct Dial (310) 201-1550
Facsimile (310) 201-5219

Electronic Acknowledgement Receipt

EFS ID:	41561531
Application Number:	16228218
International Application Number:	
Confirmation Number:	3189
Title of Invention:	REAL-TIME AND ADAPTIVE DATA MINING
First Named Inventor/Applicant Name:	Sharon Gill Chadha
Customer Number:	98275
Filer:	Puya Partow-Navid/Eva Salazar
Filer Authorized By:	Puya Partow-Navid
Attorney Docket Number:	79531-000049
Receipt Date:	05-JAN-2021
Filing Date:	20-DEC-2018
Time Stamp:	17:42:24
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		79531-000049_OAR_AsFiled_5 January2021.pdf	153609 ddec9922fee603c101f7cf19bc19655046eb 9d67	yes	8

Multipart Description/PDF files in .zip description			
Document Description	Start	End	
Amendment/Req. Reconsideration-After Non-Final Reject	1	1	
Claims	2	5	
Applicant Arguments/Remarks Made in an Amendment	6	8	

Warnings:

Information:

Total Files Size (in bytes):	153609
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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.

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.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 16/228,218		Filing Date 12/20/2018		☐ To be Mailed	
ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO									
APPLICATION AS FILED - PART I									
		(Column 1)			(Column 2)				
FOR		NUMBER FILED		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), (l), 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 \$100 =			
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =		*		x \$460 =			
☐ 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	01/05/2021	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	x \$100 =		0	
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0	x \$480 =		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".						/FREDERICK E BRISCOE/			
*** 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.
16/228,218	12/20/2018	Sharon Gill Chadha	79531-000049	3189
98275	7590	10/06/2020		
Seyfarth Shaw LLP 2029 Century Park East, Suite 3500 Los Angeles, CA 90067-3063			EXAMINER PHAM, MICHAEL	
			ART UNIT	PAPER NUMBER
			2167	
			NOTIFICATION DATE	DELIVERY MODE
			10/06/2020	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):

laxipdocket@seyfarth.com

Notice of Pre-AIA or AIA Status

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

Double Patenting

2. 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 § 2146 *et seq.* 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.

3. Claims 1-20 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 1-20 of U.S. Patent No. 9229977. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claims 1-7 are anticipated by Claims 1-7 of 9229977.

Claim 8 is rejected on the ground of nonstatutory double patenting as being unpatentable over claim 7 of U.S. Patent No. 9229977 in view of US Patent Application 20120158739 by Ah-Pine et. al. (hereafter Ah-Pine). Ah-Pine discloses “the non-textual data comprises at least one of an image, audio, a video, or combination thereof”, see 0004 of Ah-Pine, where it discloses non-textual digital objects, wherein digital objects are audio, video, and image files. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied image, audio, video, or combination thereof for non-textual data based on the disclosure Ah-Pine for the purpose of querying and retrieving those objects.

Claims 9-16 are anticipated by claims 9-16 of 9229977.

Claim 17 is rejected on the ground of nonstatutory double patenting as being unpatentable over claim 7 of U.S. Patent No. 9229977 in view of US Patent Application 20120158739 by Ah-Pine et. al. (hereafter Ah-Pine). Ah-Pine discloses “the non-textual data

comprises at least one of an image, audio, a video, or combination thereof”, see 0004 of Ah-Pine, where it discloses non-textual digital objects, wherein digital objects are audio, video, and image files. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have to have applied image, audio, video, or combination thereof for non-textual data based on the disclosure Ah-Pine for the purpose of querying and retrieving those objects.

Claims 18-20 are anticipated by claims 18-20 of 9229977.

4. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 and 14 of U.S. Patent No. 10102257. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 6 of 10102257.

Claim 10 is anticipated by claim 14 of 10102257.

Claim 19 is anticipated by claim 6 of 10102257.

5. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 5 of U.S. Patent No. 10108678. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 5 of 10108678.

Claim 10 is anticipated by claim 5 of 10108678.

Claim 19 is anticipated by claim 5 of 10108678.

6. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10108679. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 6 of 10108679.

Claim 10 is anticipated by claim 6 of 10108679.

Claim 19 is anticipated by claim 6 of 10108679.

7. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10108680. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 6 of 10108680.

Claim 10 is anticipated by claim 6 of 10108680.

Claim 19 is anticipated by claim 6 of 10108680.

8. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 5 of U.S. Patent No. 10108713. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 5 of 10108713.

Claim 10 is anticipated by claim 5 of 10108713.

Claim 19 is anticipated by claim 5 of 10108713.

9. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 2 of U.S. Patent No. 10108723. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 2 of 10108723.

Claim 10 is anticipated by claim 2 of 10108723.

Claim 19 is anticipated by claim 2 of 10108723.

10. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10108724. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 6 of **10108724**.

Claim 10 is anticipated by claim 6 of **10108724**.

Claim 19 is anticipated by claim 6 of **10108724**.

11. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 4 of U.S. Patent No. 10108725. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 4 of **10108725**.

Claim 10 is anticipated by claim 4 of **10108725**.

Claim 19 is anticipated by claim 4 of **10108725**.

12. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 4 of U.S. Patent No. 10114870. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 4 of **10114870**.

Claim 10 is anticipated by claim 4 of **10114870**.

Claim 19 is anticipated by claim 4 of **10114870**.

13. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 4 of U.S. Patent No. 10114871. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 4 of **10114871**.

Claim 10 is anticipated by claim 4 of **10114871**.

Claim 19 is anticipated by claim 4 of **10114871**.

14. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10114872. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 6 of **10114872**.

Claim 10 is anticipated by claim 6 of **10114872**.

Claim 19 is anticipated by claim 6 of **10114872**.

15. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10114899. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 6 of **10114899**.

Claim 10 is anticipated by claim 6 of **10114899**.

Claim 19 is anticipated by claim 6 of **10114899**.

16. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10120911. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 6 of **10120911**.

Claim 10 is anticipated by claim 6 of **10120911**.

Claim 19 is anticipated by claim 6 of **10120911**.

17. Claims 1, 10, and 19 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 6 of U.S. Patent No. 10198516. Although the claims at issue are not identical, they are not patentably distinct from each other.

Claim 1 is anticipated by claim 6 of **10198516**.

Claim 10 is anticipated by claim 6 of **10198516**.

Claim 19 is anticipated by claim 6 of **10198516**.

Conclusion

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

Contact Information

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PHAM whose telephone number is (571)272-3924. The examiner can normally be reached on M-F 11-730pm Eastern.

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, Robert Beausoliel can be reached on 571-272-3645. 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.

/MICHAEL PHAM/

Primary Examiner, Art Unit 2167

Notice of References Cited	Application/Control No. 16/228,218		Applicant(s)/Patent Under Reexamination Chadha et al.	
	Examiner MICHAEL PHAM		Art Unit 2167	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-20120158739-A1	06-2012	Ah-Pine; Julien	G06K9/6293	707/748
*	B	US-20110047161-A1	02-2011	Myaeng; Sung Hyon	G06F16/3338	707/740
	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.

<i>Search Notes</i> 	Application/Control No. 16/228,218	Applicant(s)/Patent Under Reexamination Chadha et al.
	Examiner MICHAEL PHAM	Art Unit 2167

CPC - Searched*		
Symbol	Date	Examiner
G06F16/2465, G06F16/954, G06F16/951, G06F16/2365,G06F2216/03	10/01/2020	MP

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
13928313	10/01/2020	MP
npl	10/01/2020	MP
east	10/01/2020	MP
G06F16/2465, G06F16/954, G06F16/951, G06F16/2365,G06F2216/03, 707/722 see search history printouts	10/01/2020	MP

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
G06F	16/2465, 16/954, 16/951, 16/2365,2216/03	10/01/2020	MP
707	722	10/01/2020	MP

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<i>Search Notes</i> 	Application/Control No. 16/228,218	Applicant(s)/Patent Under Reexamination Chadha et al.
	Examiner MICHAEL PHAM	Art Unit 2167

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L6	96	monitor\$3 data source stored query and first second user and @ad<"20120802"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2020/10/01 05:04
L5	3	monitor\$3 data source stored query and first second user and @ad<"20120802" and ((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and @ad<"20120802"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2020/10/01 05:02
L4	3	monitor\$3 data source stored query and first second user and @ad<"20120802" and ((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2020/10/01 05:01
L3	5	monitor\$3 data source stored query and threshold and @ad<"20120802" and ((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2020/10/01 04:56
L2	0	real time data mining and monitor data source stored query and threshold and @ad<"20120802" and ((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2020/10/01 04:54
L1	155	real time data mining and @ad<"20120802" and ((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2020/10/01 04:48
S2514	14	((("10114870") or ("10102257") or ("10108713") or ("10114871") or ("10108678") or ("10114872") or ("10120911") or ("10114899") or ("10108679") or ("10108680") or	USPAT; USOCR	OR	OFF	2020/09/30 12:39

		("10108723") or ("10108724") or ("10198516") or ("10108725")).PN.				
S2513	7	non-textual query video image audio and @ad<"20120802"	US-PGPUB; USPAT	SAME	OFF	2020/09/30 12:23
S2512	33	non-textual query video image audio	US-PGPUB; USPAT	SAME	OFF	2020/09/30 12:22
S2511	2	"20110047161"	US-PGPUB; USPAT	OR	OFF	2020/09/30 12:20

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L8	3	monitor\$3 data source stored query and first second user and @ad<"20120802" and ((G06F16/2465 or G06F16/954 or G06F16/951 or G06F16/2365 or G06F2216/03).cpc. or 707/722.ccls.) and @ad<"20120802"	US-PGPUB; USPAT	SAME	OFF	2020/10/01 05:06
L7	96	monitor\$3 data source stored query and first second user and @ad<"20120802"	US-PGPUB; USPAT	SAME	OFF	2020/10/01 05:05
S2516	15	"13928313"	USPAT	SAME	OFF	2020/09/30 11:34
S2515	31	"13928313"	US-PGPUB; USPAT	SAME	OFF	2020/09/30 11:32

10/1/2020 5:08:38 AM

C:\Users\mpham1\Documents\EAST\Workspaces\13928313.wsp

Discover

PAT

monitor data source query...

+ 0 mods

0 filters

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

1,910,237 results

Top 1500 results

1. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes receiving a query based for non-textual data, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is performed...

CURRENT ASSIGNEES: RULE
US20190121808 | US APPLICATIONS | 25-APR-2019

2. Data source correlation user interface

Systems and methods are disclosed for implementing a data stream correlation user interface. The data stream correlation user interface provides workflows for selecting individual data sources from a matrix of data sources, identifying individual data fields of the data sources, establishing...

CURRENT ASSIGNEES: SPLUNK INC
US20200250178 | US APPLICATIONS | 06-AUG-2020

3. Using adaptors to manage data indexed by dissimilar identifiers

Techniques and a system are provided for a profile manager system that stores multiple profiles. These profiles are used by a content selection system to match entities to content for which the entities would be best suitable. The profile manager system uses adaptors to access and query information...

CURRENT ASSIGNEES: MICROSOFT TECH LICENSING LLC
US20170357697 | US APPLICATIONS | 14-DEC-2017

4. Systems and methods for detecting missing data in query results

Techniques provided herein allow for estimating data missing in query results provided in response to queries performed on data managed by a data management system. In the event that one or more leaf nodes are unable or unavailable to process a query, a final query result provided in response to the...

CURRENT ASSIGNEES: FACEBOOK INC
US20150032726 | US APPLICATIONS | 29-JAN-2015

5. Translating a natural language request to a domain specific language request based on multiple interpretation algorithms

In various embodiments, a natural language (NL) application enables users to more effectively access various data storage systems based on NL requests. As described, the NL application includes functionality for selecting an optimal interpretation algorithm, generating a dashboard, and/or generating...

CURRENT ASSIGNEES: SPLUNK INC
US20190034555 | US APPLICATIONS | 31-JAN-2019

6. Systems and methods for detecting missing data in query results

Techniques provided herein allow for estimating data missing in query results provided in response to queries performed on data managed by a data management system. In the event that one or more leaf nodes are unable or unavailable to process a query, a final query result provided in response to the...

CURRENT ASSIGNEES: FACEBOOK INC
US9501521 | US PATENTS | 22-NOV-2016

Relevance

VIEW

0 Results

427 Results

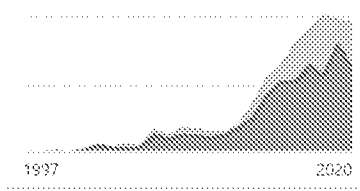
1073 Results

0 Results

0 Results

Publication Date

VIEW



First Cur Assignees by Relevance

VIEW

RULE (30)

SPLUNK INC (92)

MICROSOFT TECH LICENS... (78)

FACEBOOK INC (91)

BOEING CO (2)

INPLORE (1)

FISHER ROSEMOUNT SYS L... (17)

MICROZAL MEDIA LLC (8)

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

104/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Discover

PAT

monitor data source query...

+ 0 mods

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

1,156,224 results

Top 1500 results

1. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes receiving a query based for non-textual data, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is performed...

CURRENT ASSIGNEES: RULE
US20190121808 | US APPLICATIONS | 25-APR-2019

2. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085825 | US APPLICATIONS | 24-MAR-2016

3. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085827 | US APPLICATIONS | 24-MAR-2016

4. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085822 | US APPLICATIONS | 24-MAR-2016

5. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085821 | US APPLICATIONS | 24-MAR-2016

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A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085819 | US APPLICATIONS | 24-MAR-2016

Relevance

VIEW

0 Results

149 Results

1331 Results

0 Results

0 Results

Publication Date

VIEW

First Cur Assignees by Relevance

VIEW

RULE (30)

BOEING CO (3)

FISHER ROSEMOUNT SYS L... (18)

SKARVEN ENTPR INC (1)

CBS INTERACTIVE INC (2)

ORACLE INTL CORP (14)

CYCOS AG (2)

AAACCAUUCUETTCJACEEGLA...

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

105/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Visuals

Query

Results

0 Selected

Relevance

None

None

Discover

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monitor data source query...

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1 - 50

1,156,223 results

1. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085825 | US APPLICATIONS | 24-MAR-2016

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CURRENT ASSIGNEES: RULE
US20160085822 | US APPLICATIONS | 24-MAR-2016

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CURRENT ASSIGNEES: RULE
US20160085803 | US APPLICATIONS | 24-MAR-2016

4. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085806 | US APPLICATIONS | 24-MAR-2016

5. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085819 | US APPLICATIONS | 24-MAR-2016

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A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085821 | US APPLICATIONS | 24-MAR-2016

Result #1

PREV

NEXT

Discover

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+ 1 mod

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

None

1 - 50

1,644,858 results

Top 1500 results

1. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085825 | US APPLICATIONS | 24-MAR-2016

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CURRENT ASSIGNEES: RULE
US20160085821 | US APPLICATIONS | 24-MAR-2016

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CURRENT ASSIGNEES: RULE
US20160085819 | US APPLICATIONS | 24-MAR-2016

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A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085822 | US APPLICATIONS | 24-MAR-2016

5. Real-time and adaptive data mining

A method of analyzing data is presented. The method includes generating a query based on a topic of interest, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is...

CURRENT ASSIGNEES: RULE
US20160085803 | US APPLICATIONS | 24-MAR-2016

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CURRENT ASSIGNEES: RULE
US20160085806 | US APPLICATIONS | 24-MAR-2016

Relevance

VIEW

0 Results

1500 Results

0 Results

0 Results

0 Results

Publication Date

VIEW

2000

2020

First Cur Assignees by Relevance

VIEW

RULE (32)

SYMPHONY ADV MEDIA INC (40)

JILES INC (5)

FLOWERS JOHN S (1)

VISA INTL SRVC ASSOC (35)

FAITH PATRICK (1)

MICROSOFT TECH LICENS... (81)

GOOGLE LLC (72)

More Visuals

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107/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Visuals

Query

Results

0 Selected

Relevance

None

1 - 50

679,257 results

Top 1500 results

1. MoDisSENSE: A distributed platform for social networking services over mobile devices

In this work we present MoDisSENSE, a distributed analytics platform for social networking services over mobile devices. MoDisSENSE collects and stores various types of data from heterogeneous sources, such as GPS traces from cell phones, user profile information and comments from social networks...

IEEE Xplore | IEEE CONFERENCES | 01-OCT-2014 | 2014 IEEE International Conference on Big Data (Big Data) (Page(s): 49-51)

2. Infusing social data analytics into Future Internet applications for manufacturing

Today, a new age of engagement and collaboration has emerged with the proliferation of usergenerated content in social networks and generally the Web 2.0, rendering it particularly difficult for enterprises to monitor and act upon all content following conventional data mining methodologies. In this...

IEEE Xplore | IEEE CONFERENCES | 01-NOV-2014 | 2014 IEEE/ACS 11th International Conference on Computer Systems and Applications (AICCSA) (Page(s): 515-522)

3. Model of computer architecture for online social networks flexible data analysis: The case of Twitter data

Since several years, there is an increasing interest for new services based on the analysis of data coming from online social networks. Such services can, for example, provide the e-reputation of a product or a company, detect new trends in a commercial, social or political context, etc. The huge...

IEEE Xplore | IEEE CONFERENCES | 01-AUG-2016 | 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM) (Page(s): 677-684)

4. Enabling Query of Frequently Updated Data from Mobile Sensing Sources

The Internet of Things (IoT) paradigm connects everyday objects to the Internet and enables a multitude of applications with the real world data collected from those objects. In the city environment, real world data sources include fixed installations of sensor networks by city authorities as well...

IEEE Xplore | IEEE CONFERENCES | 01-DEC-2014 | 2014 IEEE 17th International Conference on Computational Science and Engineering (Page(s): 946-952)

5. Mobile Phone Sensing Systems: A Survey

Mobile phone sensing is an emerging area of interest for researchers as smart phones are becoming the core communication device in people's everyday lives. Sensor enabled mobile phones or smart phones are hovering to be at the center of a next revolution in social networks, green applications...

IEEE Xplore | IEEE PERIODICALS | 01-JAN-2013 | IEEE Communications Surveys & Tutorials

6. Social Media Intelligence and Learning Environment: an Open Source Framework for Social Media Data Collection, Analysis and Curation

Social Media Intelligence and Learning Environment (SMILE) is an open source framework bringing cutting-edge computational models on social media data to social science researchers and students with any level of programming and computation expertise. Many existing social media analysis tools require...

IEEE Xplore | IEEE CONFERENCES | 01-SEP-2019 | 2019 15th International Conference on eScience (eScience) (Page(s): 282-281)

Relevance

VIEW

0 Results

0 Results

1497 Results

0 Results

0 Results

Collections

VIEW

Publication Date

VIEW

More Visuals

Result #1

PREV

NEXT

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108/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

Discover

NPL

update monitor data sourc...

+ 1 mod

1 filter

STIC

Visuals

Query

Results

0 Selected

Relevance

None

1 - 50

335,117 results

1. Next Generation Data Fusion Open Source Intelligence (OSINT) System Based on MPEG7

We describe the Sail Labs Media Mining System which is capable of processing vast amounts of data typically gathered from open sources in unstructured form. The data are processed by a set of components and the output is produced in MPEG7 format. The origin and kind of input may be as diverse as a...

IEEE Xplore | IEEE CONFERENCES | 01-MAY-2008 | 2008 IEEE Conference on Technologies for Homeland Security (Page(s): 41-46)

2. Speech and language processing over the web

This article has provided a brief overview of how the marriage of speech and language technologies with the Web is changing the way people communicate and access information. Advances are happening at a rapid pace through improved algorithms, wider penetration of the Web, availability of data, and...

IEEE Xplore | IEEE PERIODICALS | 01-MAY-2003 | IEEE Signal Processing Magazine

3. Technologies for Dealing with Information Overload: An Engineer's Point of View

This chapter contains sections titled: Introduction Information Overload: Challenges and Opportunities Storing and Querying Semistructured Data Techniques for Retrieving Information Mining Large Databases for Extracting Information Processing Data Streams Summary References From Data to Information...

IEEE Xplore | WILEY-IEEE EBOOKS | 01-JAN-2012 | Wiley-IEEE Press 2012 (Edition: 1, Pages: 320)

4. Estimating Citizen Alertness in Crises Using Social Media Monitoring and Analysis

The use of social media for communication and interaction is becoming more and more frequent, which is also the case during crises. To monitor social media may therefore be a useful capability from a crisis management perspective, both for detecting new or emergent crises, as well as for getting a...

IEEE Xplore | IEEE CONFERENCES | 01-AUG-2012 | 2012 European Intelligence and Security Informatics Conference (Page(s): 189-196)

5. Open Source Intelligence in Disaster Management

In this paper we discuss the role of Open Source Intelligence (OSINT) in Disaster Management. In particular we present the use of the Sail Labs Media Mining System in the context of disaster relief operations and use samples to point out advantages and strengths of the MM-System. Future challenges...

IEEE Xplore | IEEE CONFERENCES | 01-AUG-2012 | 2012 European Intelligence and Security Informatics Conference (Page(s): 254-258)

6. Mass collaboration: a case study [customer support system]

We present an overview of a novel customer support system developed at QUIQ between 1999 and 2003. The application was perhaps the first systematic use of mass collaboration, which builds on the observation that large communities of users can be effectively leveraged to help each other, and to...

IEEE Xplore | IEEE CONFERENCES | 01-JAN-2004 | Proceedings, International Database Engineering and Applications Symposium, 2004. IDEAS '04. (Page(s): 133-146)

7. WISDOM from Light-Weight Information Retrieval

Top 1500 results

Relevance

VIEW

0 Results

0 Results

0 Results

0 Results

Collections

VIEW

The IP.c...

PubMed...

IBM Pe...

Wile...

IBM ...

IEEE ...

IEEE ...

Publication Date

VIEW

1964

2012

More Visuals

Result #1

PREV

NEXT

https://iq.ip.com/discover

109/211

IPR2024-01306
UIPATH EXHIBIT 1006

1/1

System and method for securely accessing information from disparate **data sources** through a network

RF Dustan, DA Vieira - US Patent 5,884,312, 1999 - Google Patents

... as disparate **data sources**. Disparate **data sources** must use a **stored** procedure to call a unique or specially written interface, such as a registered procedure, to access the disparate **data source**. The advantage of being ...

☆ 99 Cited by 353 Related articles All 2 versions 🔗

Query and retrieving semi-structured **data** from heterogeneous **sources** by translating structured **queries**

SE Madnick, MD Siegel - US Patent 6,282,537, 2001 - Google Patents

... Multiple conversions may be used if the **query** accesses multiple **data sources**. For example, a **data** receiver 102 may makes a request having **two** parts. One part may be satisfied by a **first data source** 104 and that **data** is required to be converted by a look-up function ...

☆ 99 Cited by 251 Related articles All 2 versions 🔗

System and method for autonomously generating heterogeneous **data source** interoperability bridges based on semantic modeling derived from self adapting ...

E Alumbaugh, Y Bohorquez, M Bain... - US Patent App. 10 ..., 2003 - Google Patents

System and method for autonomously generating heterogeneous **data source** interoperability bridges based on ... Authority US United States Prior art keywords **data** process ontology ... 7; 230000006399 behavior Effects 0 description 6; 238000004891 **communication** Methods 0 ...

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System and method for processing and presenting internet usage information to facilitate **user communications**

G Matsliach, A Ronen, R Ventura, B Rousso... - US Patent ..., 2005 - Google Patents

... B1 US 6879994B1 Authority US United States Prior art keywords **user users** chat session ...

G—PHYSICS; G06—COMPUTING; CALCULATING; COUNTING; G06F—ELECTRIC DIGITAL

DATA PROCESSING; G06F11/00—Error detection; Error correction; **Monitoring**; ...

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Adaptive filters for continuous **queries** over distributed **data** streams

C Olston, J Jiang, J Widom - ... conference on Management of data, 2003 - dl.acm.org

... Finally, organizations can **monitor** the overall traffic volume in ... Each **data** object O_i has an exact value V_i **stored** at a remote **source** that streams **updates** after filtering to the central ... O_i $[L_i, H_i]$ bound for object O_i W_i width of bound for object O_i ($W_i = H_i - L_i$) C_i **update**/growth msg ...

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Optimizing **queries** across diverse **data sources**

L Haas, D Kossmann, E Wimmers, J Yang - 1997 - ilpubs.stanford.edu

... There are roots for select, group-by, insert, delete, and **update**, which are invoked by the ... STAR, Garlic's RepoJoin STAR creates a generic Push- Down POP to **track** the properties ... large: high processing costs at Garlic's **query** engine, the wrapper and the **data source**, plus high ...

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System and method for collecting and processing **data**

MD Ghuneim, MR Dennebaum... - US Patent 8,271,429, 2012 - Google Patents

... object of the present invention to provide a system and method that collects and **updates** specified **data** ... and is operable to manage a plugin associated with the **data** item to **update** the **data** ... **data** item to retrieve the unstructured **data** in response to the **data** item to be **monitored** ...

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Method and apparatus for automatic **updating** of **user** profiles

M Thint, SJ Case - US Patent 7,243,105, 2007 - Google Patents

... profile **updates** or to apply external control rules 255 to the action of **updating** a profile ... the profile 220 itself, and hence be subject to adjustment through profile **updates** output by ... 2, as required to personalize certain aspects of the preferred profile **update** inference process, eg ...

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Web server mechanism for processing function calls for dynamic **data queries** in a web page

GG Stewart - US Patent 5,715,453, 1998 - Google Patents

... A web server computer system 220 executes a web server application 122, **monitors** requests, and ... web browser 210 (step 536) which interprets it and displays it on the **monitor** of **user** ... 220 does provide a mechanism for accessing dynamic **data** from a **data source** and inserting ...

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Networked system for interactive **communication** and remote **monitoring** of individuals

SJ Brown - US Patent 5,997,476, 1999 - Google Patents

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System and method for securely accessing information from disparate **data sources** through a network

RF Dustan, DA Vieira - US Patent 5,884,312, 1999 - Google Patents

... as disparate **data sources**. Disparate **data sources** must use a **stored** procedure to call a unique or specially written interface, such as a registered procedure, to access the disparate **data source**. The advantage of being ...

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Query and retrieving semi-structured **data** from heterogeneous **sources** by translating structured **queries**

SE Madnick, MD Siegel - US Patent 6,282,537, 2001 - Google Patents

... Multiple conversions may be used if the **query** accesses multiple **data sources**. For example, a **data** receiver 102 may makes a request having **two** parts. One part may be satisfied by a **first data source** 104 and that **data** is required to be converted by a look-up function ...

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C Olston, J Jiang, J Widom - ... conference on Management of data, 2003 - dl.acm.org

... Finally, organizations can **monitor** the overall traffic volume in ... Each **data** object O_i has an exact value V_i **stored** at a remote **source** that streams **updates** after filtering to the central ... $O_i [L_i, H_i]$ bound for object O_i W_i width of bound for object O_i ($W_i = H_i - L_i$) C_i **update/growth** msg ...

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L Haas, D Kossmann, E Wimmers, J Yang - 1997 - ilpubs.stanford.edu

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Data extraction from world wide web pages

SE Madnick, MD Siegel - US Patent 5,913,214, 1999 - Google Patents

... Multiple conversions may be used if the **query** accesses multiple **data sources**. For example, a **data** receiver 102 may make a request having **two** parts. One part may be satisfied by a **first data source** 104 and that **data** is required to be converted by a look-up function ...

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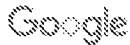
Demand deposit **account data** processing system

MP Lowery - US Patent 6,189,785, 2001 - Google Patents

... The system also preferably automatically **updates** all of its databases with pertinent transaction ...

These prior art systems 10 generally **update** their information on a daily basis in a ... 2a and particularly illustrating the exception processing, database **updating**, and report generation ...

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Select the name of the data source with the connection you want to update. ... With OAuth, database credentials do not need to be stored in Tableau, and all users ... users who want to create or edit workbooks that connect to the data source. ... Note: If you create extracts of your Google data source, select this first option, ...

help.tableau.com › en-us › everybody_admin_data ▼

Connecting to Data Sources - Tableau

Publish a data source that defines a connection to a database and that includes ... Optimizing data access with Tableau Server can seem complex at first. ... or other source, and returns the results of the query for use in a workbook. ... When a user publishes a workbook with an extract, the extract is stored on the server.

docs.oracle.com › web.1111 › ds_tuning ▼

Tuning Data Source Connection Pools - Oracle Help Center

Fusion Middleware Configuring and Managing JDBC Data Sources for ... EJB, there is considerable processing overhead for the communication between the ... prepareStatement(), WebLogic Server checks to see if the statement is stored in ... a connection, the data source creates a connection without first having to test a ...

docs.oracle.com › wls › JDBC › ds_tuning ▼

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docs.microsoft.com › ... › Query Processing Architecture ▼

Query Processing Architecture Guide - SQL Server | Microsoft ...

Feb 21, 2020 - When a query is executed and accesses data in row store tables, the ... to other Transact-SQL statements such as INSERT, UPDATE, and DELETE. ... When a stored procedure or trigger is first executed, the source is ... The SQL Server Database Engine uses the resource monitor and user worker threads ...

docs.microsoft.com › Azure › Azure Monitor ▼

Azure Monitor FAQ - Azure Monitor | Microsoft Docs

May 15, 2020 - Azure Monitor collects data from multiple sources into a common data platform where ... The log data engine and query language of Log Analytics is now referred to as Azure Monitor Logs. See Azure Monitor terminology updates. ... provide a custom experience for working with data stored in Azure Monitor.

www.progress.com › tutorials › designing performance ▼

Designing Performance-Optimized JDBC Applications

Jump to Managing Connections and Updates - Once the prepared statement is closed, a JDBC ... SQL query, a common occurrence in many applications, ... preventing other users from accessing the rows. ... input/output necessary to communicate between ... (the JDBC driver, the transaction monitor, and the DBMS).

grafana.com › docs › grafana › latest › panels › queries ▼

Queries | Grafana Labs

Queries Queries are how Grafana panels communicate with data sources to get data ... The first query will use the data source that was selected before you selected Mixed. ... if the user zooms

out a lot then the interval becomes greater, resulting in a . For example, you could shift the time range for the panel to be two hours ...

helpx.adobe.com > configuring-administering > data-so... ▾

Data Source Management for ColdFusion - Adobe Support

Nov 18, 2019 - After you configure a data source, ColdFusion can then communicate ... The user name that ColdFusion passes to the JDBC driver to connect ... Select this option to reuse prepared statements (that is, stored procedures and queries ... The number of the TCP/IP port that the server monitors for connections.

cloud.google.com > ... > BigQuery > Documentation ▾

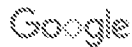
Introduction to external data sources | BigQuery | Google Cloud

Aug 29, 2020 - The performance of a query that includes an external data source depends on the external storage type. For example, querying data stored in ...

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Searches related to update monitor data source query stored first second user communication

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Aug 3, 2005 - That is, the statement cache for each connection in a data source uses the ... prepareStatement() , WebLogic Server checks to see if the statement is stored in the ... If Test Table Name includes a full query starting with SQL followed by space and ... the database user used to create database connections in the data source ...

www.progress.com › tutorials › ado-net › designing pe... ▾

Designing Performance-Optimized .NET Applications

Apr 17, 2002 - Note that the first and second connection strings differ only by the value assigned for the User ID, Password, and Max Pool Size connection string options.

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MIS 120 STUDY GUIDE FOR EXAM 2

May 23, 2009 - a. the data access API, the SQL queries, and the DBMS ... NET data provider objects to retrieve data from a database, you can store the data in an object called a ... b. two or more users retrieve and then try to update data in the same row of a ... If you save the connection string for a data source in the configuration file for the ...

cloud.google.com › ... › BigQuery › Documentation ▾

Loading data from a local data source | BigQuery | Google Cloud

Jun 29, 2012 - In addition, if a user has bigquery.datasets.create permissions, when that ... To load data into BigQuery from a local data source, an encapsulating dataset must first exist. ... or partition, you can update the schema when you append to it or overwrite it. ... In fact, methods that support media uploads have two URI endpoints..

www.ni.com › pdf › manuals ▾ [PDF]

LabVIEW Database Connectivity Toolkit User Manual ...

Jun 15, 2008 - This manual contains information about how to communicate and pass data between ... recording, storing in an information retrieval system, or translating, in whole or in part, ... providers you can use to open a connection to a specific data source, such ... want to save a refnum to a database table, you must first type cast the.

support.microsoft.com › en-us › office ▾

Create a table and add fields - Access - Microsoft Support

Aug 25, 2007 - For instance, you can create a Contacts table to store a list of names, ... As a workaround, import the source data into an Access database, and then ... List the fields in the table or query that are used for the subdatasheet that ... Access assigns the name Field1 to the first new field, Field2 to the second new field, and so on.

developer.android.com › guide › topics › providers › c... ▾

Content provider basics | Android Developers

Jan 27, 2012 - Typically you work with content providers in one of two scenarios; you may want to ... This allows the UI to continue to be available to the user while the query is running ... some data for that word, such as the locale in which it was first encountered. The column headers are column names that are stored in the provider.

www.enterpriseintegrationpatterns.com › Chapter1

Solving Integration Problems ... - Enterprise Integration Patterns

Aug 23, 2003 - Second, spreading business functions across multiple applications provides the ... Application integration needs to provide efficient, reliable and secure data ... from multiple sources into a single display to avoid having the user access multiple ... Many of these systems are going to have their own data stores to store ...

www.dellemc.com › products › storage-4 › docu8431

ApplicationXtender Core Components Administrator's Guide

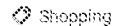
Mar 15, 2009 - Starting AppXtender Admin after the First Time 33 ...
Using Directory Services for User Authentication : ... AppXtender Admin Startup Wizard -
Upgrade Data Source Page. ... AppXtender Migration Wizard: Properties Dialog Box: Saved
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docs.embarcadero.com > products > Rapidsql_user_guide ▾ [PDF]

Rapid SQL User Guide - Embarcadero

Mar 11, 2009 - When you first install an evaluation copy of Rapid SQL, you can use it for 14 days. ... You can configure Embarcadero products to use a datasource catalog stored in the system ... Rules. Sequences. Synonyms. Tables. Triggers. User Datatypes. Views ... monitor many Microsoft SQL Servers, datasource groups are a great ...

docs.embarcadero.com > dbartisan > dbartisan8.5 > DB... ▾ [PDF]

DBArtisan User Guide - Embarcadero

Mar 6, 2010 - backing up and restoration of databases, the use of the Database Monitor, Database ... EMBARCADERO TECHNOLOGIES > DBARTISAN USER GUIDE. 14 ... and can be saved locally or in a common datasource catalog for use by other Embarcadero ... Query Builder generates the query text in the lower SQL window.

www.oreilly.com > view > fixing-access-annoyances ▾

3. Data, Tables, and Database Design - Fixing Access ...

Jan 1, 2004 - When the wizard finishes, Access will run the query; it will find all the records in the first table where the foreign key doesn't match a primary key in the second table ...

help.sap.com > doc > en-US > Automated_Monitoring_... ▾ [PDF]

Automated Monitoring Overview - SAP Help Portal

Dec 1, 2011 - Automated Monitoring of business process controls is a key feature of SAP Business ... Added sections on programmed and external partner data source types, ... and configuration in this overview, or to defer that to detailed user ... Also added two examples of rules to the appendix. ... SAP Query Data Sources and Rules ...

answers.sap.com > questions > answer-please ▾

answer please...? - SAP Q&A

Jul 9, 2006 - Q) I want to delete a BEx query that is in Production system through request. ... A) If this is a custom (user-defined) datasource you can make the datasource delta enabled. ... A. This depends, if you have complex coding in update rules it will take longer ... There are two Partitioning Performance aspects for BW (Cube & PSA).
4 answers

www.pitt.edu > ~edindex > OfficeTutorials > Lesson5 ▾ [PDF]

5 MAIL MERGE AND RELATED OPERATIONS Form letters ...

Feb 1, 2001 - There will be less hand-holding, so you will have to think, remember and, in so doing, consolidate all that you have learned. You are going to create a Data Source ...

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ApplicationXtender Core Components Administrator's Guide

Mar 15, 2009 - Starting AppXtender Admin after the First Time ... Using Directory Services for User Authentication ... AppXtender Admin Startup Wizard - Upgrade Data Source Page 32 ... 14. ApplicationXtender Core Components Administrator's Guide ... AppXtender Migration Wizard: Properties Dialog Box: Saved Query.

www.redbooks.ibm.com/redbooks/pdfs/56349new.pdf PDF

DB2 II: Performance Monitoring, Tuning and Capacity ...

Nov 15, 2004 - 3-14 Database manager snapshot showing sort monitor elements 4-6 ping DB2 II federated server and Oracle data source server (azov) 172 ... 3-1 User query involving join of two nicknames Communication with the data source ... Update data in relational data sources, as if the data is stored in the federated.

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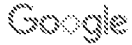
Guide and Reference - IBM Support Guide

Oct 9, 2009 - By using SQL you can read from and write to mainframe data sources. You can return SQL result sets to federated queries or update the data at the source.

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99.. - Jeff Davis County Schools

Dec 1, 2004 - Sharon Henry, Reuben Bennett Jr. ... daughter of Gerald and, Sharon. Lewis, to Paul Batten, ... Sharon Henry and Minister nual Address. ... 165 North Gill Street.

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1CII? - Jeff Davis County Schools

Jan 1, 2005 - daughters, Sharon (Marcus) of, Washington, ... McLoon at 88 N. Gill St. Hazlehurst, GA ... Chadha, August 14-. Patrick and Isadora Brookins, Hordie's, Drugs.

www.indiatoday.in > ... > Simply Punjabi ▾

Pages from a wedding album - SUPPLEMENTS News - Issue ...

Oct 31, 2008 - Aarthi was from Hyderabad and Abhishek Gill, 26, from Ludhiana. They met in 2000, ... Sharon Mittal met Nikhil, 28, the owner of Nik Bakers, in October 2006 as a customer. "I was planning to go ... PUNEET CHADHA, LUDHIANA, 26. PUNEET .

www2.gov.bc.ca > medical-services-plan > bluebook2011 > PDF

2011 (PDF, 1.5MB) - Province of British Columbia

Oct 26, 2011 - Barber, Sharon Rose 145,213.36 ... Chadha, Neil Kumar
..... 138,969.89. Chafe ... Gill, John Setbire 356,628.09.

faculty.mdanderson.org > profiles > michael_overman ▾

Michael J Overman | MD Anderson Cancer Center

May 15, 2009 - Collaborative care led by our Dr. Sharon Giordano and Dr. Alessandra Ferrajoli has helped David Dudak overcome male ... https://t.co/8CkQ75hFyK ...

www.krtappraisal.com > dist > pdf > location-scarborough > PDF

Town of Scarborough, ME - KRT Appraisal

Mar 15, 2006 - 060 GILL, KERRY R & PAMELA M. 1010 SINGLE ... 167 MURPHY, THOMAS F & SHARON E REVOCABLE TRUST ... 208 CHADHA, GURKISHAN SINGH.

d10k7k7mywg42z.cloudfront.net > assets ▾ > PDF

Names of Persons Appearing to be Owners of Abandoned ...

Jan 15, 2003 - AHEARN SHARON A, 400 NARRAGANSETT PKWYAPT EH3, WARWICK. AHEARN DAVID J, 1960 ... CHADHA RAJU, 69 HAZAEL ST, PROVIDENCE. CHADWICK EDNA ... DE LA TORRE DENIS A, 65 GILL AVE, PAWTUCKET. DE RUMI, 182 ...

www.chicago.gov > dps > DownloadableMWBEDirectory > XLS

October 2009 MWBE Directory - City of Chicago

Oct 15, 2009 - Sharon, Williams, Black, Female, 1010568 ... IL, 60636, JANITORIAL/CUSTODIAL SERVICES, Cheryl, Gill, Black, Female, 1057058 ... SOFTWARE/COMPUTER SOFTWARE CONSULTING, Asha, Chadha, Asian Pacific, Female, 1033055.

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Apr 15, 2012 - Wilson, Sharon R MD. 2315 Stockton Blvd. Sacramento, CA 95817 ... Gill, Sharon MD. 4850 Y St Ste 80400 ... Chadha, Mandeep S MD. 5151 F Street 6 North.

www.cam.co.uk > clients ▾

Clients | Creative Artists Management

Oct 10, 2008 - Anoushka Chadha, Nicholle Cherrie ... Sharon Duncan-Brewster, Matthew ... Don Gilet, Tom Gill, Grainne Good, Tala Gouveia, Celia Graham, Daniel Graham.

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en.wikipedia.org › wiki › Xincheng ▾

Xincheng - Wikipedia

Jul 17, 2007 - Xincheng may refer to: Contents. 1 People; 2 Places. 2.1 Mainland China; 2.2 Taiwan. 3 Art forms; 4 See also. People[edit]. Tuoba Xincheng (拓拔新成), brother ...

en.wikipedia.org › wiki › Xincheng...Tianjin ▾

Xincheng, Tianjin - Wikipedia

Dec 18, 2008 - *Xincheng* (Chinese: 新城; pinyin: Xīnchéng) is a town in Binhai New Area of Tianjin, China. References[edit]. ^ "Xincheng". AroundGuides. Retrieved 1 ...

chinainsulation.en.made-in-china.com › company-XIN... ▾

Company Overview - XIN CHENG INDUSTRY MATERIAL CO ...

Jan 1, 2012 - XINCHENG INDUSTRY MATERIAL Co., Ltd. Specialize in the Electronical insulation materials in China. We devoted ourselves to a wide rang of electrical .

Management System Certification: ISO 9000

engineering.purdue.edu › ... › BME Newsletter › 2009 ▾

Ji-Xin Cheng's Non-Linear Microscopy Research Spotlighted ...

Jun 29, 2009 - The June 29, 2009 issue of Chemical & Engineering News spotlights Professor Ji-Xin Cheng's research using coherent anti-Stokes Raman scattering (CARS) ...

www.xinch.com ▾

Xincheng Scientific Industries Co., Ltd. _Others

Jun 30, 2006 - Xincheng Scientific Industries Co., Ltd. -Xincheng Scientific Industries Co., Ltd. Has been under the guidance of the national famous medical teaching experts for ...

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Ordering of water molecules between phospholipid bilayers ...

Aug 19, 2003 - Ordering of water molecules between phospholipid bilayers visualized by coherent anti-Stokes Raman scattering microscopy. Ji-Xin Cheng, Sophie Pautot, David ...

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Jan 14, 2007 - 19, Cheng-Shien Liao, PhD, May 17, Biomedical Engineering, Pendar Technologies.
20, Hyeon Jaeng Lee, PhD, Dec 17, PUI Se, Associate Professor, Zhejiang ...

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I DREAM NETWORKS PRIVATE LIMITED - Company ...

Jun 17, 2010 - Directors of I Dream Networks Private Limited are Deepti Chadda and Parvinder Singh. I Dream Networks Private Limited's Corporate Identification Number is ...

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/228,218	12/20/2018	Sharon Gill Chadha	79531-000049

CONFIRMATION NO. 3189

98275
Seyfarth Shaw LLP
2029 Century Park East, Suite 3500
Los Angeles, CA 90067-3063

PUBLICATION NOTICE



OC000000107682499

Title:REAL-TIME AND ADAPTIVE DATA MINING

Publication No.US-2019-0121808-A1

Publication Date:04/25/2019

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.

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 16/228,218				
APPLICATION AS FILED - PART I										
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY				
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	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), (l), 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(j))	20	minus 20 = *	x 50 =	0.00	OR					
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	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)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY		
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=	OR	x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee (37 CFR 1.16(s))							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=	OR	x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee (37 CFR 1.16(s))							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
16/228,218	12/20/2018	2827	785	79531-000049	20	3

CONFIRMATION NO. 3189

98275

Seyfarth Shaw LLP
2029 Century Park East, Suite 3500
Los Angeles, CA 90067-3063

FILING RECEIPT



0000000105127452

Date Mailed: 01/17/2019

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)

Sharon Gill Chadha, Santa Monica, CA;
Xin Cheng, San Diego, CA;
Parvinder Chadha, Santa Monica, CA;

Applicant(s)

Rule 14, Santa Monica, CA;

Power of Attorney: The patent practitioners associated with Customer Number 98275

Domestic Priority data as claimed by applicant

This application is a CIP of 14/960,316 12/04/2015 PAT 10198516 *
which is a CIP of 13/928,313 06/26/2013 PAT 9229977
which claims benefit of 61/679,024 08/02/2012

(*)Data provided by applicant is not consistent with PTO records.

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.

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Permission to Access Search Results: Yes

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If Required, Foreign Filing License Granted: 01/16/2019

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/228,218**

Projected Publication Date: 04/25/2019

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

REAL-TIME AND ADAPTIVE DATA MINING

Preliminary Class

365

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

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Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

98275

OR

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The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

Date (Optional)

Name

Jito Chadha

Title

CEO

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

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Invention****REAL-TIME AND ADAPTIVE DATA MINING**

As the below named inventor, I hereby declare that:

This declaration
is directed to:☐

The attached application, or

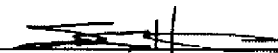
☒United States application or PCT international application number 14/960,316
filed on December 4, 2015.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001
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LEGAL NAME OF INVENTORInventor: Sharon Gill CHADHADate (Optional): July 1, 2018Signature: 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

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Invention****REAL-TIME AND ADAPTIVE DATA MINING**

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This declaration
is directed to:☐

The attached application, or

☒United States application or PCT international application number 14/960,316
filed on December 4, 2015

The above-identified application was made or authorized to be made by me.

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LEGAL NAME OF INVENTORInventor: Xin CHENG

Date (Optional) : _____

Signature: 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

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This declaration
is directed to:☐

The attached application, or

☒United States application or PCT international application number 14/960,316
filed on December 4, 2015

The above-identified application was made or authorized to be made by me.

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by fine or imprisonment of not more than five (5) years, or both.**WARNING:**

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LEGAL NAME OF INVENTORInventor: Parvinder CHADHADate (Optional): July 1, 2018Signature: 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

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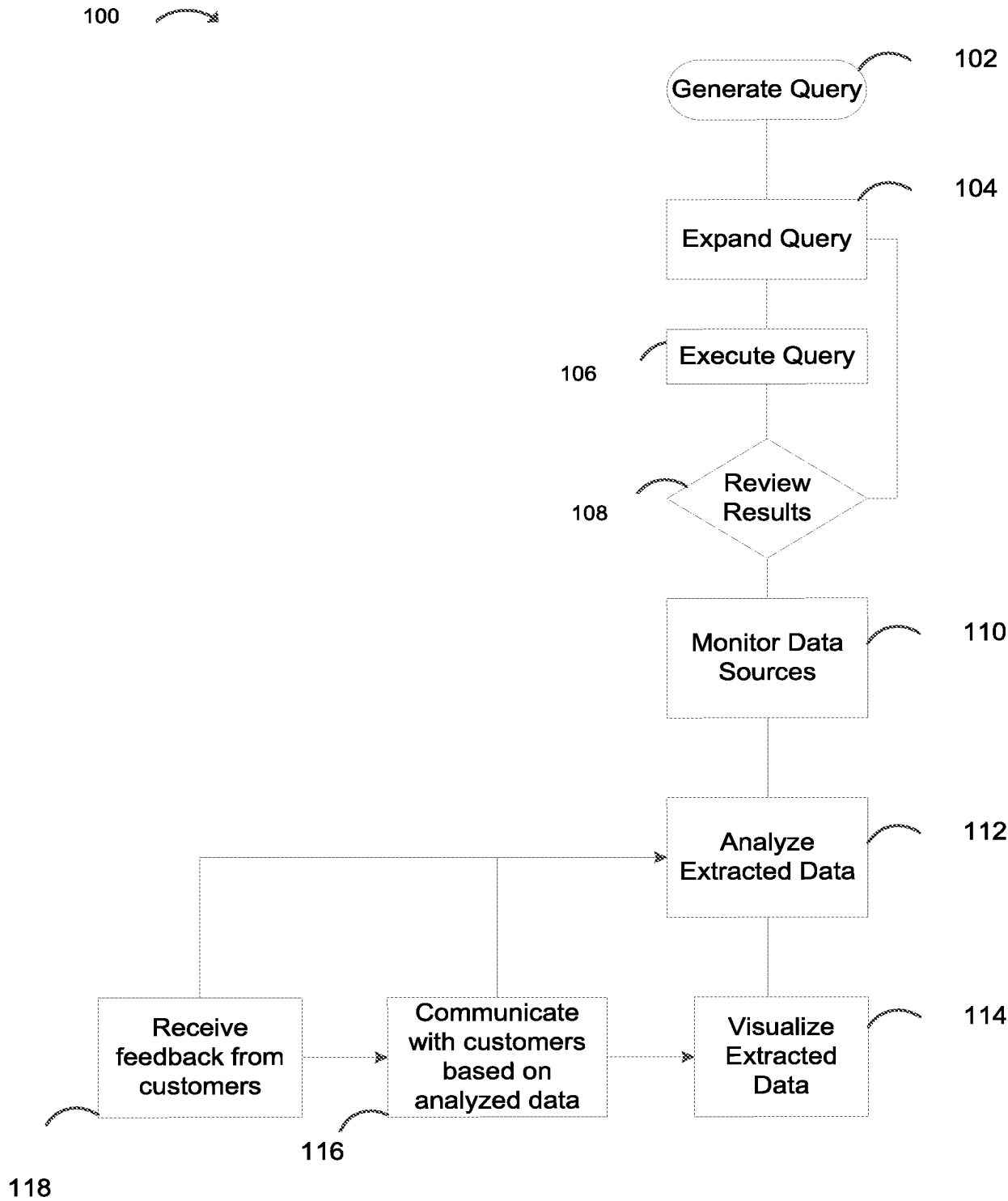


FIG. 1

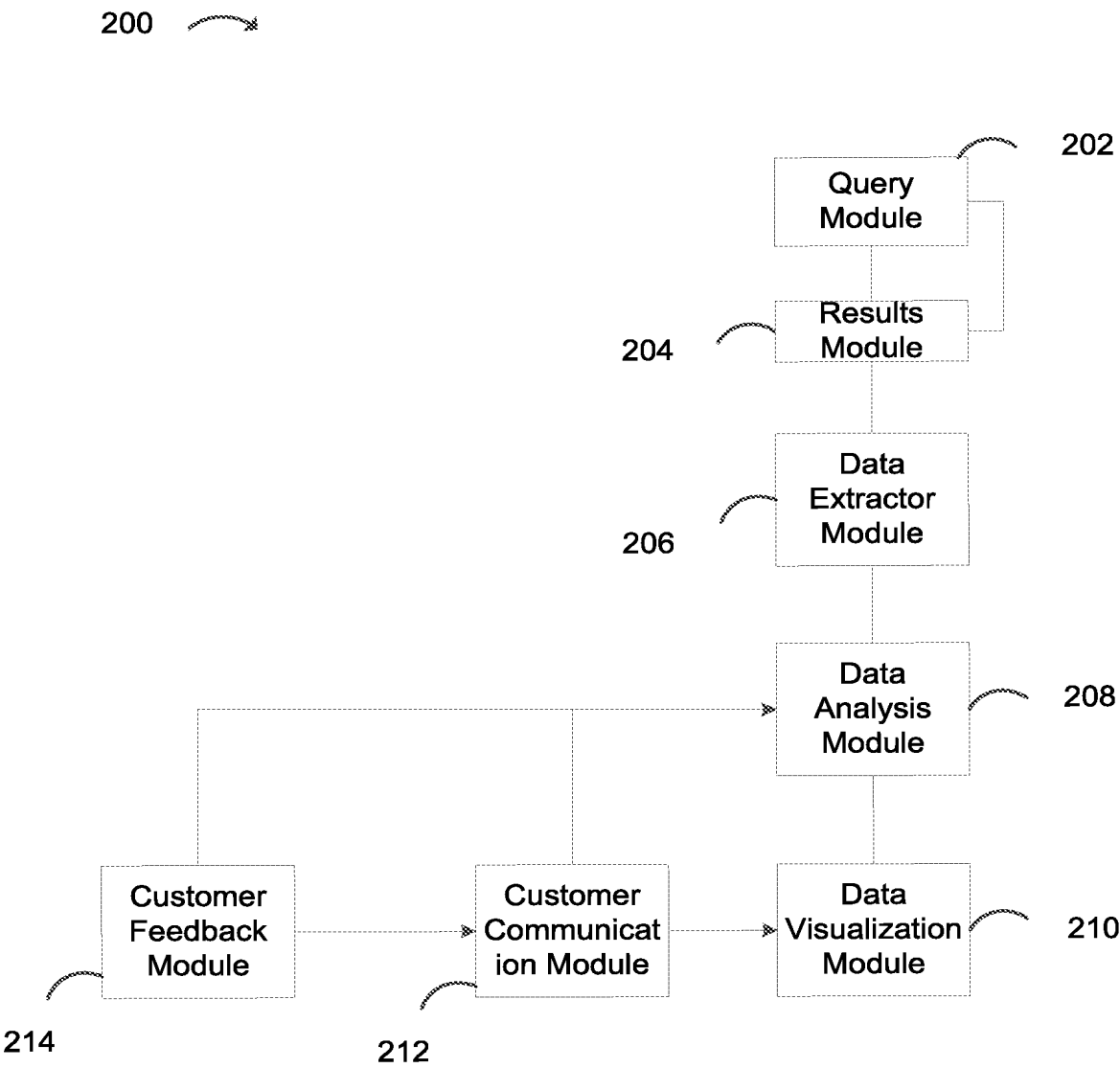


FIG. 2

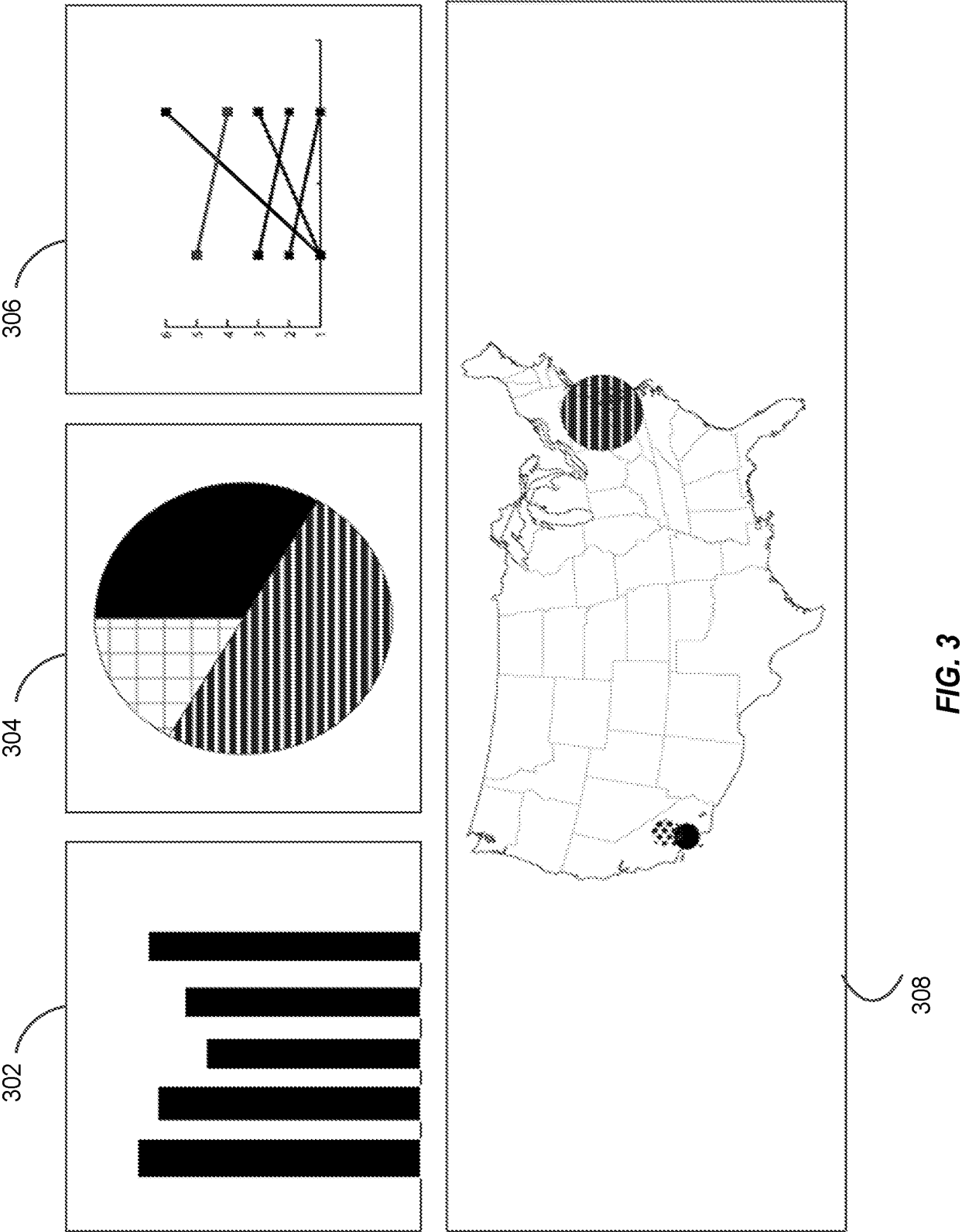


FIG. 3

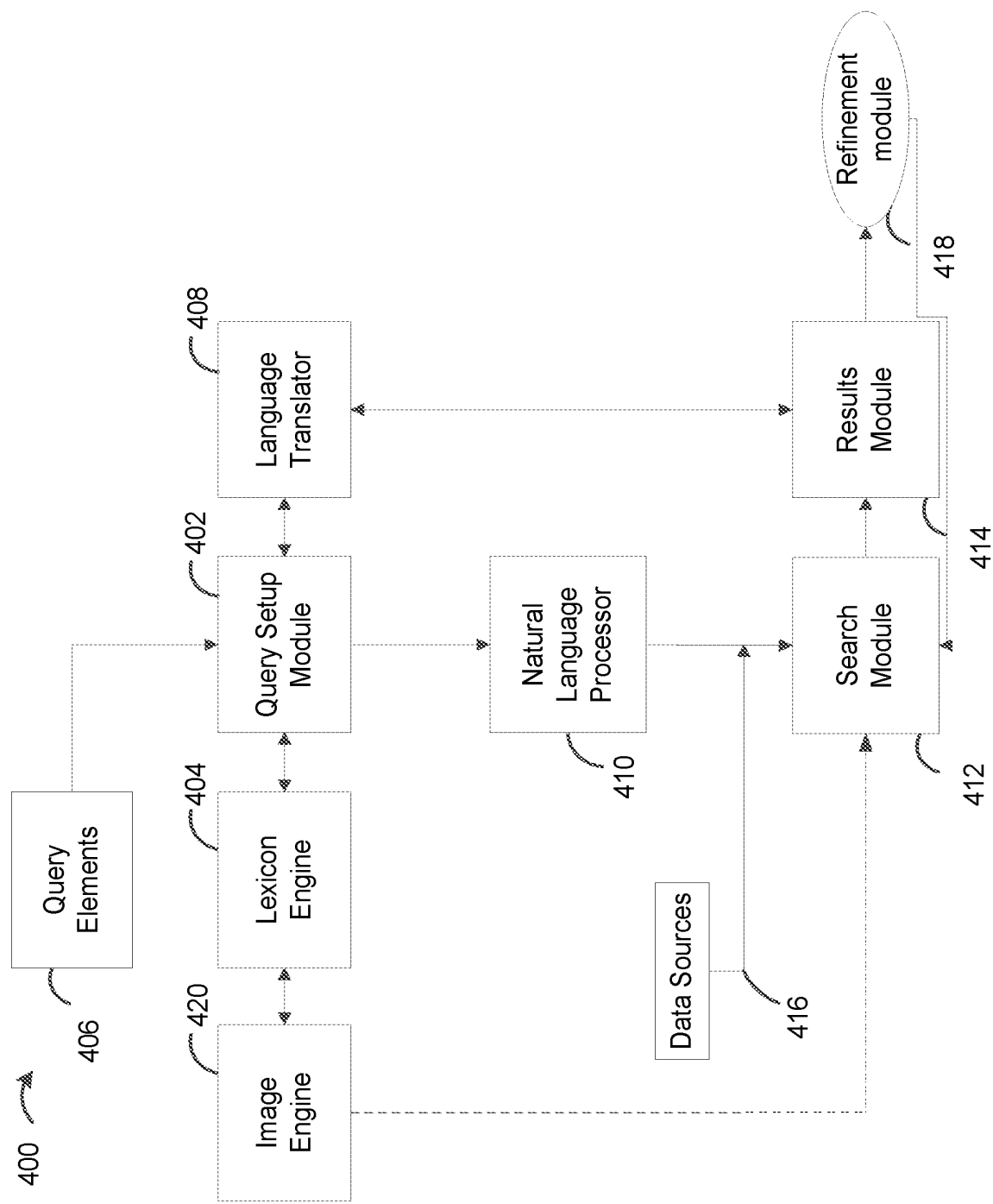


FIG. 4

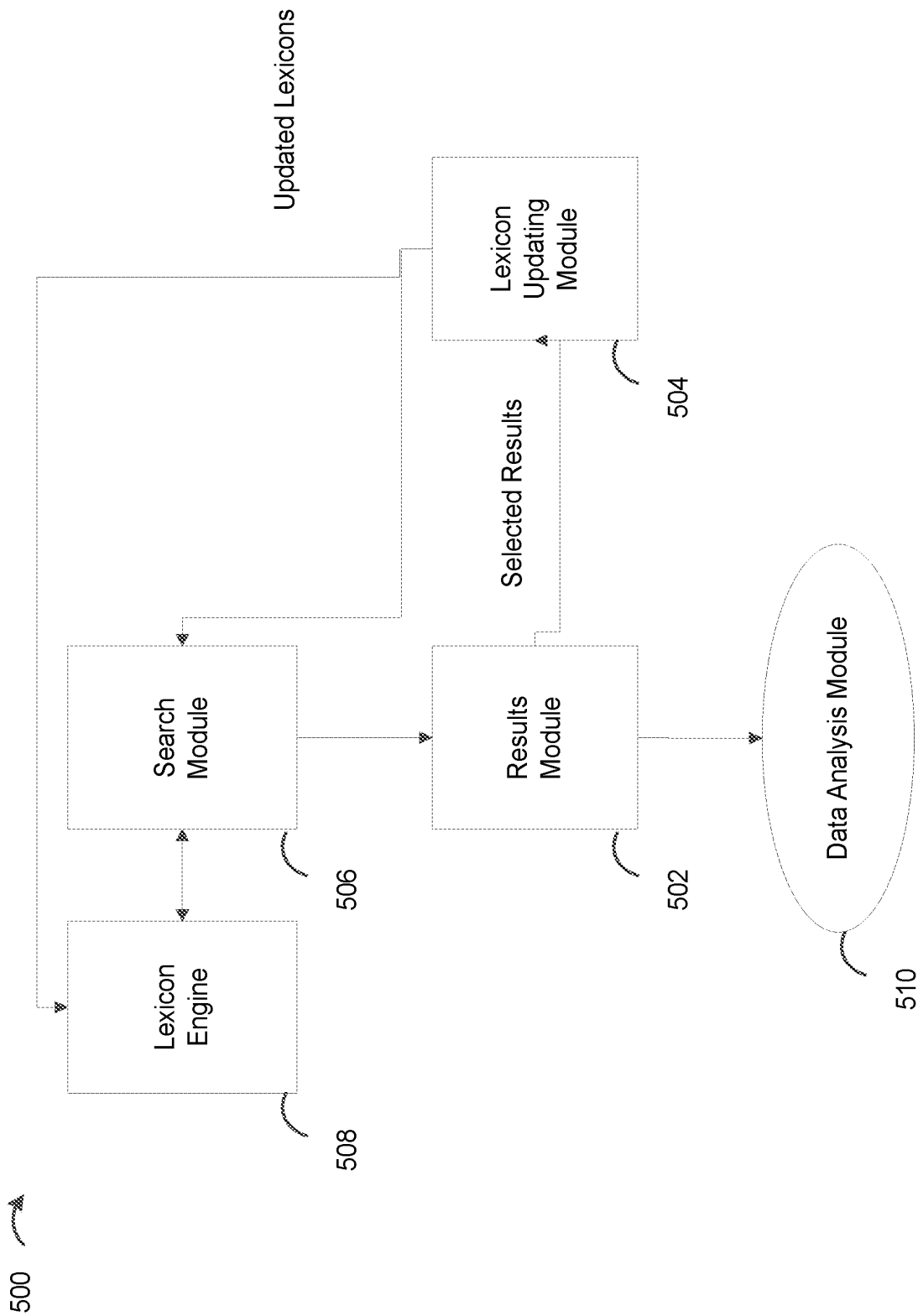


FIG. 5A

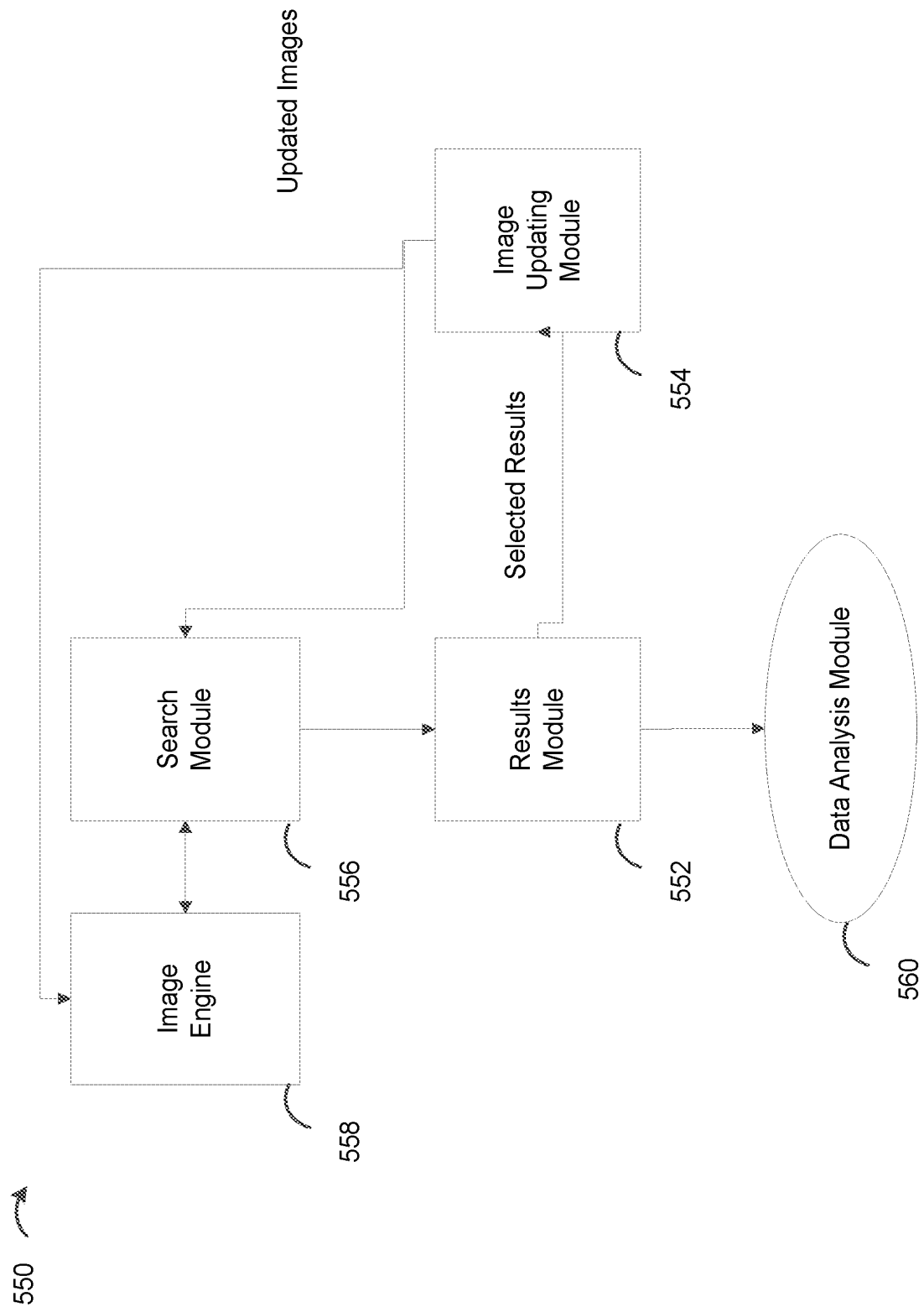


FIG. 5B

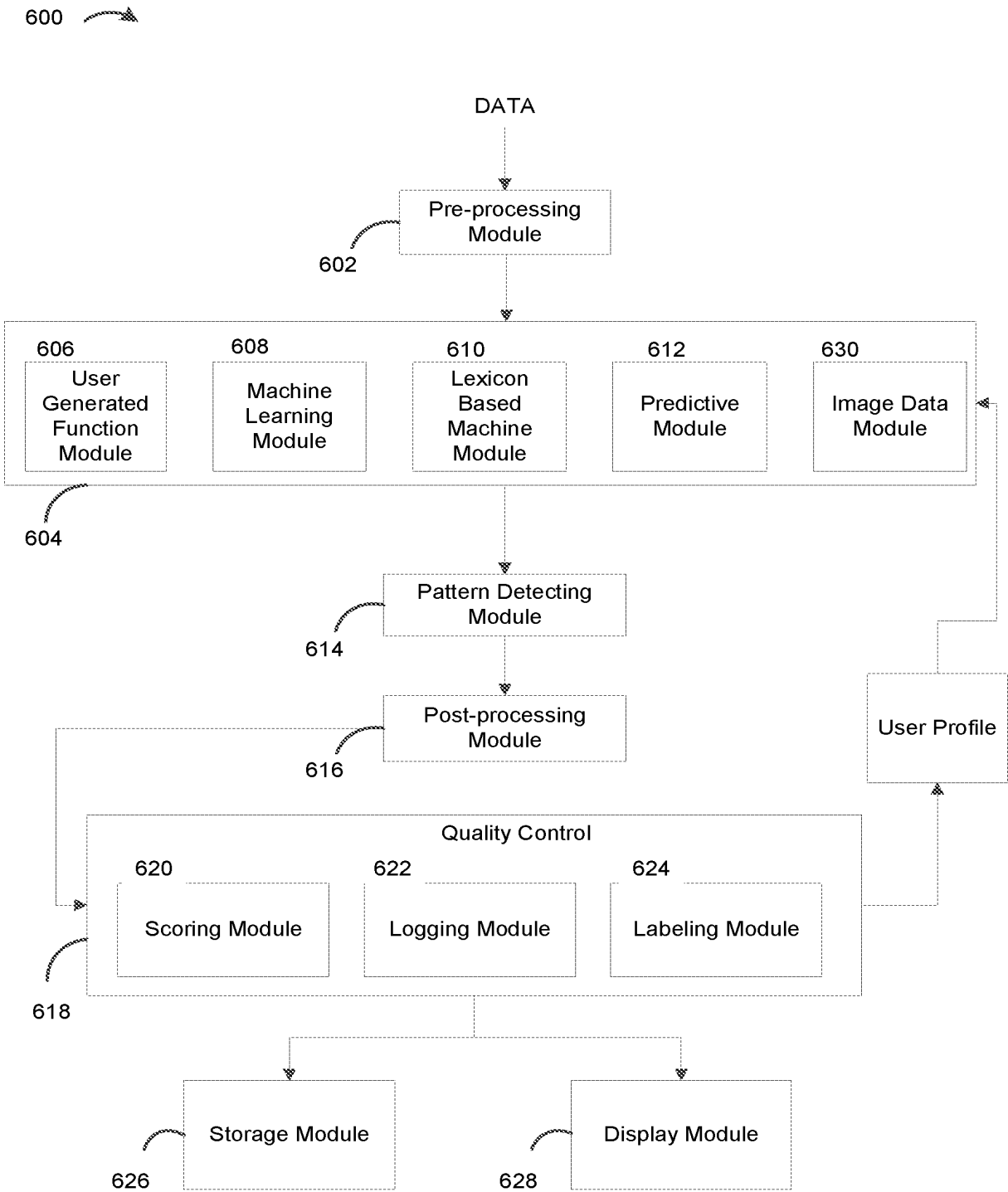


FIG. 6

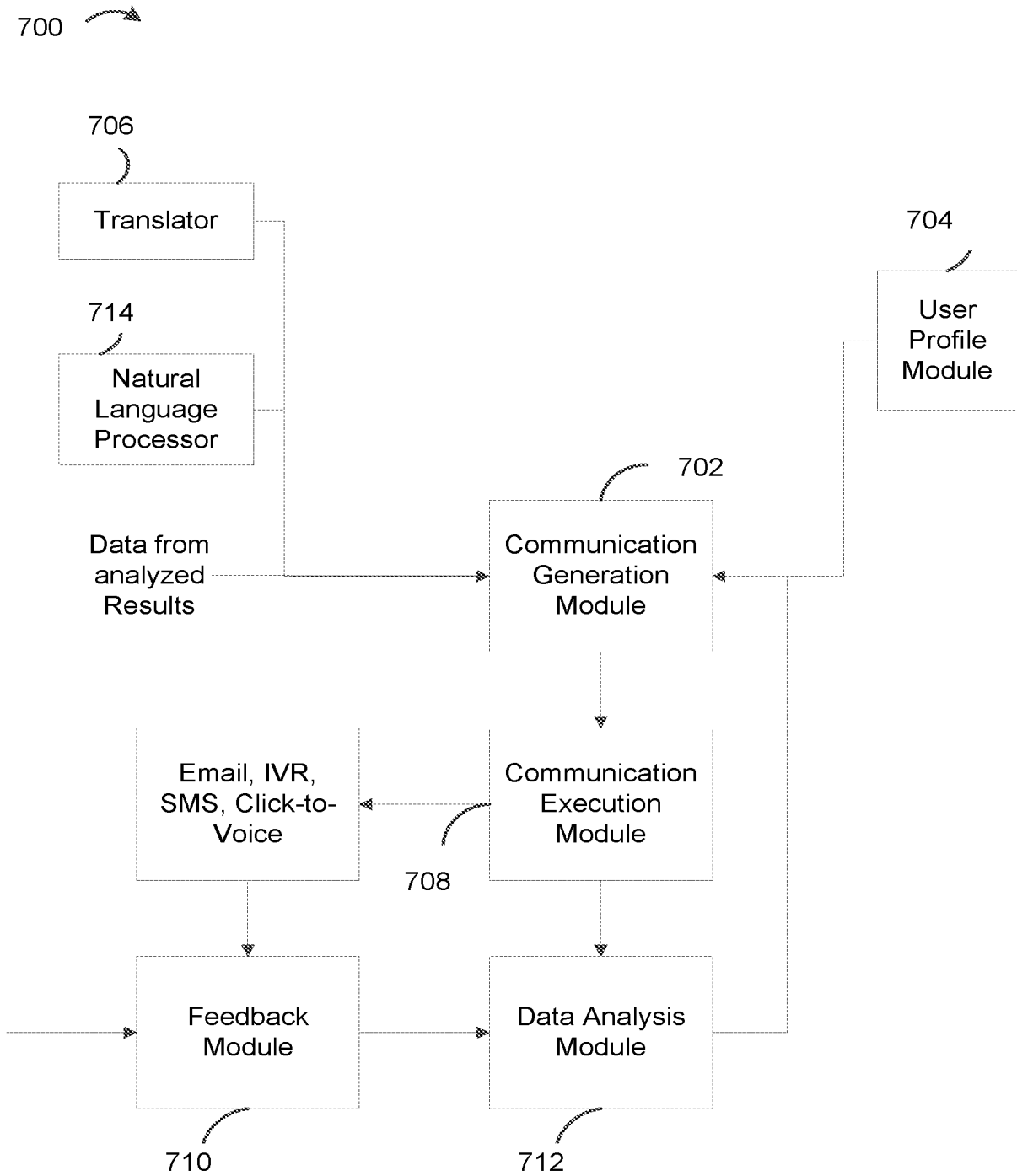


FIG. 7

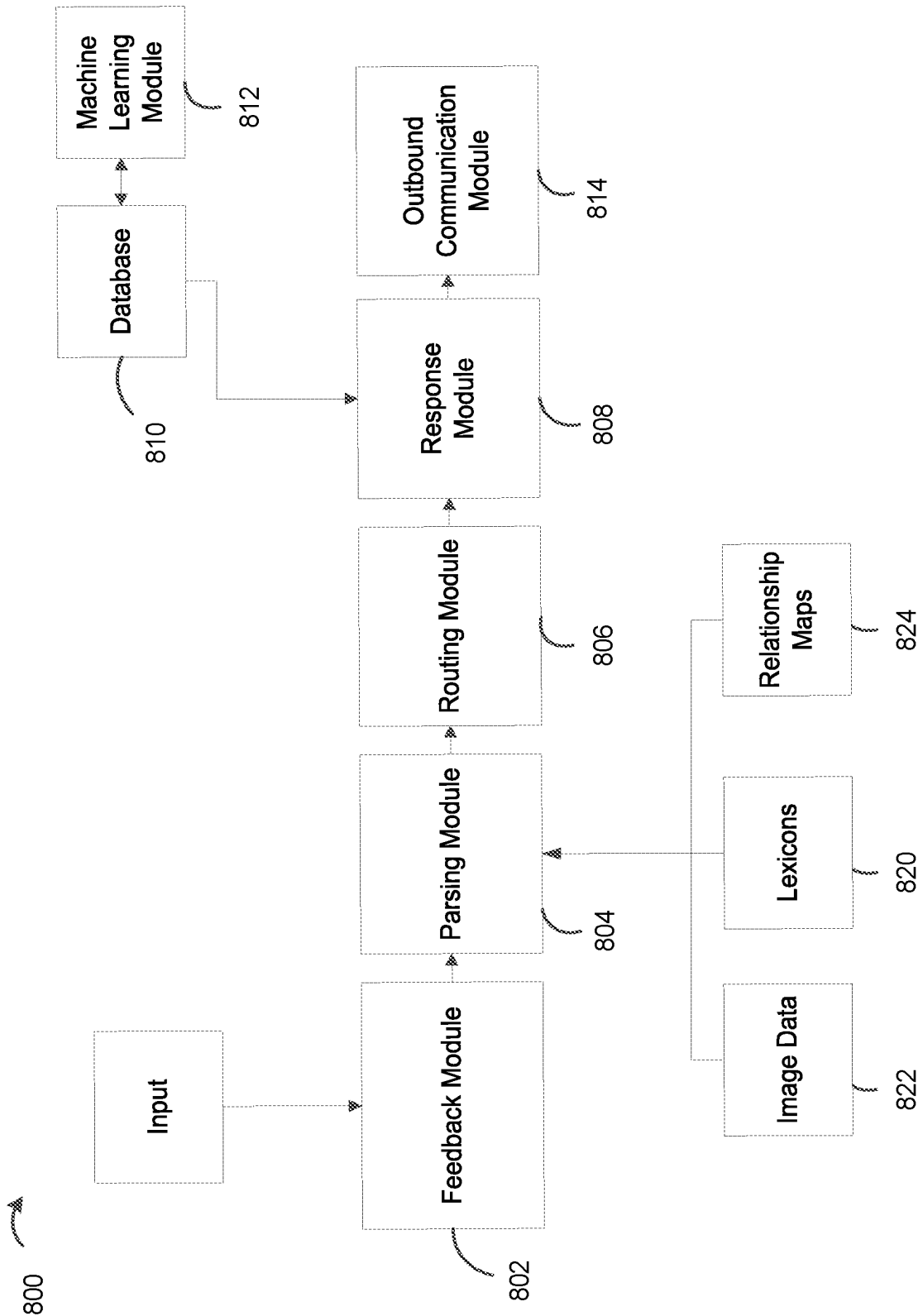


FIG. 8

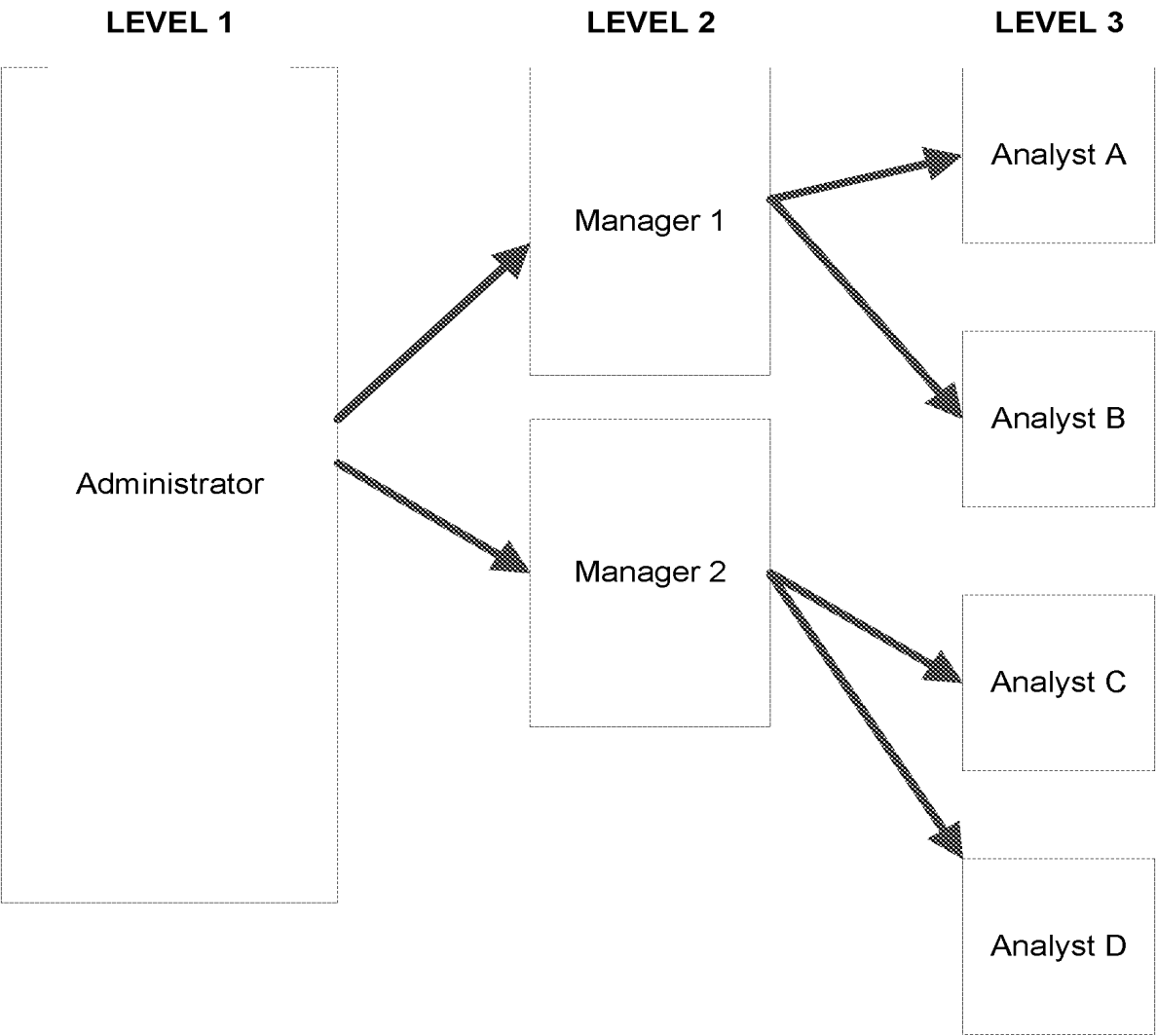


FIG. 9

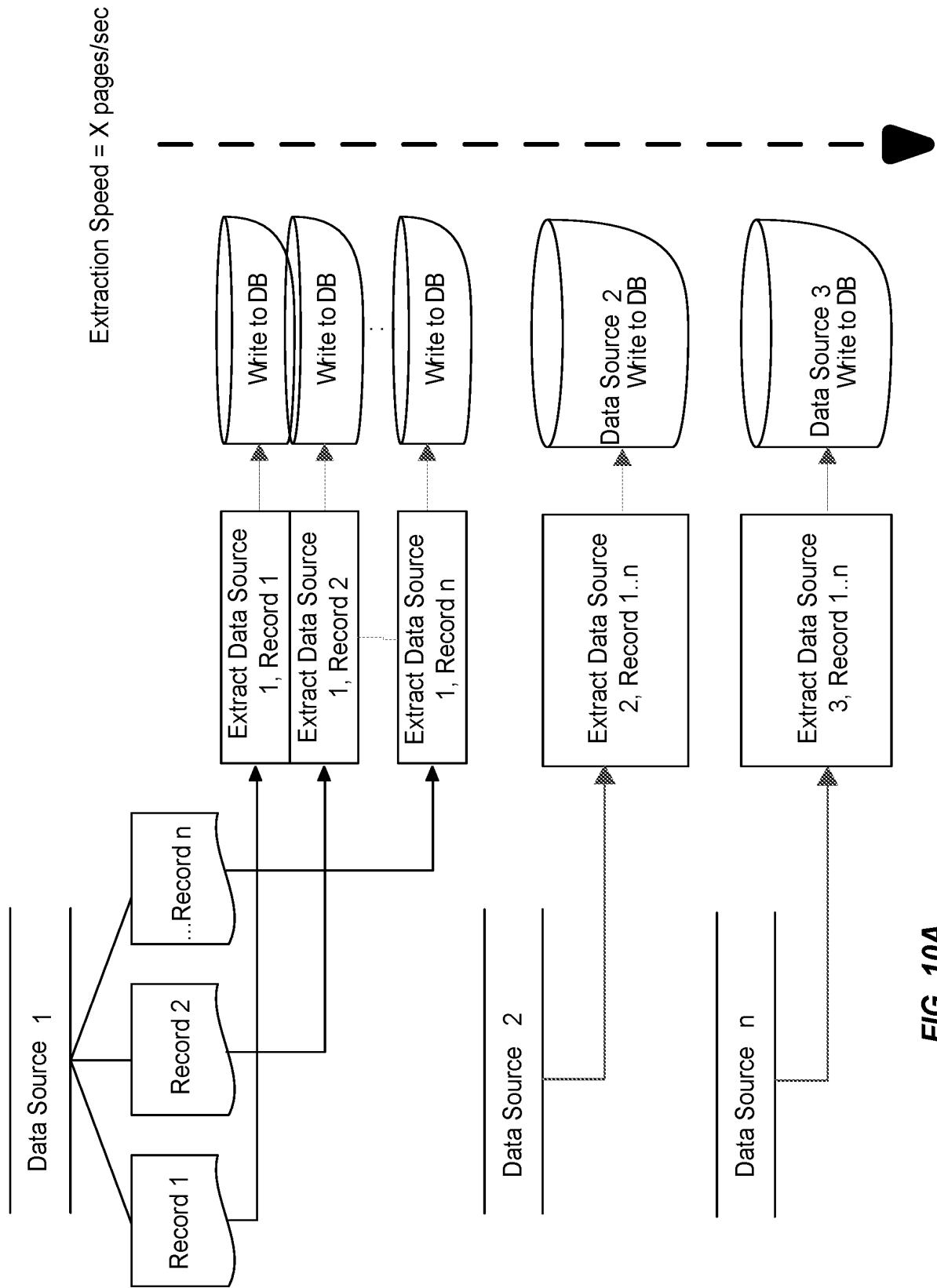


FIG. 10A
(PRIOR ART)

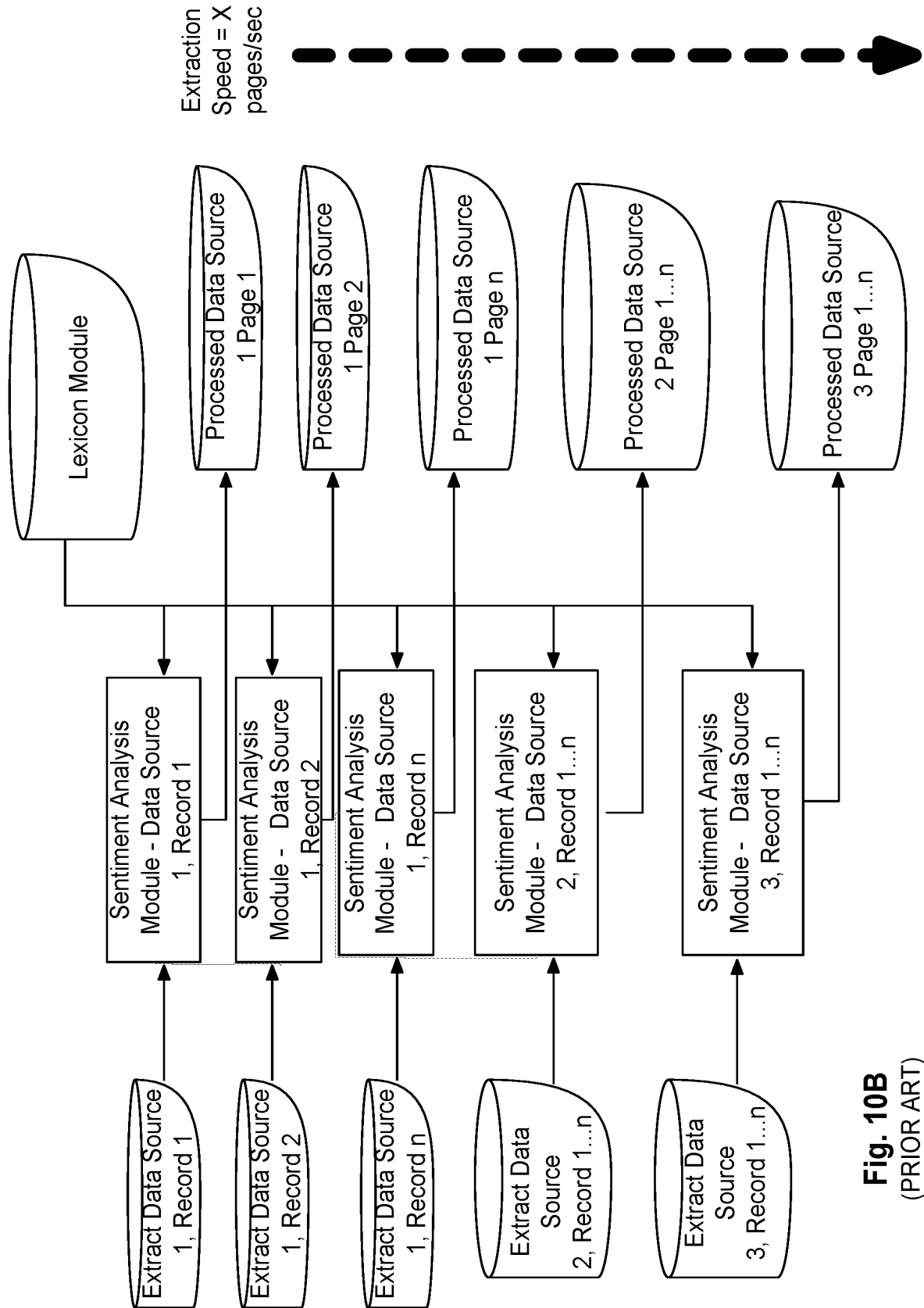


Fig. 10B
(PRIOR ART)

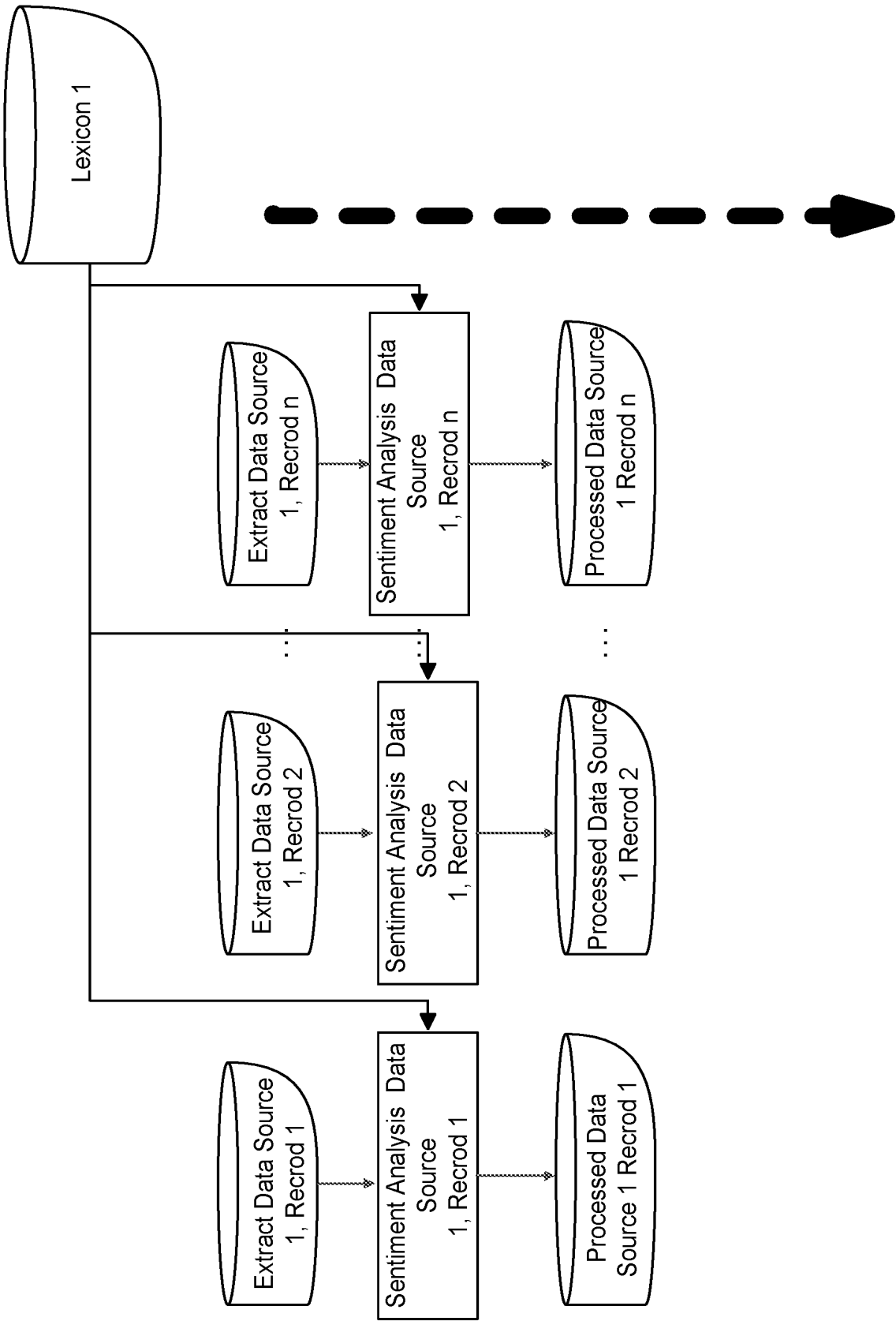


FIG. 10C

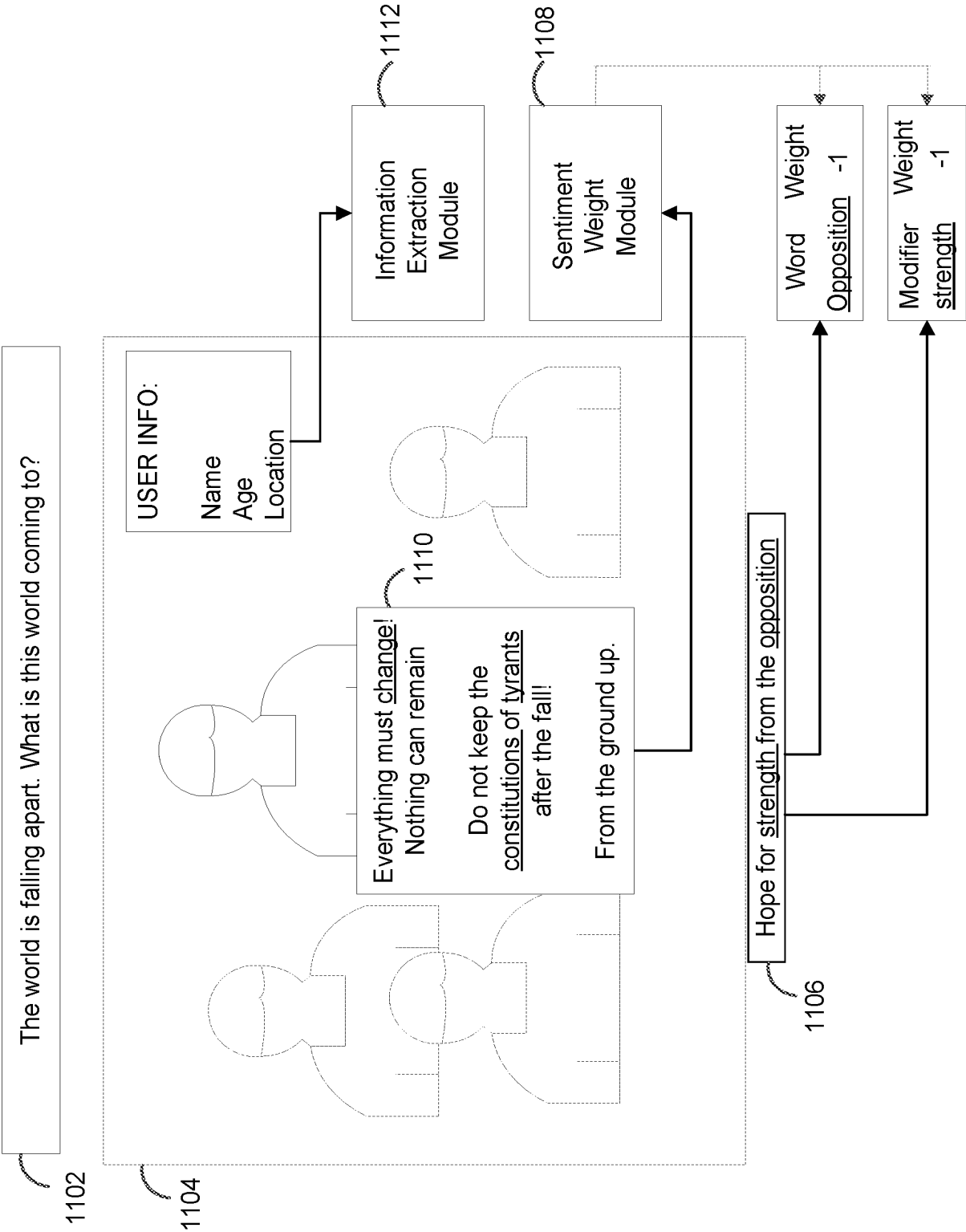


FIG. 11

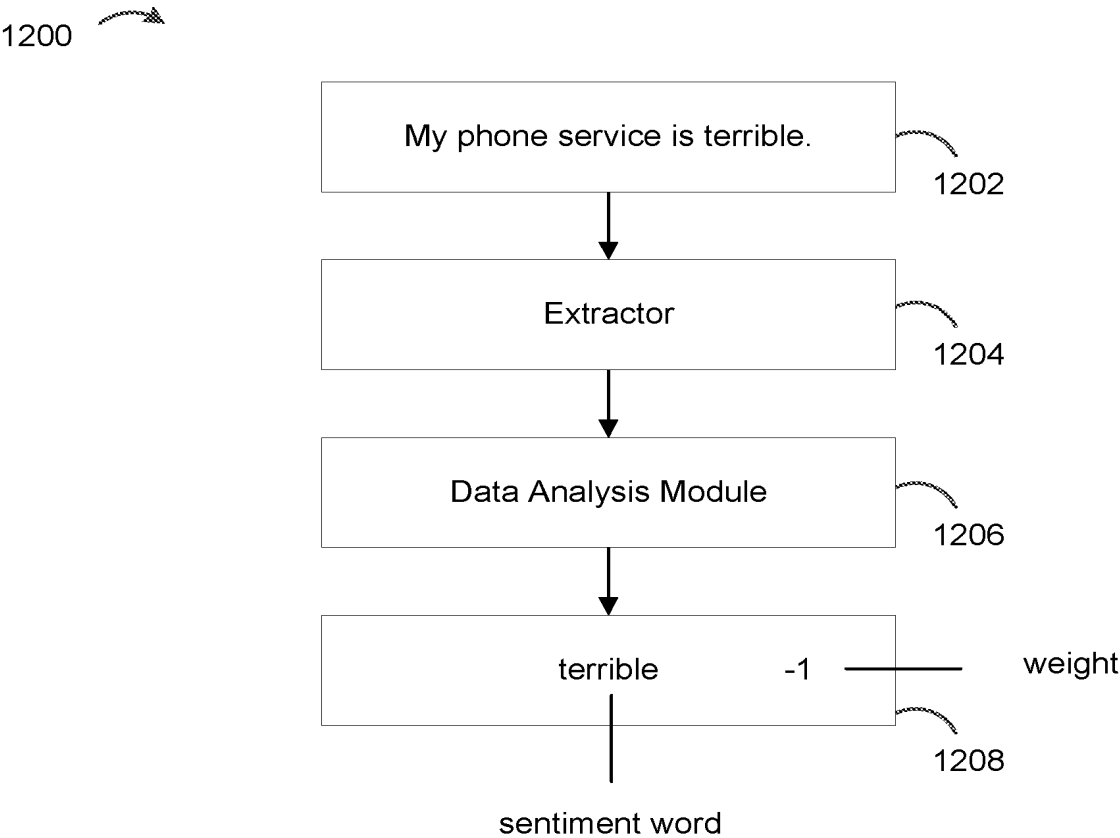
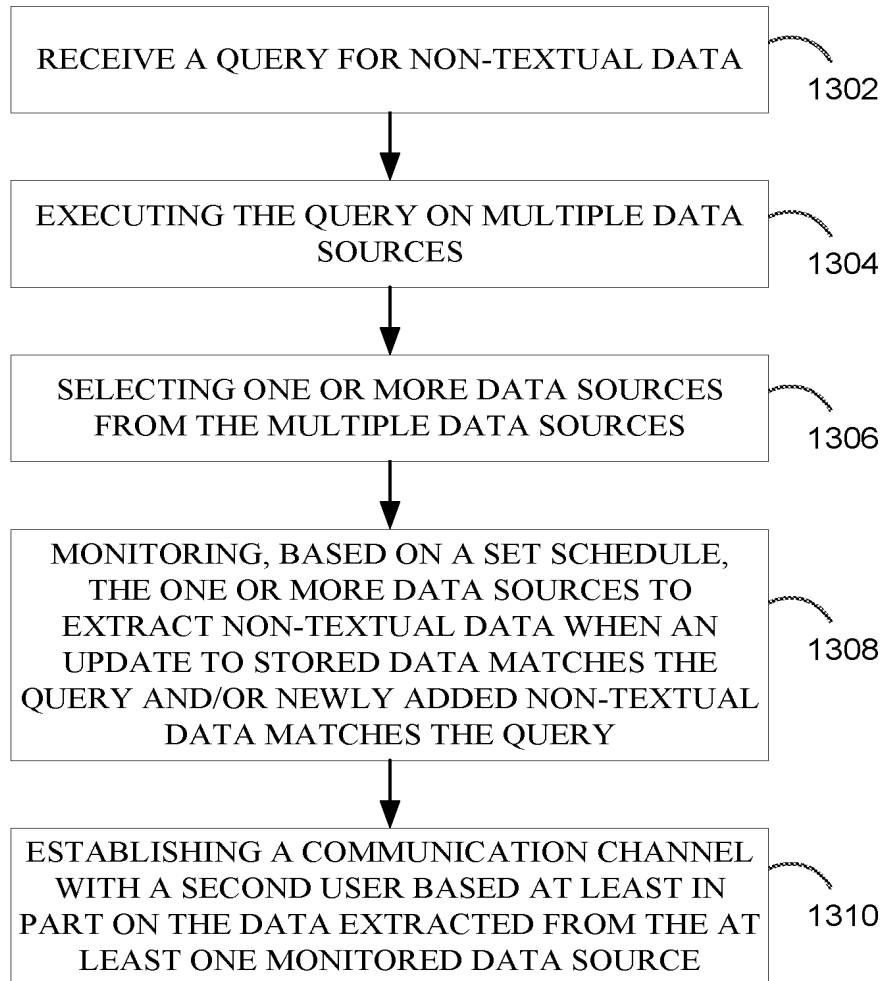


FIG. 12

1200 **FIG. 13**

ABSTRACT

A method of analyzing data is presented. The method includes receiving a query based for non-textual data, expanding search terms of the query, executing the query on one or more data sources, monitoring a specific data source selected from the one or more data sources. The monitoring is performed to monitor for matches to the query.

CLAIMS

WHAT IS CLAIMED IS:

1. A method of analyzing data, comprising:
 - receiving, from a first user, a query for non-textual data;
 - expanding search terms of the query;
 - executing the query on a plurality of data sources;
 - selecting at least one data source from the plurality of data sources, the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds;
 - monitoring, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and
 - establishing a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.
2. The method of claim 1, further comprising:
 - analyzing the extracted non-textual data; and
 - receiving feedback from the user based at least in part on the established communication channel.
3. The method of claim 2, further comprising visualizing at least the extracted non-textual data, the analyzed non-textual data, or a combination thereof.
4. The method of claim 1, in which expanding the query comprises expanding the search terms to include at least misspellings, synonyms, sub-topics, antonyms, or a combination thereof.
5. The method of claim 1, further comprising refining the search terms based at least in part on the executed query, and in which the monitoring is performed to monitor for matches to a refined query.

6. The method of claim 1, in which the plurality of data sources include open-source data sources that are publically available and closed-source data sources that are not publically accessible.
7. The method of claim 1, in which the query comprises at least a natural language query, a non-textual data query, or a combination thereof.
8. The method of claim 1, in which the non-textual data comprises at least one of an image, audio, a video, or a combination thereof.
9. The method of claim 1, in which the monitoring comprises deploying extractors to each of specific data source, a number of extractors being dynamic based at least in part on a traffic volume of each specific data source.
10. An apparatus for analyzing data, comprising:
 - a memory; and
 - at least one processor coupled to the memory, the at least one processor configured:
 - to receive, from a first user, a query for non-textual data;
 - to expand search terms of the query;
 - to execute the query on a plurality of data sources;
 - to select at least one data source from the plurality of data sources, the at least one data source being selected when results of the query are greater than or equal to an accuracy threshold;
 - to monitor, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and
 - to establish a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.
11. The apparatus of claim 10, in which the at least one processor is further configured:
 - to analyze the extracted non-textual data; and
 - to receive feedback from the user based at least in part on the established communication channel.

12. The apparatus of claim 11, in which the at least one processor is further configured to visualize at least the extracted non-textual data, the analyzed non-textual data, or a combination thereof.
13. The apparatus of claim 10, in which expanding the query comprises expanding the search terms to include at least misspellings, synonyms, sub-topics, antonyms, or a combination thereof.
14. The apparatus of claim 10, in which the at least one processor is further configured to refine the search terms based at least in part on the executed query, and in which the monitoring is performed to monitor for matches to a refined query.
15. The apparatus of claim 10, in which the plurality of data sources include open-source data sources that are publically available and closed-source data sources that are not publically accessible.
16. The method of claim 1, in which the query comprises at least a natural language query, a non-textual data query, or a combination thereof.
17. The apparatus of claim 10, in which the non-textual data comprises at least one of an image, audio, a video, or a combination thereof.
18. The apparatus of claim 10, in which the at least one processor is further configured to monitor by deploying extractors to each of specific data source, a number of extractors being dynamic based at least in part on a traffic volume of each specific data source.
19. A non-transitory computer-readable medium having program code recorded thereon for analyzing data, the program code executed by a processor and comprising:
- program code to receive, from a first user, a query for non-textual data;
 - program code to expand search terms of the query;
 - program code to execute the query on a plurality of data sources;

program code to select at least one data source from the plurality of data sources, the at least one data source being selected when results of the query are greater than or equal to an accuracy thresholds;

program code to monitor, based on a set schedule, the at least one data source to extract non-textual data from the at least one data source when at least an update to stored data matches the query, newly added non-textual data matches the query, or a combination thereof; and

program code to establish a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.

20. The non-transitory computer-readable medium of claim 19, in which the at least one processor is further configured:

to analyze the extracted non-textual data; and

to receive feedback from the user based at least in part on the established communication channel.

REAL-TIME AND ADAPTIVE DATA MINING

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application is a continuation-in-part of U.S. Patent Application No. 14/960,316, entitled “REAL-TIME AND ADAPTIVE DATA MINING,” filed on December 4, 2015, which is a continuation-in-part of U.S. Patent Application No. 13/928,313, entitled “REAL-TIME AND ADAPTIVE DATA MINING,” filed on June 26, 2013, now U.S. Patent No. 9,229,977 which claims the benefit under 35 U.S.C. § 119(e) to United States Provisional Patent Application No. 61/679,024 entitled “LOSS PREVENTION SERVICES PLATFORM BASED ON MACHINE LEARNING,” filed on August 2, 2012, the disclosures of which are expressly incorporated by reference herein in their entireties.

BACKGROUND

Field

[0002] Aspects of the present disclosure relate generally to data mining, and more particularly to providing a real-time data mining platform and interactive feedback platform.

Background

[0003] The Internet provides and generates large amounts of data on a daily basis. The data may be monitored from data sources, such as, but not limited to, social media, web feeds, customer feedback, internal company databases, and proprietary data silos. The data may include text, images, audio, or other types of data. With the proper tools, the data extracted from the data sources may be used to provide analysis for various topics. For example, the extracted data may indicate patterns for domestic unrest or a customer’s habits/patterns. More specifically, as an example, the extracted data may yield a consumers financial profile, retail history, social influences, and expressed interests.

[0004] Typical search engines are not designed for analyzing multiple data points in real time. Furthermore, the query of a search engine is limited to the exact search term. Moreover, a typical search engine is limited to querying indexed websites. That is, search engines are typically limited to searching structured data sources. By some accounts, nearly seventy percent of web pages are not indexed by search engines. The non-indexed web pages may be, for example, proprietary data silos, websites behind firewalls, and/or comment

sections on a web page. Accordingly, the information obtained via search engines is limited and is not desirable for real-time data analysis that is specified for automated data extraction.

[0005] Thus, as the demand for real-time information continues to increase, there exists a need for further improvements in data mining and web searching technologies. Preferably, these improvements should be applicable to all real-time data extraction technologies and the digital systems that employ these technologies.

SUMMARY

[0006] In one aspect of the present disclosure, a method for analyzing data is disclosed. The method includes receiving, from a first user, a query for non-textual data. The method also includes expanding search terms of the query. The method further includes executing the query on multiple data sources. The method still further includes selecting one or more data sources from the multiple data sources, the one or more data sources are selected when results of the query are greater than or equal to an accuracy thresholds. The method also includes monitoring, based on a set schedule, the one or more data sources to extract non-textual data from the one or more data sources when an update to stored data matches the query and/or newly added non-textual data matches the query. The method further includes establishing a communication channel with a second user based on the data extracted from one or more monitored data sources.

[0007] Another aspect of the present disclosure is directed to an apparatus including means for receiving, from a first user, a query for non-textual data. The apparatus also includes means for expanding search terms of the query. The apparatus further includes means for executing the query on multiple data sources. The apparatus still further includes means for selecting one or more data sources from the multiple data sources, the one or more data sources are selected when results of the query are greater than or equal to an accuracy thresholds. The apparatus also includes means for monitoring, based on a set schedule, the one or more data sources to extract non-textual data from the one or more data sources when an update to stored data matches the query and/or newly added non-textual data matches the query. The apparatus further includes means for establishing a communication channel with a second user based on the data extracted from one or more monitored data sources.

[0008] In another aspect of the present disclosure, a non-transitory computer-readable medium with non-transitory program code recorded thereon is disclosed. The program code

is for analyzing data. The program code is executed by a processor and includes program code to receive, from a first user, a query for non-textual data. The program code also includes program code to expand search terms of the query. The program code further includes program code to execute the query on multiple data sources. The program code still further includes program code to select one or more data sources from the multiple data sources, the one or more data sources are selected when results of the query are greater than or equal to an accuracy thresholds. The program code also includes program code to monitor, based on a set schedule, the one or more data sources to extract non-textual data from the one or more data sources when an update to stored data matches the query and/or newly added non-textual data matches the query. The program code further includes program code to establish a communication channel with a second user based on the data extracted from one or more monitored data sources.

[0009] Another aspect of the present disclosure is directed to an apparatus for analyzing data. The apparatus having a memory and one or more processors coupled to the memory. The processor(s) is configured to receive, from a first user, a query for non-textual data. The processor(s) is also configured to expand search terms of the query. The processor(s) is further configured to execute the query on multiple data sources. The processor(s) still further configured to select one or more data sources from the multiple data sources, the one or more data sources are selected when results of the query are greater than or equal to an accuracy thresholds. The processor(s) is also configured to monitor, based on a set schedule, the one or more data sources to extract non-textual data from the one or more data sources when an update to stored data matches the query and/or newly added non-textual data matches the query. The processor(s) is further configured to establish a communication channel with a second user based on the data extracted from one or more monitored data sources.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The features, nature, and advantages of the present disclosure will become more apparent from the detailed description set forth below when taken in conjunction with the drawings in which like reference characters identify correspondingly throughout.

[0011] FIGURE 1 is a diagram illustrating a call flow for a data mining system according to an aspect of the present disclosure.

[0012] FIGURE 2 is a block diagram for a data mining system according to an aspect of the present disclosure.

[0013] FIGURE 3 illustrates various data visualization schemes according to aspects of the present disclosure.

[0014] FIGURES 4, 5A, 5B, 6, 7, and 8 are block diagrams for a data mining system according to aspects of the present disclosure.

[0015] FIGURE 9 illustrates a hierarchy of security rights according to an aspect of the present disclosure.

[0016] FIGURES 10A and 10B illustrate typical sequential data extraction schemes.

[0017] FIGURE 10C illustrates a parallel data extraction scheme according to an aspect of the present disclosure.

[0018] FIGURES 11 and 12 illustrate examples of data extraction and analysis according to an aspect of the present disclosure.

[0019] FIGURE 13 illustrate a flow diagram of a method for analyzing data according to aspects of the present disclosure.

DETAILED DESCRIPTION

[0020] The detailed description set forth below, in connection with the appended drawings, is intended as a description of various configurations and is not intended to represent the only configurations in which the concepts described herein may be practiced. The detailed description includes specific details for the purpose of providing a thorough understanding of the various concepts. It will be apparent to those skilled in the art, however, that these concepts may be practiced without these specific details. In some instances, well-known structures and components are shown in block diagram form in order to avoid obscuring such concepts.

[0021] Based on the teachings, one skilled in the art should appreciate that the scope of the present disclosure is intended to cover any aspect of the present disclosure, whether implemented independently of or combined with any other aspect of the present disclosure. For example, an apparatus may be implemented, or a method may be practiced using any

number of the aspects set forth. In addition, the scope of the present disclosure is intended to cover such an apparatus or method practiced using other structure, functionality, or structure and functionality in addition to, or other than the various aspects of the present disclosure set forth. It should be understood that any aspect of the present disclosure may be embodied by one or more elements of a claim.

[0022] The word “exemplary” is used herein to mean “serving as an example, instance, or illustration.” Any aspect described herein as “exemplary” is not necessarily to be construed as preferred or advantageous over other aspects.

[0023] Although particular aspects are described herein, many variations and permutations of these aspects fall within the scope of the present disclosure. Although some benefits and advantages of the preferred aspects are mentioned, the scope of the present disclosure is not intended to be limited to particular benefits, uses or objectives. Rather, aspects of the present disclosure are intended to be broadly applicable to different technologies, system configurations, networks, and protocols, some of which are illustrated by way of example in the figures and in the following description of the preferred aspects. The detailed description and drawings are merely illustrative of the present disclosure rather than limiting, the scope of the present disclosure being defined by the appended claims and equivalents thereof.

[0024] As discussed, various contributors generate large amounts of data on the Internet. The data may be monitored from data sources, such as, but not limited to, social media, web feeds, customer feedback, internal company databases, and proprietary data silos. The data may include text, images, audio, or other types of data. With the proper tools, the data extracted from the data sources may be used to provide analysis for various topics. For example, the extracted data may indicate patterns for domestic unrest or a customer’s habits/patterns. More specifically, as an example, the extracted data may yield a consumers financial profile, retail history, social influences, and expressed interests.

[0025] Conventional search engines do not analyze multiple data points in real time. Furthermore, some conventional search engines are limited to analyzing text-based data. Additionally, the query of a conventional search engine is limited to the exact search term. Finally, a conventional search engine is limited to querying indexed websites. Accordingly, the information obtained via conventional search engines is limited and is not desirable for real-time data analysis of non-textual data.

[0026] Aspects of the present disclosure are directed to a data mining system for identifying textual and/or non-textual data in substantially real time. The identified data may be analyzed to determine sentiment or other aspects associated with the data. For simplicity, aspects of the present disclosure are presented with the non-textual data being an image. Still, the non-textual data may include video, audio, or other types of data.

[0027] FIGURE 1 is a diagram illustrating a call flow for a data mining system 100 according to an aspect of the present disclosure. At block 102 a query is generated. The query may be a natural language query generated by a user. Alternatively, the query generation may be automated from a query generator. The query generator may be based on artificial intelligence or a similar system. The query may be a textual query, such as “find people that go to the beach.” Additionally, or alternatively, the query may be non-textual. For example, the query may include an image of a beach. In this example, the query is used to find images of a beach and/or people with images at the beach.

[0028] At block 104 the query is expanded. In one configuration, the search terms of the query are expanded based on search lexicons. For example, the lexicons may be applied to expand the search using misspellings and derivations of the topic of interest/sub-topics. The lexicon may be generated based on user input and/or may be generated based on automatic word association, such as synonym/antonym trees and lexicons of positive and/or negative modifiers. The expansion of the query at block 104 may be performed by a user and/or may be automated.

[0029] As another example, if the query is a non-textual query, the query is expanded to similar data. For example, if one picture of the beach is used as the query, the query is expanded to use various beach images. The beach images may be previously stored or retrieved as needed.

[0030] At block 106, the query is executed. The query may be executed on open-source data and proprietary data. Specifically, in one configuration, the query may be limited to specific data sources (e.g., proprietary data sources and open-source data sources). In another configuration, the query searches all available data sources. In yet another configuration, the initial pass of the query is limited to open-source data sources.

[0031] Open-source data refers to publicly available data, such as data available via Wikipedia or the CIA factbook, for example. Sources that are indexed by search engines are also considered open-source data. Open-source data may also refer to data that is not

proprietary but still not indexed by a search engine. For example, some sources, such as a blog, may include a comments section. The comments may be updated in real time and are typically not indexed by a search engine. Thus, because the comments are not indexed by a search engine, the contents of the comments are not available when conducting a search. Still, the information in the comments is publically available to anyone that visits a particular source. Therefore, the comments section, or any other non-indexed source, may be considered open-source data.

[0032] Proprietary data is data that may not be searchable via a search engine because the proprietary data is not publically available. This may include classified databases, data behind a firewall, or data that is available via a paid subscription, such as Lexis.

[0033] At block 108 the results of the query are reviewed. If the results are satisfactory, specific data sources may be selected to be monitored. If the results are not satisfactory, the query may be expanded and/or refined at block 104. The refinement of the query may be refined based on data sources selected at block 108. At block 110 the selected data sources are monitored. The monitoring may be performed by data extractors that monitor changes to a data source in real-time. When information at the data sources is updated or located to match the query terms, a data extractor extracts the data to be analyzed at block 112. In one configuration, a quality control analysis may also be performed on the extracted data (not shown). After analyzing the data, the extracted data may be visualized at block 114.

[0034] Additionally, after the data has been analyzed, at block 116, a communication channel may be established with specific individuals and/or other users based on the analyzed data. For example, if the data analysis reveals that a customer may be planning a trip to another country, the data mining system 100 may engage the customer to discuss cell phone data roaming plans and/or other services that may be desired by a customer that is traveling to another country. Furthermore, at block 118, customers and/or users may provide feedback. That is, the customers may provide feedback to the system via a pre-defined communication channel, such as a message board, phone, SMS, or email. The feedback is analyzed at block 112 to determine customer sentiment. Furthermore, in addition to or separate from the open forum, the feedback may also be generated based on the communication channel established at block 116.

[0035] In another configuration, the communication channel of block 116 may be established after the extracted data has been visualized at block 114. It should be noted, the

communication channel of block 116 and the visualization of block 114 may be established in parallel or independently. Furthermore, in one configuration, the feedback received at block 118 may be visualized in block 114.

[0036] FIGURE 2 illustrates a data mining system 200 according to an aspect of the present disclosure. Those of skill would further appreciate that the various illustrative modules of FIGURE 2 may be implemented as electronic hardware, computer software, or combinations of both. To clearly illustrate this interchangeability of hardware and software, various illustrative components, blocks, modules, circuits, and steps have been described above generally in terms of their functionality. Whether such functionality is implemented as hardware or software depends upon the particular application and design constraints imposed on the overall system. Skilled artisans may implement the described functionality in varying ways for each particular application, but such implementation decisions should not be interpreted as causing a departure from the scope of the present disclosure.

[0037] The data mining system 200 may include a query module 202 for generating a query. As discussed above, in one configuration, a query is generated for searching specific data sources. In one configuration, the query is a natural language query. For example, the natural language query may be "I want to know the sentiment of wireless phone customers." The query represents a topic of interest (TOI), for example, the topic of interest may be a person, such as Michael Jackson, an event, such as the Arab Spring, a service, such as wireless phone, and/or any other informational element that may be queried. As another example, the query may be a non-textual query. For example, the query may be an audio clip used to find similar audio clips. As another example, the query may be an image used to find similar images.

[0038] The data sources may include websites, private databases, public databases, and/or any data source that may be electronically accessed. Furthermore, the query may further specify the parties that hold the opinion, such as the author of the content. Thus, in one configuration, the query may specify the sources of the data, such as URLs, websites of specific countries, and/or internal/external data silos. Furthermore, the query may further specify the author of the specified data sources, such as mainstream media, bloggers, user comments, and/or social media.

[0039] Furthermore, in one configuration, the query may be specified for a specific time frame. The time frame may be a specific time frame of the past, a time frame of the future, or

a specific interval. For example, the query may only apply to events that occurred in the summer of 2012. As another example, the query may be generated to run in three months from the date of origin for the query.

[0040] In one configuration, after generating the query, open-source data is mined using the topic of interest and sub-topics. Sub-topics refer to topics related to the topic of interest. For example, for the query "I want to know the sentiment of wireless phone customers," the topic of interest may be a specific wireless provider and/or "wireless phone customers." Furthermore, in the present example, the sub-topics may be "iPhone customers" and "wireless customers." The open-source data refers to data that is generally available to the public. For example, data that is not deemed classified by a sovereign entity may be one source of open-source data. Open-source data may also include, but is not limited to, data available via a website, a database, and/or a really simple syndication (RSS) feed.

[0041] After mining the open-source data using the topic of interest and sub-topics, the query parameters (e.g., search parameters) may be expanded and/or further processed. That is, during the initial query generation, the user defines the scope of the query. Specifically, the user determines, to the best of their ability, the topics of interest and their sub-topics. After the query is executed, the user may find unintended search results. Some of the unintended search results may be false positives, while others may be relevant to the context of the query. Consequently, the user may add additional items to the topics of interest and/or sub-topics based on the unintended search results.

[0042] According to one aspect of the present disclosure, the query expansion and/or further processing may be performed in the query module 202. Alternatively, the query expansion and/or further processing may be performed in a module that is separate from the query module 202 (not shown).

[0043] In one configuration, a lexicon is applied to expand on the search parameters. The lexicon may be applied prior to the initial search and/or during the query expansion phase. The lexicon may also include misspellings and derivations of the topic of interest/sub-topics. The lexicon may be generated based on user input and/or may be generated based on automatic word association, such as synonym/antonym trees and lexicons of positive and/or negative modifiers.

[0044] As an example, for the query "Arab spring," the lexicon may be applied to expand the search to include relevant search terms such as, for example, "revolution," and/or

“unrest.” In this example, the lexicon may also apply misspellings, such as “srping,” to the search terms.

[0045] The expanded query is run on the data sources and the results are analyzed via a results module 204. The expanded query may be performed across meta-data for the web. Furthermore, in addition to, or separate from the meta-data search, in one configuration, the query is also performed on the selected data sources. If the results of the query are deemed satisfactory, data extractors are generated to monitor one or more of the specified data sources. That is, the results of the query are reviewed by a user, after reviewing the results, one or more of the data sources are selected based on the accuracy of the search results. The user may also select or exclude data sources that are false positives. False positives refer to data sources that are not relevant to the topic of interest but are still returned because the data source matches the query.

[0046] For example, the topic of interest for a query may be “Arab Spring,” and the results may include topics that are not related to the topic of interest (e.g., false positives). In this example, a search for a search of “Arab spring” may have generated false positive search results such as “Arab spring water” or sources related to the spring season in the Middle East. Accordingly, sources related to these false positives may be excluded from further iterations of the search. Moreover, sources specifically related to the Arab Spring uprisings may be selected by the user based on their accuracy.

[0047] As another example, the topic of interest for a query may be “people that visit the beach.” The query may be text-based and/or non-text based. For example, an image of a person at the beach may be used for the query. In one example, the query may be generated by a user intending to sell beach related products, such as beach chairs, towels, sun-screen, etc., to beachgoers. In this example, a search for images of a person at the beach may generate false positive search results such as sources related to people engaging in a beach clean-up or a painter that paints beach images. Although the sources are related to “people that visit the beach” and/or images of the beach, the sources may not be the intended customers for the user. The sources related to these false positives may be excluded from further iterations of the search. The sources related to people that visit the beach for recreation may be selected by the user based on their accuracy.

[0048] Once the specific data sources have been selected, data extractors are deployed to monitor the specific data sources. In one configuration, when the results of the query do not

yield results that are satisfactory to the user, the query is further refined until the desired results are obtained.

[0049] The data mining system 200 may include a data extractor module 206 for deploying data extractors. The data extractors may be referred to as extractors. Extractors refer to applications that monitor and extract data from user-specified locations or sources of interest (e.g., data source). That is, upon deployment, the extractors extract the data from a given source for analysis. Moreover, until terminated, the extractors are maintained at the data source to monitor for any changes to the data. The data changes are analyzed for a match to the keywords of the query and the data is transmitted to a data analysis module when there is a match.

[0050] In some cases, the extractors may be bots or crawlers. The number of extractors deployed for a data source may be dynamic. In one configuration, the number of data extractors deployed for a data source increases when the activity on the data source increases. For example, if extractors are deployed on a social media source to follow a current event, such as the elections, the number of extractors may increase during times when traffic for the election increases. In this example, the social media traffic may increase during flashpoints of a campaign, such as primaries, debates, and/or election night.

[0051] In one configuration, after a data source has been identified, the content of the data source is extracted based on a schedule. For example, a user may identify a blog as a data source. Moreover, the identified blog may have multiple authors. Still, the user may specify to only extract posts by a first author, rather than all of the authors. The user may also set a schedule for the extractor to determine if there is new content from the first author. The schedule may be once a week, hour, month, minute, or other time. The extractor may extract the content to determine if there is new content. After determining that there is new content, the content will be transmitted to the data mining system. In this configuration, prior to deploying the extractor, the first author is identified as a topic of interest for the query. The extractor determines the identified topics of interest in external data sources such as social media, websites, proprietary data silos, and transmits the data to the data mining system for analysis.

[0052] Data is extracted when the extractor detects a relevant post. A relevant post refers to data on the data source that matches the query and/or keywords of the query. The extracted data may be cataloged and stored on a database in a data analysis module 208. The

data may also be connected to terrestrial feature markers. The data that is stored in the database may be transmitted to a data analytics module for sentiment analysis, indexing, and/or pattern detection. Archived data is kept for each data source that is monitored.

[0053] In one configuration, sentiment analysis is performed on the extracted data. The sentiment analysis may language agnostic so that analytics may be performed in any native language, such as, for example, Arabic, Chinese, or Persian. The data analysis may also perform pattern detection, document classification, and sentiment analysis on both structured and unstructured datasets. Additionally, an analysis lexicon may be applied to the sentiment analysis.

[0054] Specifically, the data analysis module 208 may further analyze the data via linguistic patterns to determine the sentiment. That is, via the analysis lexicon, the data is processed using both a clausal and individual word level in English and/or the native language of the data. In one configuration, the data may be processed via successive passes. Numerical values may be assigned to denote sentiment. The sentiment may refer to whether the data is for or against a specific topic.

[0055] In one configuration the numerical values for the sentiment provide a specific range of numerical value to denote the strength of the sentiment. Positive sentiment may be given a value from 1 to X, 1 being the lowest value for a positive sentiment while X denoting the highest sentiment value. Additionally, negative sentiment may be given a value from -1 to -Y, -1 being the lowest value for a negative sentiment while -Y denoting the highest sentiment value.

[0056] The data mining system 200 may include a data visualization module 210 for visualizing data. The visualized data may be based on the data that is analyzed in the data analysis module 208. That is, in one configuration, the data is visualized to display sentiment patterns across datasets. The visualization may be temporal and/or spatial. Furthermore, the visualized data may be exported so that a user may directly manipulate the results.

[0057] Additionally, data mining system 200 may include a customer communication module 212 for establishing a communication channel with customers and/or other users based on the analyzed data. As discussed above, in one example, if the data analysis reveals that a customer may be planning a trip to another country, the data mining system 200 may engage the customer to discuss cell phone data roaming plans and/or other services that may be desired by a customer that is traveling to another country.

[0058] Furthermore, the data mining system 200 may include a customer feedback module 214 for customers and/or users to provide feedback. In one configuration, the feedback is based on an open forum, such as a message board, for the customers to provide feedback to the system. The feedback is analyzed at the data analysis module 208 to determine customer sentiment. Furthermore, in addition to or separate from the open forum, the feedback may also be generated based on the communication channel established via the customer communication module 212.

[0059] In another configuration, the communication channel of the customer communication module 212 may be established after the extracted data has been visualized via the data visualization module 210. Furthermore, in one configuration, the feedback received via the customer feedback module 214 may be visualized at the data visualization module 210.

[0060] FIGURE 3 illustrates examples of data visualization according to aspects of the present disclosure. In one configuration, the data visualization is a sentiment heat map 308. That is, as shown in the sentiment heat map 308, the data may be visualized to show flashpoints for the extracted data. For example, if the topic of interest is “earthquakes,” the heat map may show the areas in the world that have the most activity on the topic of interest. The heat map is not limited to a world map and may be visualized for any region.

[0061] In another configuration, the data visualization is a bar graph 302 for the sentiment over time. As previously discussed, the analyzed sentiment may be assigned a numerical value. Accordingly, the numerical value for the sentiment may be plotted over time and visualized as shown in the bar graph 302. For example, the topic of interest may be “alternative energy,” and the visualization of the bar graph 302 may show a specific group’s sentiment towards alternative forms of energy over time. In another configuration, the data visualization is pie chart 304 and/or a plot graph 306.

[0062] The data visualization is not limited to the schemes shown in FIGURE 3, the data may be visualized via any desired scheme, such as, but not limited to Calendars, Box Plots, Bubble Charts and variations thereof, Bullet Charts, Chord Diagrams, Cartograms, Dendograms, Network Diagrams, Streamgraphs, Bar Graphs and variations thereof, Tree diagrams, maps, and variations thereof, Line graphs, Maps, Hierarchical Edge Bundling, Scatterplots and Scatterplot Matrices, Sankey diagram, Cluster maps and diagrams, Co-occurrence Matrices, Sunburst charts, Beziers, Word clouds, Heat maps, Timelines, Donuts

and Pie charts, and/or Area charts. Moreover, the aforementioned visualizations may be based on dynamic factors, such as, but not limited to force directed movements, time elapse, pattern acceleration, and/or volume. More specifically, the data visualization may be specified to show relationships, variations, anomalies, trends, patterns, pinpoints, ranges, and/or actuals in the target data. It should be noted that the visualization options are configurable by the user and may vary based on the deployment domain and goal of the data mining system.

[0063] FIGURE 4 is a conceptual data flow diagram illustrating the data flow between different modules/means/components in an exemplary query module 400 according to an aspect of the present disclosure. In one configuration, the data flow between different modules/means/components of the query module 202 is similar to the data flow between different modules/means/components of the query module 400.

[0064] As shown in FIGURE 4, query module 400 includes a query setup module 402 for creating a query. The query setup module 402 may receive query elements 406 via an input. The query elements 406 may specify the topic of interest and subtopics of interest. The query elements 406 may be an image, text (e.g., natural language query), or another type of input, such as audio. In one configuration, the query elements 406 are input by a user and/or automatically generated via a query module (not shown).

[0065] The query module 400 also includes a lexicon module 404 for applying lexicon elements to the query elements 406 received at the query setup module 402. In one configuration, the lexicon elements are applied to the query elements 406 at the query setup module 402. Alternatively, the query setup module 402 may transmit the query elements 406 to the lexicon module 404 so that the lexicon elements may be applied to the query elements 406.

[0066] As discussed above, the lexicon elements may expand the query elements 406. For example, the query may be a text query “find people at a beach.” As another example, the query may be an image of a person at a beach during the daytime. For the above example, the lexicon module 404 may expand the query elements 406 to include additional related queries, such as “find images of people at white sand beaches, at the black sand beaches, during sunrise, during sunset, etc.” That is, lexicon module 404 expands the query to other expressions of the same classification. The expanded query may be additional text queries, image queries, or other types of data queries.

[0067] As discussed, in one configuration, for a query, the lexicon is applied to expand the search to include relevant search terms. The lexicon may also apply misspellings and derivations of the topic of interest/sub-topics. The lexicon may be generated based on user input and/or may be generated based on automatic word association, such as synonym/antonym trees and lexicons of positive and/or negative modifiers.

[0068] The query module 400 also includes a language translator 408 for translating the query elements 406 received at the query setup module 402. The language translator 408 may translate the query elements 406 and/or the results from English to another language, and vice versa. After applying the lexicon via the lexicon module 404 and translating the query elements 406 (if necessary), the query setup module 402 transmits the query to the natural language processor 410. In one configuration, the natural language processor 410 converts the query elements 406 to system-understood operations, such as Boolean operations.

[0069] When an image query is specified, the image engine 420 may receive one or more inputs from the lexicon engine 404, query setup module 402, and/or language translator 408. Additionally, or alternatively, the image engine 420 directly receives the query elements 406. The image engine 420 may be a neural network, such as a deep convolutional neural network. Based on training, the image engine 420 converts the query to a machine translation for a set of features of the query. The features may include parameters, shapes, edges, etc., related to the query.

[0070] In one configuration, for an image query, the user may specify whether the search is for a match to an item in the image, a match for items/elements similar to those found in the image. For example, if the image is an image of the Statue of David, the user may indicate that the search should return other images of the Statue of David. As another example, if the image is an image of the Statue of David, the user may indicate that the search should return other images of statues, including, but not limited to, the Statue of David.

[0071] According to aspects of the present disclosure, upon generating the set of features, the image engine 420 transmits the set of features to a search module 412. For simplicity, the set of features transmitted to the search module may be referred to as query elements 406. In one configuration, the search module 412 distributes the query elements 406 to search data sources. In one configuration, the data sources are defined by a user and are received at the search module 412 via a signal 416. Alternatively, the data sources may also be specified in

the query elements 406 received at the search module 412. Results of the search are transmitted to the results module 414. The results module 414 may sort the results and display the results to the user. In one configuration, the user may select the desired results to be stored in memory. The user may select the desired results based on the accuracy of the results and/or the information provided in the results. In one configuration, the results module 414 may be separate from the query module 400. According to an aspect of the present disclosure, the selected results are transmitted to a refinement module 418.

[0072] FIGURE 5A is a conceptual data flow diagram illustrating the data flow between different modules/means/components in an exemplary refinement module 500 according to an aspect of the present disclosure. In one configuration, the refinement module 500 may be included in the query module 400. Still, in the present example, the refinement module 500 is distinct from the query module 400. Nonetheless, in the present configuration, the refinement module 500 uses some of the elements of the query module 400.

[0073] As shown in FIGURE 5A, the selected results from the results module 502 may be transmitted to the lexicon updating module 504. As previously discussed, at the results module 502, the user selects relevant results for processing (e.g., calibration). That is, the user may judge the results for accuracy based on the intent of the query. Based on the results selected from the query, the data mining system may refine the lexicons and the query elements.

[0074] More specifically, a search for a topic of interest may yield a plethora of results. Some results may be relevant to the search while others may be false positives. Accordingly, by understanding the data sources that are relevant to the user, the system may further refine to search terms so that a more focused search may be performed in future iterations.

[0075] Thus, the lexicon updating module 504 adjusts the lexicons based on the results selected by the user. The lexicon updating module 504 may transmit the results to the search module 506 to perform another search with the updated lexicons. Additionally, the lexicon engine 508 may also be updated with the updated lexicons of the lexicon updating module 504. The lexicon engine 508 may receive the updated lexicons from the search module 506 and/or the lexicon updating module 504. The refinement module 500 may run in a loop until the search results reach the desired results threshold. In one configuration, once the desired results have been received via the search module 506, the results module 502 transmits the results to a data analysis module 510.

[0076] FIGURE 5B is a conceptual data flow diagram illustrating the data flow between different modules/means/components in another example of a refinement module 550 according to an aspect of the present disclosure. In one configuration, the refinement module 550 may be included in the query module 400. Still, in the present example, the refinement module 550 is distinct from the query module 400. Nonetheless, in the present configuration, the refinement module 550 uses some of the elements of the query module 400.

[0077] As shown in FIGURE 5B, the selected results from the results module 552 may be transmitted to the image updating module 554. As previously discussed, at the results module 552, the user selects relevant results for processing (e.g., calibration). That is, the user may judge the results for accuracy based on the intent of the query. Based on the results selected from the query, the data mining system may refine the images, the query elements, and/or the lexicon used to expand the query terms. The query elements may refer to the features used to identify images.

[0078] More specifically, a search for a topic of interest may yield a plethora of results. Some results may be relevant to the search while others may be false positives. Accordingly, by understanding the data sources that are relevant to the user, the system may further refine to search terms so that a more focused search may be performed in future iterations.

[0079] Thus, the image updating module 554 adjusts the images based on the results selected by the user. The image updating module 554 may transmit the results to the search module 556 to perform another search with the updated images and/or features. Additionally, the image engine 558 may also be updated with the updated images of the image updating module 554. The image module 558 may receive the updated images from the search module 556 and/or the image updating module 554. The refinement module 550 may run in a loop until the search results reach the desired results threshold. In one configuration, once the desired results have been received via the search module 556, the results module 552 transmits the results to a data analysis module 560.

[0080] FIGURE 6 is a conceptual data flow diagram illustrating the data flow between different modules/means/components in an exemplary data analysis module 600 according to an aspect of the present disclosure. As shown in FIGURE 6, the data analysis module 600 includes a pre-processing module 602 that pre-processes the received data. The data may include results found by the extractors. That is, the data from the extractors may include data generated during the first pass of a search in addition to data from subsequent passes. More

specifically, the data from subsequent searches may be refined and/or expanded based on the modification of the query. Moreover, the results obtained from the extractors may be time stamped, or given a unique identifier, so that the data of each pass is distinguishable from data of other passes.

[0081] In some cases, the data may be in various formats. For example, data extracted from a website may be different from data extracted from a database. Therefore, the preprocessing 602 may normalize the data to a desired format. After normalizing the data, the pre-processing module transmits the processed data to the data analysis module 604. The data may include text, images, audio, or other types of data.

[0082] The data analysis module 604 may use various functions to analyze the normalized data. In one configuration, the data analysis module 604 includes a user-generated function module 606, a machine learning module 608, a lexicon based matching module 610, an image data module 630, and a predictive module 612. In one configuration, the user-generated function module 606 executes a function specified by the user. The machine learning module 608 may detect patterns in the data and the patterns may be applied to future data. The lexicon based matching module 610 finds keywords and/or indexes in the body of the data. The predictive module 612 determines patterns in previous data and applies a probability for an occurrence of an event based on the present data. The image data module 630 may extract features from the image. The features may include shapes, patterns, and/or other data, such as time stamp, location, etc. The image data module 630 may also classify and label elements in an image. In one configuration, the data analysis module 604 includes all of the aforementioned modules or any combination thereof. Additionally, in another configuration, the user may configure the algorithm modules 606-612 that are used by the data analysis module 604.

[0083] After the data is analyzed, the data is transmitted to a pattern detecting module 614 to detect patterns in the data. In one configuration, the pattern detecting module 614 detects a spike in specific words, phrases, and/or image elements. For example, the pattern detecting module 614 may detect a spike in the phrase "I love my iPhone 5." As another example, the pattern detecting module 614 may detect a spike in a number of images with red cars. As yet another example, the pattern detecting module 614 may detect a spike in a number of images at a specific location (e.g., Las Vegas) or a type of location (e.g., beach).

[0084] The pattern detecting module 614 may also determine any causality for the spike. That is, the pattern detecting module 614 may determine what caused the spike to occur. For example, the pattern detecting module 614 may determine that the spike for the phrase “I love my iPhone 5” is based on a recent software update to the iPhone. As another example, an increase in the number of images at a location, such as Las Vegas, may be due to a recent event, such as a concert or sports event. The pattern detecting module 614 transmits the analyzed data and/or the detected patterns to the post-processing module 616. The post-processing module 616 may process the data to a format that is desired for an external system.

[0085] The data and/or detected patterns may be transmitted to a quality control module 618. In one configuration, the data may be transmitted directly from the data analysis module 604 to the quality control module 618. Likewise, the analyzed data from the data analysis module 604 may bypass either the pattern detecting module 614 or the post-processing module 616. The quality control module 618 may include a scoring module 620 for assessing the accuracy of the results over time and as compared to a human analyst. Additionally, the quality control module 618 may include a logging module 622 for logging changes to the analysis of the data over time and/or per iteration. The logging may be similar to a software version control function. Furthermore, the quality control module 618 may include a labeling module 624 for labeling the data and the datasets for later reference. The labeling may include time stamping, pattern stamping, topic labeling, or any other desired type of label (e.g., identification).

[0086] The results from the quality control are transmitted to the user profile and used for future analysis by the data analysis module 604. The results of the quality control and/or the analyzed data may be stored in a storage module 626. The storage module may also store the patterns detected via the pattern detecting module 614. The results of the quality control and/or the analyzed data may also be displayed via a display module 628. The display module 628 may also display the patterns detected via the pattern detecting module 614. Furthermore, the display module may display a notification when the quality is below a quality threshold and/or when specific analyzed data is detected. Additionally, the analyzed data from the data analysis module 604 may be used to generate notifications and/or open communication channels with users based on various criteria.

[0087] FIGURE 7 is a conceptual data flow diagram illustrating the data flow between different modules/means/components in an exemplary customer communication module 700.

The customer communication module may include modules to both communicate with a customer and receive feedback from a customer. In one configuration, the communication module may be separate from the feedback module.

[0088] As shown in FIGURE 7, the customer communication module 700 may include a communication generation module 702. The communication generation module 702 may receive data from the analyzed results. Furthermore, the communication generation module 702 may receive information regarding a specific user from a user profile module 704. The user information may include information such as the user's name, address, occupation, spoken languages, physical attributes, preferred communication method, and/or any other desired details. Additionally, the communication generation module 702 may be coupled to a translating module 706 to translate the received data based on the user profile. Furthermore, the communication generation module 702 may be coupled to a natural language processor 714 to process any natural language data. That is, the natural language processor 714 may analyze the received natural language and determine semantic information from the received natural language.

[0089] Based on the data from the analyzed results, the user profile information, and the processing by the translator 706 and/or the natural language processor 714, the communication generation module 702 determines a strategy for communicating with a user. In one configuration, the strategy may be based on historical data. Historical data may include, but is not limited to, company records, sales records, and/or logged customer feedback. Once the strategy has been developed, the communication generation module 702 transmits the strategy to a communication execution module 708 for communicating with the user via one or more determined communication channels. The communication channels may include email, short message service (SMS), click-to-voice, interactive voice response (IVR), or any other desired form of communication. In one configuration, the user specifies their desired form of communication.

[0090] The customer communication module 700 may include a feedback module 710 for receiving a communication from a customer. The communication may be in response to the communication initiated via the communication execution module 708. Alternatively, the communication may be received via a portal, such as a webpage, twitter, message board, or any other communication channel. After receiving the communication from the user, the feedback module 710 transmits the data of the communication to the data analysis module 712 to analyze the data. The data is analyzed similar to the results of a query (e.g., data

analysis module 510). That is, the data analysis module 712 may be the same module as the data analysis module 510 of FIGURE 5. In another configuration, the data analysis module 712 may be a different module as the data analysis module 510 of FIGURE 5; still, both modules would have similar functionality.

[0091] In one configuration, the data analysis module 712 may analyze the data for pattern detection and/or natural language processing. The results of the analyzed data may be reported to the user of the data mining system. Furthermore, the results may be transmitted to the communication generation module 702 for further refinement of the communication generation.

[0092] FIGURE 8 is a conceptual data flow diagram illustrating the data flow between different modules/means/components in an exemplary customer communication module 800. The customer communication module 800 may include the feedback module 710 of FIGURE 7. In one configuration, the customer communication module 800 of FIGURE 8 is integrated with the customer communication module 700 of FIGURE 7.

[0093] As shown in FIGURE 8, the customer communication module 800 may include a feedback module 802 for receiving an input from a user via a communication channel. The communication channel may include, but is not limited to, SMS, email, web-based communication, or a user-defined method. The feedback module 802 receives the communication, which may be received as a string of characters, an image, or another type of data. The feedback module 802 processes the input to a desired format. The input is then transmitted to a parsing module 804 to be parsed based on lexicon sets 820, image data 822, and/or relationship maps 824 (e.g., ontology sets), to classify the topic of the input. For example, if the image is of a smiling customer, the image data 822 may be used to classify the image as a smiling customer (e.g., happy customer).

[0094] After the string is parsed to determine the topic of the input, the parsed string is transmitted to a routing module 806 to be routed based on the identified topic. That is, the routing module 806 may look up the topic in a topic index so that the proper response is determined. After determining the proper index, the routing module 806 may transmit the topic index to the response module 808. The response module 808 determines the response from responses stored in a database 810. For example, if the string includes the words “appointment” and “schedule,” the routing module 806 may determine that an index is “scheduling an appointment” and transmits the index to the response module 808. In this

example, the response module 808 may then communicate with the user to schedule an appointment.

[0095] The responses in the database 810 may be updated in real time based on a machine learning module 812. For example, an index of “scheduling an appointment” may be determined based on a string including the words “appointment” and “schedule.” Over time, the system may determine that communicating a response to schedule an appointment is not the appropriate response. That is, based on customer feedback, or other types of feedback, the system may determine that the proper response is to provide the user with the schedule of their appointments, or another type of response.

[0096] After determining the proper response, the response module 808 transmits the response to an outbound communication module 814 to communicate the response to the user via a desired form of communication, such as, but not limited to, email, SMS, or phone.

[0097] According to an aspect of the present disclosure, the data mining system may provide an ability for managers or high-level user to subdivide the analysis into discrete, secure modules. A variety of permissions can be assigned to the analysts to control both the input and processed data. FIGURE 9 illustrates a flow diagram for the levels of security.

[0098] For example, as shown in FIGURE 9, a user designated as an administrator may have access to all of the data obtained via the system. The administrator may be referred to as a level 1 user. The administrator may provide specific permissions to level 2 users, such as a first manager (manager 1) and a second manager (manager 2). The managers may have the same access as the administrator or may have less access than the administrator. Furthermore, the levels of access for each manager may be the same as or different from each other. The managers may then control the level of access by each data analyst (Analysts A-D). The levels of access for each analysis may be the same as or different from each other.

[0099] As previously discussed, extractors may be deployed on target data sources. The data extracted by the extractors may be transmitted to a cloud-based infrastructure. The cloud-based infrastructure allows for on-demand scaling of resources and deployment of multiple extractors that may be processed in parallel.

[00100] The dynamic parallel computing structure may be used to process data without impeding speed. Specifically, the extractors and data analysis modules are dynamically configurable between sequential and parallel processing to improve efficiency.

[00101] FIGURE 10A illustrates a typical sequential data extraction system. As shown in FIGURE 10A data sources (e.g., data source 1 - data source n) are sequentially analyzed. More specifically, each record (e.g., record 1 - record n) of the data source is extracted one record at a time. The speed of the extraction is limited by the speed of the processor(s). After extracting the record from a data source, the record is written to a data base.

[00102] Furthermore, as shown in FIGURE 10B, a sentiment analysis module may also be specified to process each extracted page. The sentiment analysis module may also be a data analysis module. As shown in FIGURE 10B, each extracted data source (e.g., data source 1 - data source n) is sequentially analyzed by the sentiment analysis module. The sentiment analysis module may receive an input from the lexicon module. The records processed by the sentiment analysis module may be output from each sentiment analysis module for further processing.

[00103] Although sequential processing is a very straightforward approach to data-mining and analysis, it is limited by processing speed. For example, various sub-processes may be slower than others, leading to bottlenecks in the system. Moreover, page extraction speed (X) may be faster than the sentiment analysis processing speed (Y), thus leading to bottlenecks.

[00104] In one configuration, as shown in FIGURE 10C, scalable processing capabilities are specified by deploying multiple instances/sub-sentries to perform sentiment analysis processing in parallel. As shown in FIGURE 10C, multiple sentiment analysis modules may be deployed to analyze the records of the extracted data in parallel. In FIGURE 10C, the sentiment analysis module may receive an input from the lexicon module. The records processed by the sentiment analysis module may be output from each sentiment analysis module for further processing.

[00105] In one example, based on the present configuration, if the extraction speed is four times the sentiment analysis processing speed, 4 sub-sentries may be deployed to perform the sentiment analysis in parallel. Additional sub-sentries may be deployed for buffering needs. In another configuration, if the sentiment analysis processing speed is limited by a large lexicon, sub-sentries may be deployed to process a portion of the lexicon, in parallel. The data mining system of the aspects of the present disclosure monitors the speed of each sub-process, which is input into a controller that dynamically allocates parallel processing instances on-demand.

[00106] The data mining system described in the aspects of the present disclosure may obtain large amounts of data with varying levels of sensitivity. That is, some information may include customer sensitive data or data that should only be viewed by individuals who have varying degrees of clearance. Thus, it may be desirable to provide a data security system that may be modified based on the procedures of a client of the data mining system.

[00107] As previously discussed, the data mining system described in the various aspects of the present disclosure may be used to mine and analyze various forms of data. Provided below are various examples of how the data mining system may be used by governments, individuals, corporations, and/or any desired user. Of course, the use of the data mining system of the present application is not limited to the discussed examples.

[00108] In one configuration, the data mining system may be used by a government and/or intelligence agency to monitor global hot spots. For example, governments and/or intelligence agencies may move through vast amounts and types of data, and in multiple languages to find patterns indicating the likelihood of domestic unrest, or the next terrorist attack. However, integrating and manually analyzing multiple data sources in real time is technically challenging, time intensive, and marred by human bias, oversight, and even fraud.

[00109] The data mining system described in aspects of the present disclosure finds, monitors, and summarizes the information needed to make the most informed decision in real time. Rather than relying on the manual sifting and analysis of intelligence, data mining system of the present application may use a combination of rules engines and artificial intelligence schemes to detect threat patterns within large datasets before problems reach a tipping point. Through iterations of searches and search results, the data mining system learns to filter data noise and refine queries to prioritize the most relevant results.

[00110] The data mining system described in aspects of the present disclosure may determine political sentiment by sampling mass media conversations in any language. Social media outlets, such as Twitter, may be monitored via the data extractors to identify user-defined events, shifts in traffic volume, and/or sentiment. The data mining system may report frequencies on topics, entities, and persons of interest, which may signal the development of a physical event posing a risk to public security.

[00111] After identifying a user-defined event, the data mining system notifies the appropriate personnel in real time, communicating the event type, location, and optimal response strategy via a communication channel, such as email or SMS.

[00112] In addition to monitoring mass online conversations and their physical impact, in one configuration, the data mining system may also monitor a specific individual. That is, the data mining system may analyze, verify, and cross check a person of interest's information, such as travel, financial, vital, and law enforcement records to identify patterns indicative of fraud, criminal activity, or other threatening behavior. The data mining system may then build a person of interest profile based on verifiable intelligence determined from all available institutional and open-source data feeds, including social media.

[00113] As an example, an intelligence agency may monitor sentiment of specific topics and/or groups during. In this example, the intelligence agency would have developed a query for monitoring sentiment of a topic/group. For example, the query may be "show me people upset with the government." In some cases, the query may be further refined to a specific group and/or a specific location.

[00114] After the query has been selected, the query may be expanded based on lexical and rule-set based techniques to search structured and unstructured datasets for the keywords of the query. Specifically, the expanded query may generate a topic of interest in addition to sub-topics. The expanded query may then be run on open-source data and closed-source data. After the first pass of the search, the user may expand the topic of interest based on unintended search results.

[00115] That is, after the first pass of the search, the user may add additional topics and/or sub-topics in addition to narrowing the search to specific sources. After the search has been narrowed to a desired results threshold, the data extractors are deployed to the selected data sources for monitoring of the data sources.

[00116] As an example, the user may have searched for "Arab Spring" as a topic of interest with "unrest" as sub-topics. In this example, a search for the topic of interest and other sub-topics may have generated unintended search results such as results related to social revolutions. Therefore, the user may determine to add "revolution" as sub-topics to a search. Additionally, other false positives may include topics that are not related to the topic of interest. For example, a search for a search of "Arab spring" and other sub-topics may have generated unintended search results such as "Arab spring water" or sources related to the spring season in the Middle East. Accordingly, sources related to these false positives may be excluded from further iterations of the search.

[00117] FIGURE 11 illustrates an example of data from a data source that is identified by a sentry. The sentry may identify a phrase from a message and/or image posted on a data source, such as a message board and/or a social media site. Specifically, as shown in FIGURE 11, the sentry may detect a post 1102 in the data source, such as a message board. The post may include an image 1104 and text 1106. In the example data of FIGURE 11, the image 1104 is an image of protestors with a sign 1110. In this example, the query may include a text query for “protest” and/or a non-text query, such as an image of a protestor. The query may be expanded to include images of various types of protestors.

[00118] In one configuration, an artificial neural network (ANN), such as a convolutional neural network may be trained to identify images related to a query. For example, the ANN may be trained to identify images of protestors. In this configuration, images extracted from a source are processed by the ANN to determine the content of each image. That is, the ANN extracts features from the images to classify each image. The classified images are then processed to determine if the classification matches the query.

[00119] Additionally, or alternatively, the data mining system may use the ANN to find images that match a specific element in an image. That is, rather than identifying images that relate to a specific topic, the ANN may identify images that are substantially similar to the query image and/or the expanded query images. For example, if the query image is the Statue of David, the ANN may only identify images of the Statue of David, rather than all images of statues.

[00120] Once the post 1102 has been identified, the image 1104 may be analyzed by a data analysis module or a sentiment module. In one configuration, the sentiment is analyzed by the data analysis module 208 and/or a sentiment weight module 1108. The sentiment may be determined based on a classification of one or more elements (e.g., objects) in the image. For example, if the image includes smiling people, the sentiment analysis assigns a positive sentiment. As another example, images of frowning or crying people may indicate a negative sentiment. The sentiment is not limited to the sentiment of an individual. Other factors, such as location and/or surrounding objects may be used to determine sentiment. For example, a cemetery may indicate an “unhappy” or “sad” sentiment. As another example, an amusement park may indicate a “fun” or “happy” sentiment.

[00121] In one configuration, the sentiment analysis assigns weights (e.g., scores) to specific features that are extracted from a data source. For example, positives features are assigned a

value from 1 to X and negative words are assigned a value from -1 to -Y. Positive features refer to features that indicate a positive sentiment, such as “good,” “happy,” etc. Negative features refer to features that indicate a negative sentiment, such as “hate,” “angry,” etc. The more positive or negative the word, the higher the value. For example, the positive features “good” may be assigned a value of 1 while the positive features “fantastic” may be assigned a value of 3. The value assignment may be set by the user or pre-defined based on a specific vernacular.

[00122] In one configuration, in addition to, or alternate from, determining the sentiment of an image, the keywords in the text 1106 may be analyzed by the sentiment weight module 1108. The sentiment weight module 1108 may assign a sentiment weight to the words and/or phrases extracted from the text 1106. In this example, the words “opposition” and “strength” are both given a weight of -1. Thus, based on the analysis of the sentiment weight module 1108 a user and/or the data mining system may determine that the detected post 1102 carries a negative sentiment. The total sentiment weight for the extracted data may be the sum of all sentiment weight. In this example, the total sentiment weight is -2 (e.g., sum of “opposition” sentiment weight (-1) and “strength” sentiment weight (-1)).

[00123] In one configuration, after determining a total sentiment weight for extracted data, the data analysis module, user, and/or data mining system may determine whether to proceed with a second pass for sentiment analysis. Specifically, in one configuration, for the second pass, the data analysis module performs a more formal computational linguistic analysis to dive deeper into the textual opinions. Additionally, or alternatively, the second pass may determine more specific details of an image, such as a person’s facial expression. That is, the first pass may determine general sentiment based on a location and/or surrounding objects, while the second pass may analyze a person’s sentiment. Still, the first pass may also determine a person’s sentiment.

[00124] When analyzing text, the second pass may use a natural language processing toolset on the native script to process and determine sentiment including lemmatization (root-finding), semantic feature analysis, statistical processing to discover patterns, etc. In one aspect of the disclosure, linguistic patterns are specified to populate the topic and modifier tables and create custom lexicons. After the first pass, the system can then reprocess the opinionated text string (OTS) with the improved tables and increase accuracy. The opinionated text string refers to the set of words where the author holds the opinion.

[00125] In the exemplary data shown in FIGURE 11, during the second pass, the sign 1110 in the image 1104 may be analyzed to determine the sentiment of the text in the sign 1110. In this example, the keywords of the sign, such as, “change,” “constitutions,” and “tyrants,” may be given sentiment weights. In one configuration, after determining the total sentiment weight from the second pass, the data analysis module determines to extract the user info for the post for further analysis. In this configuration, the data analysis module determines that the user information should be extracted when the total sentiment weight is above a threshold. The thresholds may be set for positive and/or negative sentiment weights.

[00126] The user information may be extracted via an information extraction module 1112. The information extraction module 1112 may be part of the data analysis module, sentiment weight module 1108, and/or a distinct module. The information that is extracted may include the username, actual name, age, location, and/or any other information related to the user that posted the data. In one configuration the extracted information may be used for a new query to follow the user that posted the data.

[00127] It should be noted that although FIGURE 11 shows the data in English, the aspects of the present disclosure may be applied to data of any language.

[00128] In one configuration, after the sentiment of the data is analyzed, quality control is specified for the results of the sentiment. That is, the data and the sentiment weights may be transmitted to a quality control module. A user may review the data transmitted to the quality control module to determine whether the proper sentiment weights were specified for the extracted data. Specifically, the user may determine whether the sentiment analysis missed specific words, gave weights to false positives, and/or applied the wrong weights to specific words. Based on the user analysis, the sentiment analysis may be provided with a quality control value, such as a percentage.

[00129] Furthermore, based on the on the user analysis, the lexicon modules and/or sentiment analysis modules may be updated to correct missed words, false positives, incorrect analysis, and/or any other detected errors. After updating the lexicon modules and/or sentiment analysis modules, the sentiment analysis may be subsequently performed. The results of the subsequent sentiment analysis may be further analyzed by a user. The iterations of the sentiment analysis may be performed until the quality control value is equal to or greater than a threshold.

[00130] As shown in FIGURE 11, in one configuration, the data mining system may be specified to determine political sentiment. Still, in another configuration, the data mining system of the present application may be used for customer service purposes and/or revenue enhancement services. In one configuration, a revenue enhancement service (RES) platform is an end-to-end big solution that generates actionable intelligence and executes individually targeted outreach strategies. The RES platform may use predictive analytics, natural language processing, image processing, audio processing, and/or automated engagement capabilities, to increase revenue by improving sales, identifying emerging trends, and or streamlining customer interaction.

[00131] Consumers may generate large amounts of data that indicate how they spend, what they desire, and where and how they engage. In one configuration, the data mining system may continuously monitor the customer information from data sources, such as social media, web feeds, customer feedback, internal company databases, and proprietary data silos. In this configuration, the data mining system extracts attributes for each customer, such as financial profiles and retail history, to social influences and expressed interests. The RES continues to monitor and analyze the data for product sentiment, consumer patterns, and purchasing behaviors to build customer profiles and generate market intelligence in real-time. Using this intelligence, the customer of the data mining system may determine what the most likely products and services that each customer is looking for, as well as ways to engage with that particular customer.

[00132] In one configuration, based on the data retrieved via the data mining system, a company may improve product placement or determine design trends. Moreover, the customer may communicate with the company through their choice of interaction medium (e.g., SMS, email, voice, avatar chat, or a combination thereof) so that the customer may ask questions, resolve issues, and express satisfaction/dissatisfaction. Furthermore, the RES platform may determine customer profiles as well as customer sentiment so customer communications may be accurately routed for the appropriate response. That is, companies may improve outreach to engage with customers knowing who they are, how they feel and what they need.

[00133] FIGURE 12 illustrates an exemplary flow chart 1200 for determining user sentiment based on an aspect of the present disclosure. As shown in FIGURE 12, at block 1202 an individual may post data on a data source, such as a public forum or social media. In this example, the data is an indication of a phone user's sentiment for their phone service,

specifically, “my phone service is terrible.” At block 1204 an extractor that is monitoring the data source determines that the data post of block 1202 matches the query, therefore, the data extractor extracts the data and transmits the data to the data analysis module. At block 1206 a data analysis module analyzes the data to determine the sentiment of the post. At block 1208 the data analysis module outputs the sentiment word, such as “terrible,” and the sentiment weight, such as “-1”. Based on the analysis of the data analysis module, a customer communication module may determine an appropriate response. The response may be determined based on the determined sentiment.

[00134] In yet another configuration, the data mining system may be used to determine fraud, waste, and/or abuse of a system. In one configuration, the data mining system uses pattern detection based on historical data and correlating factors in datasets to determine potential fraud, waste, and/or abuse of a system. For example, the data mining system may be used in a health care or insurance system to analyze for fraud and/or abuse.

[00135] In one configuration, the data mining system is specified to analyze reported claims. The contents of the claim, such as user information, claim type, injury type, etc. are queried at data sources. The data sources may include a health provider database, subscriber database, and/or affiliate database. The query is specified to determine whether the submitted claim has specific fraud characteristics. If it is determined that a claim has fraud characteristics, the data mining system may take appropriate actions, such as notifying an investigation, denying the claim, and/or flagging the claim for further monitoring. In one configuration, when a claim does not have fraud characteristics, the claim may still be flagged so that the individual that made the claim is monitored for future activity.

[00136] In one configuration, the data mining system is specified to query one or more data sources for various types of data, such as financial data, operational data, and/or human resources data. For example, one of the data sources may be an operations center. The query may be specified to extract data for further analysis. Thus, the query may be specified for updates and/or additions to all data in a data source or specific data in the data source. In one configuration, the data that matches the query is extracted and aggregated to a pre-defined format. That is, the data in the data source(s) may be in various proprietary formats. Therefore, it is desirable to aggregate the extracted data to a pre-defined format. Furthermore, after aggregating the extracted data, the data may be analyzed. The analysis may be performed via a data analysis module, such the data analysis module 604.

[00137] The analysis may use machine learning, a user-generated system, lexicon based matching, natural language processing, and/or predictive processing to analyze the data. The analysis may detect patterns, find key words and/or indexes, determine a probability for an occurrence of an event, and/or perform other types of analysis. In one configuration, the analyzed data may be visualized. The visualization may be a sentiment heat map 308, bar graph 302, the pie chart 304, plot graph 306, and/or any other type of visualization.

[00138] Finally, in one configuration, based on the analyzed data, the data mining system may take appropriate actions, such as generating an actionable alert. As an, an actionable alert may be generated when a maximum allowed expense for a cost center exceeds a threshold. For example, a threshold of a maximum expense of \$1 million dollars per month is set, and the actual expense data is \$1.2 million dollars. In this example, the cost center Manager will be notified that the threshold has been passed. The Manager may then take appropriate actions based on the alert.

[00139] According to an aspect of the present disclosure, the data mining system is specified to improve a customer's travel experience. For example, a query may be generated to query one or more data sources for information related to traveling. The information may be travel information prior to traveling, during traveling, and/or after traveling. In one configuration, the query is related to itinerary changes, local deals, expenses accrued in relation to traveling, corporate travel policy, and/or other travel related information. The corporate travel policy may be information for budget caps, preferred hotels, preferred airlines, and/or other information related to corporate travel.

[00140] The data source(s) may include a traveler's calendar, a database of deals, a traveler's rewards account, enterprise data, credit card information, the traveler's location, and/or any other data source that includes travel information. The rewards account may be an account such as a frequent flyer account. In this configuration, the data mining system generates an actionable alert when new data and/or a change in data match the query.

[00141] As an example, once a traveler has booked a trip (e.g., hotel and/or flight) to a destination, a query is generated to monitor the one or more data sources. In this example, if there is a change to an itinerary, an actionable alert may be generated for the traveler. The change in itinerary may be detected based on a change to the traveler's calendar, a change in a rewards account, a change in a credit card transaction, and/or a change any other data source that includes travel information.

[00142] As another example, prior to embarking on the planned travel, the query may determine local deals based on the traveler's destination. The local deals may be determined from one or more data sources that include local deals. Furthermore, an actionable alert may be generated for the traveler if a local deal is found. As another example, the local deals may be determined while the traveler is at a specific destination. In this example, the local deals may be determined using a data source that includes the traveler's location as well as a data source that includes local deals.

[00143] In yet another example, after travel has been booked, a traveler may be notified that their booked hotel, airline, rental car, and/or other travel related item is no longer qualified by a corporate travel policy. The notification may also indicate that travel expenses accrued prior and/or during travel have exceeded the corporate travel limit. Furthermore, in one example, the query may search expenses from a credit card data source and/or other financial data source to determine travel related expenses. The data mining system may then generate and submit an expense report based on the matched query.

[00144] In one configuration, the data mining system is configured to query one or more data sources for information regarding bullying. For example, the query may search for specific words, phrases, images, and/or videos related to bullying in a bullying report database and/or social media. The bullying reports may be submitted by victims and/or witnesses. The reports may include a description, audio, and/or video of an incident.

[00145] In this configuration, an actionable alert is generated when a query identifies a new and/or updated bullying incident. The actionable alert may be transmitted to authorities, such as school officials, parents, and/or police.

[00146] In one configuration, the data mining system is configured to query one or more data sources for a user-defined topic of interest. The data source(s) may include surveys, feedback forms, user comments, and/or any type of data. For example, the data source may be a survey data source and/or social media. The query may be specified to search for updates and/or additions to all data in a data source or specific data in the data source. After extracting the data, the data may be analyzed. The analysis may be performed via a data analysis module, such the data analysis module 604.

[00147] In one configuration, the analysis is specified to determine public sentiment. Of course, aspects of the present disclosure are not limited to determining public sentiment and the analysis may be performed to determine any metric. The analysis may use machine

learning, a user-generated system, lexicon based matching, natural language processing, and/or predictive processing to analyze the data. The analysis may detect patterns, find key works and/or indexes, determine a probability for an occurrence of an event, and/or perform other types of analysis. The results of the analysis may be communicated to a user for further processing.

[00148] In one configuration, the data mining system is configured to query one or more data sources for financial transactions. The data source(s) may include a bank account and/or a credit card account. The query may be specified to identify updates and/or additions to the financial information. The financial information may be in different formats. For example, one format may be transactional data, such as a posted transaction. Another format may be non-transactional data or user-provided data, such as an image of a receipt or check. A match to the query may result in an actionable alert to a customer. Additionally, a match to the query may result in an expense report being generated for the financial transaction.

[00149] As an example, the user may set a query to determine when financial transactions at a coffee shop exceed a pre-defined budget. The query may then monitor one or more of the user's financial data sources. When a transaction at a coffee shop is posted, the query receives a match and increments a variable with the amount of transaction. Accordingly, if the variable is greater than the pre-defined budget, an alert may be sent to the user.

[00150] As an example, the user may set a query to determine when a new image is added to a financial data source. The query may then monitor one or more of the user's financial data sources for a new image. When an image, such as an image of a check or an image of a receipt is posted, the query receives a match. In this example, data from the image is extracted and the amount may be incremented to a ledger and/or an expense report may be generated based on the extracted information.

[00151] In one configuration, the data mining system is configured to monitor one or more data sources for a user's financial transactions. Spending patterns may be determined from the financial transactions via a data analysis module, such the data analysis module 604. Additionally, the data mining system is configured to monitor one or more data sources for deals, such as coupons, deals, rewards, and/or other incentives for existing and/or potential customers.

[00152] In one example, the data mining system may determine a deal based on an identified spending pattern. For example, based on a query for spending patterns, the data mining

system identifies that a user has increased spending at a specific coffee merchant. Based on the identified coffee spending pattern, the data mining system may query the deal data source(s) to identify deals related to the coffee spending pattern. The query may identify existing deals and/or the query may continuously monitor the data source to determine when a deal is identified. Furthermore, once a deal is identified, an actionable alert may be generated for the user.

[00153] In another example, the query may identify a new deal from a merchant. Furthermore, after determining the new deal, the query may then monitor the spending patterns of users to identify potential targets for the deal. Once a target (e.g., user) for the deal is identified, an actionable alert may be generated for the user.

[00154] In yet another example, the query may identify a user's spending patterns. Furthermore, based on the spending patterns, a user may earn points to be used for deals, trips, and/or merchandise. The points and/or spending patterns may be updated when new financial transactions are identified by the query.

[00155] In one configuration, the data mining system is configured to query one or more data sources for user information as well as other financial information. The financial information may include public information and/or user received information, such as mortgage rates, interest rates, housing prices, location data, a user's financial data (e.g., credit score, account balances, income, etc.). The user's financial data may be information received via application forms, such as a loan or credit application, and/or tax forms. The user information may also include the user's location (e.g., current location, business location, and/or residence). In response to identifying data via the query, an actionable alert may be generated to a user. The alert may suggest a vendor/service and/or a path to a goal. Vendors/services may include loan vendors, credit vendors, and/or other vendors of financial related services.

[00156] For example, the alert may suggest a low-interest credit card based on the user's credit score and account balances. As another example, the alert may suggest a service to repair a credit score based on the user's credit score. In yet another example, a path to a goal may include suggestions for how to save money in view of current spending patterns to reach a user-defined goal or a system suggested goal.

[00157] In one configuration, the data mining system is configured to query one or more data sources for user information as well as other health-related information. The health-

related information may include locations for health care providers, a user's insurance information, and/or a user's health records. The user information may include the user's location (e.g., current location, business location, and/or residence). In response to identifying data via the query, an actionable alert may be generated to a user.

[00158] The alert may suggest a nearby health care provider that is approved by insurance. The alert may also suggest updated insurance information. Furthermore, the alert may include an application for enrollment in health plans. In one configuration, the information in the application is pre-populated with user information obtained from one or more of the data sources.

[00159] In one configuration, the data mining system is configured to query one or more data sources for customer service issues and/or a user-defined topic of interest. The data source may be one or more data sources that include knowledge centers, FAQs, user comments, or any type of data. The query may be specified to search for updates and/or additions to all data in a data source or specific data in the data source. After extracting the data, the data may be analyzed for sentiment, trends, or other analysis. The analysis may be performed via a data analysis module, such the data analysis module 604.

[00160] In one configuration, the data mining system is configured to query one or more data sources for data that is to be processed for summarization (e.g., abstraction). For example, the data may include documents and/or images. The data may be unstructured (e.g., not in machine-readable format). In this configuration, when the data has been identified, the data is converted to a machine-readable format and summarized. For example, optical character recognition may be applied to convert the data into structured data. Furthermore, the summarized data may be available for further analysis. The summarized data may be referred to as abstracted data.

[00161] As an example, the one or more data sources may include lease information. In this example, when an update to an existing lease or a new lease is provided, the query extracts the lease and the information is converted to a machine-readable format. Furthermore, after the conversion, the lease may be summarized. Additionally, the summary may then be available for further queries or analysis.

[00162] In another example, the one or more data sources may include legal documents, such as court decisions. In this example, when a new court decision has been entered, the query extracts the court decision and the information is converted to a machine-readable

format. Furthermore, after the conversion, the court decision may be summarized. Additionally, the summary may then be available for further queries or analysis.

[00163] In one configuration, the data mining system is configured to query one or more data sources that include a user's location, device information, as well as a user's contact preferences. The information may include a user/device GPS location, wireless device information, a radio access technology (RAT) the device is connected to (e.g., connected to WiFi or LTE), a cell tower the device is connected to, a SIM card used by the device, and/or other communication related information. In this configuration, the information obtained from the data sources may be used for virtual contact card as well as contact rules based on a user's preference. That is, when an update or new information is provided for a first user's location, device information, and/or the first user's contact preferences, an alert may be generated to one or more second users. The alert may inform the second user regarding the first user's contact preferences. The alert may be transmitted to the second user's device, such that the second user is not identified that the first user's contact information has been updated. The alert may also be sent to one or more of the first user's devices to update outgoing communication rules.

[00164] In one example, a query may be generated to monitor what type of RAT a first user's device is connected to. Furthermore, a data source may receive an update indicating that the first user's device is only connected to WiFi. Based on the update, an alert is sent to one or more second users. The alert may indicate that until further notice, the first user should only be contacted via voice over IP (VoIP) or other Internet-based communications. Additionally or alternatively, in this example, when the query determines that the first user is only connected to WiFi, an alert may be generated for the first user's device so that the first user's device may only perform outgoing communications via VoIP or other Internet-based communications.

[00165] In another example, a query may be generated to monitor a user's calendar. In this example, when a new calendar entry or updated calendar entry is determined from the query, the user's contact preference may be alerted to the user or other users. For example, a first user may update their calendar to include a business meeting during a specific data. Based on the updated calendar, an alert is transmitted to one or more second users to update the first user's contact preference. For example, the first user may only desire to receive SMS messages during the meeting. Thus, if a second user attempts to contact the first user during

the scheduled meeting, the second user may only be able to contact the first user using SMS based on the updated contact preference.

[00166] In one configuration, the data mining system is configured to query data sources for health-related information, secure messaging, and/or scheduling information. For example, the information may include a physician's schedule, such that an alert is generated when a new or updated schedule is provided to the data source. As another, in a healthcare environment, the queried data queried may include contact information, health records, and/or a physician's schedule. An alert may be generated, when a new schedule or an update to a physician's schedule is received in the database. Alerts may also be generated upon the entry of a new communication in the database.

[00167] As previously discussed, according to aspects of the present disclosure the search terms of the query may be expanded. In the above-mentioned examples, the search terms may be expanded if desired. Additionally, according to aspects of the present disclosure, in some cases, one or more data sources from the multiple data sources are selected when results of the query are greater than or equal to an accuracy thresholds. In the above mentioned examples, the selection of one or more data sources based on the accuracy threshold may be performed as desired. Still, the above mentioned examples are not limited to expanding the query and/or selecting one or more data based on the accuracy threshold.

[00168] FIGURE 13 illustrates a flow diagram for a method 1300 of analyzing data according to aspects of the present disclosure. As shown in FIGURE 13, at block 1302, a data extraction system receives a query for non-textual data. The query may be generated via a first user. The non-textual data may be an image, audio, or other type of data. The non-textual data may be the entire data or an object in the data. For example, the query may be for an entire image or an object in the image.

[00169] At block 1304, the data extraction system executes the query on multiple data sources. The data sources may be public and/or private data sources. For example, one of the data sources may be a deep web data source. At block 1306, the data extraction system selects one or more data sources from the multiple data sources. The one or more data sources may be selected based on results of the query being greater than or equal to an accuracy thresholds.

[00170] At block 1306, the data extraction system monitors, based on a set schedule, the one or more data sources to extract non-textual data when an update to stored data matches the

query and/or newly added non-textual data matches the query. The monitoring may include deploying extractors to each of specific data source. The number of extractors may be dynamic. For example, the number of extractors may be based on a traffic volume of each specific data source. Finally, at block 1308 the data extraction system establishes a communication channel with a second user based at least in part on the data extracted from the at least one monitored data source.

[00171] As used herein, the term “determining” encompasses a wide variety of actions. For example, “determining” may include calculating, computing, processing, deriving, investigating, looking up (e.g., looking up in a table, a database or another data structure), ascertaining and the like. Additionally, “determining” may include receiving (e.g., receiving information), accessing (e.g., accessing data in a memory) and the like. Furthermore, “determining” may include resolving, selecting, choosing, establishing, and the like.

[00172] As used herein, a phrase referring to “at least one of” a list of items refers to any combination of those items, including single members. As an example, “at least one of: a, b, or c” is intended to cover: a, b, c, a-b, a-c, b-c, and a-b-c.

[00173] The various illustrative logical blocks, modules and circuits described in connection with the present disclosure may be implemented or performed with a processor configured to perform the functions discussed in the present disclosure. The processor may be a neural network processor, a digital signal processor (DSP), an application specific integrated circuit (ASIC), a field programmable gate array signal (FPGA) or other programmable logic device (PLD), discrete gate or transistor logic, discrete hardware components or any combination thereof designed to perform the functions described herein. The processor may be a microprocessor, controller, microcontroller, or state machine specially configured as described herein. A processor may also be implemented as a combination of computing devices, e.g., a combination of a DSP and a microprocessor, a plurality of microprocessors, one or more microprocessors in conjunction with a DSP core, or such other special configuration, as described herein.

[00174] The steps of a method or algorithm described in connection with the present disclosure may be embodied directly in hardware, in a software module executed by a processor, or in a combination of the two. A software module may reside in storage or machine-readable medium, including random access memory (RAM), read only memory (ROM), flash memory, erasable programmable read-only memory (EPROM), electrically

erasable programmable read-only memory (EEPROM), registers, a hard disk, a removable disk, a CD-ROM or other optical disk storage, magnetic disk storage or other magnetic storage devices, or any other medium that can be used to carry or store desired program code in the form of instructions or data structures and that can be accessed by a computer. A software module may comprise a single instruction, or many instructions, and may be distributed over several different code segments, among different programs, and across multiple storage media. A storage medium may be coupled to a processor such that the processor can read information from, and write information to, the storage medium. In the alternative, the storage medium may be integral to the processor.

[00175] The methods disclosed herein comprise one or more steps or actions for achieving the described method. The method steps and/or actions may be interchanged with one another without departing from the scope of the claims. In other words, unless a specific order of steps or actions is specified, the order and/or use of specific steps and/or actions may be modified without departing from the scope of the claims.

[00176] The functions described may be implemented in hardware, software, firmware, or any combination thereof. If implemented in hardware, an example hardware configuration may comprise a processing system in a device. The processing system may be implemented with a bus architecture. The bus may include any number of interconnecting buses and bridges depending on the specific application of the processing system and the overall design constraints. The bus may link together various circuits including a processor, machine-readable media, and a bus interface. The bus interface may be used to connect a network adapter, among other things, to the processing system via the bus. The network adapter may be used to implement signal processing functions. For certain aspects, a user interface (e.g., keypad, display, mouse, joystick, etc.) may also be connected to the bus. The bus may also link various other circuits such as timing sources, peripherals, voltage regulators, power management circuits, and the like, which are well known in the art, and therefore, will not be described any further.

[00177] The processor may be responsible for managing the bus and processing, including the execution of software stored on the machine-readable media. Software shall be construed to mean instructions, data, or any combination thereof, whether referred to as software, firmware, middleware, microcode, hardware description language, or otherwise.

[00178] In a hardware implementation, the machine-readable media may be part of the processing system separate from the processor. However, as those skilled in the art will readily appreciate, the machine-readable media, or any portion thereof, may be external to the processing system. By way of example, the machine-readable media may include a transmission line, a carrier wave modulated by data, and/or a computer product separate from the device, all which may be accessed by the processor through the bus interface. Alternatively, or in addition, the machine-readable media, or any portion thereof, may be integrated into the processor, such as the case may be with cache and/or specialized register files. Although the various components discussed may be described as having a specific location, such as a local component, they may also be configured in various ways, such as certain components being configured as part of a distributed computing system.

[00179] The processing system may be configured with one or more microprocessors providing the processor functionality and external memory providing at least a portion of the machine-readable media, all linked together with other supporting circuitry through an external bus architecture. Alternatively, the processing system may comprise one or more neuromorphic processors for implementing the neuron models and models of neural systems described herein. As another alternative, the processing system may be implemented with an application specific integrated circuit (ASIC) with the processor, the bus interface, the user interface, supporting circuitry, and at least a portion of the machine-readable media integrated into a single chip, or with one or more field programmable gate arrays (FPGAs), programmable logic devices (PLDs), controllers, state machines, gated logic, discrete hardware components, or any other suitable circuitry, or any combination of circuits that can perform the various functions described throughout this present disclosure. Those skilled in the art will recognize how best to implement the described functionality for the processing system depending on the particular application and the overall design constraints imposed on the overall system.

[00180] The machine-readable media may comprise a number of software modules. The software modules may include a transmission module and a receiving module. Each software module may reside in a single storage device or be distributed across multiple storage devices. By way of example, a software module may be loaded into RAM from a hard drive when a triggering event occurs. During execution of the software module, the processor may load some of the instructions into cache to increase access speed. One or more cache lines may then be loaded into a special purpose register file for execution by the processor. When

referring to the functionality of a software module below, it will be understood that such functionality is implemented by the processor when executing instructions from that software module. Furthermore, it should be appreciated that aspects of the present disclosure result in improvements to the functioning of the processor, computer, machine, or other system implementing such aspects.

[00181] If implemented in software, the functions may be stored or transmitted over as one or more instructions or code on a computer-readable medium. Computer-readable media include both computer storage media and communication media including any storage medium that facilitates transfer of a computer program from one place to another.

Additionally, any connection is properly termed a computer-readable medium. For example, if the software is transmitted from a website, server, or other remote source using a coaxial cable, fiber optic cable, twisted pair, digital subscriber line (DSL), or wireless technologies such as infrared (IR), radio, and microwave, then the coaxial cable, fiber optic cable, twisted pair, DSL, or wireless technologies such as infrared, radio, and microwave are included in the definition of medium. Disk and disc, as used herein, include compact disc (CD), laser disc, optical disc, digital versatile disc (DVD), floppy disk, and Blu-ray® disc where disks usually reproduce data magnetically, while discs reproduce data optically with lasers. Thus, in some aspects computer-readable media may comprise non-transitory computer-readable media (e.g., tangible media). In addition, for other aspects computer-readable media may comprise transitory computer-readable media (e.g., a signal). Combinations of the above should also be included within the scope of computer-readable media.

[00182] Thus, certain aspects may comprise a computer program product for performing the operations presented herein. For example, such a computer program product may comprise a computer-readable medium having instructions stored (and/or encoded) thereon, the instructions being executable by one or more processors to perform the operations described herein. For certain aspects, the computer program product may include packaging material.

[00183] Further, it should be appreciated that modules and/or other appropriate means for performing the methods and techniques described herein can be downloaded and/or otherwise obtained by a user terminal and/or base station as applicable. For example, such a device can be coupled to a server to facilitate the transfer of means for performing the methods described herein. Alternatively, various methods described herein can be provided via storage means, such that a user terminal and/or base station can obtain the various methods upon coupling or

providing the storage means to the device. Moreover, any other suitable technique for providing the methods and techniques described herein to a device can be utilized.

[00184] It is to be understood that the claims are not limited to the precise configuration and components illustrated above. Various modifications, changes, and variations may be made in the arrangement, operation, and details of the methods and apparatus described above without departing from the scope of the claims.

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	79531-000049
		Application Number	
Title of Invention	REAL-TIME AND ADAPTIVE DATA MINING		
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	
	Sharon	Gill	CHADHA		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	Santa Monica	State/Province	CA	Country of Residence	US
Mailing Address of Inventor:					
Address 1		3003 Pennsylvania Avenue			
Address 2					
City	Santa Monica	State/Province	CA		
Postal Code	90404	Country	US		
Inventor 2					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Xin		CHENG		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	San Diego	State/Province	CA	Country of Residence	US
Mailing Address of Inventor:					
Address 1		3003 Pennsylvania Avenue			
Address 2					
City	Santa Monica	State/Province	CA		
Postal Code	90404	Country	US		
Inventor 3					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Parvinder		CHADHA		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	79531-000049	
		Application Number		
Title of Invention	REAL-TIME AND ADAPTIVE DATA MINING			

City	Santa Monica	State/Province	CA	Country of Residence	US
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Mailing Address of Inventor:

Address 1	3003 Pennsylvania Avenue				
Address 2					
City	Santa Monica	State/Province	CA		
Postal Code	90404	Country	US		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.					

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
☐ An Address is being provided for the correspondence information of this application.			
Customer Number	98275		
Email Address	LAXIPDocket@seyfarth.com	Add Email	Remove Email

Application Information:

Title of the Invention	REAL-TIME AND ADAPTIVE DATA MINING		
Attorney Docket Number	79531-000049	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	16	Suggested Figure for Publication (if any)	13

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.

199/211

IPR2024-01306

UIPATH EXHIBIT 1006

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	79531-000049
		Application Number	
Title of Invention	REAL-TIME AND ADAPTIVE DATA MINING		

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	98275		

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 in part of	14960316	2015-04-12
Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
14960316	Continuation in part of	13928313	2013-06-26
Prior Application Status	Expired	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
13928313	Claims benefit of provisional	61679024	2012-08-02
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			

Foreign Priority Information:

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	79531-000049
		Application Number	
Title of Invention	REAL-TIME AND ADAPTIVE DATA MINING		

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)ⁱ 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).

Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	 Access Code ^j (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

☐ 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.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	79531-000049
	Application Number	
Title of Invention	REAL-TIME AND ADAPTIVE DATA MINING	

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	79531-000049
		Application Number	
Title of Invention	REAL-TIME AND ADAPTIVE DATA MINING		

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	Rule 14							
Mailing Address Information For Applicant:								
Address 1	3003 Pennsylvania Avenue							
Address 2								
City	Santa Monica	State/Province	CA					
Country	US	Postal Code	90404					
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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	79531-000049
		Application Number	
Title of Invention	REAL-TIME AND ADAPTIVE DATA MINING		

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	/Puya Partow-Navid/			Date (YYYY-MM-DD)	2018-12-20
First Name	Puya	Last Name	Partow-navid	Registration Number	59,657

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

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	79531-000049
		Application Number	
Title of Invention	REAL-TIME AND ADAPTIVE DATA MINING		

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.**

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 records.
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:				
Filing Date:				
Title of Invention:		REAL-TIME AND ADAPTIVE DATA MINING		
First Named Inventor/Applicant Name:		Sharon Gill CHADHA		
Filer:		Puya Partow-Navid/Lillian Rodriguez		
Attorney Docket Number:		79531-000049		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	75	75
UTILITY SEARCH FEE	2111	1	330	330
UTILITY EXAMINATION FEE	2311	1	380	380
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				785

Electronic Acknowledgement Receipt

EFS ID:	34651508
Application Number:	16228218
International Application Number:	
Confirmation Number:	3189
Title of Invention:	REAL-TIME AND ADAPTIVE DATA MINING
First Named Inventor/Applicant Name:	Sharon Gill CHADHA
Customer Number:	98275
Filer:	Puya Partow-Navid/Lillian Rodriguez
Filer Authorized By:	Puya Partow-Navid
Attorney Docket Number:	79531-000049
Receipt Date:	20-DEC-2018
Filing Date:	
Time Stamp:	17:41:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 785
RAM confirmation Number	122118INTEFSW00006135191351
Deposit Account	191351
Authorized User	Lillian Rodriguez

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

209/211

IPR2024-01306

UIPATH EXHIBIT 1006

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	79531-000049_POA_AsFiled_20December2018.pdf	375472	no	1
			a2688022efeec4e77046c6a35fd37b130ea28cdf		
Warnings:					
Information:					
2	Oath or Declaration filed	79531-000027_Copy_Parent_DEC_14960316.pdf	177207	no	3
			67433ca5ed840fbf443e857d58218e550c3ce6a2		
Warnings:					
Information:					
3	Drawings-only black and white line drawings	79531-000049_FIGS_AsFiled_20December2018.pdf	432485	no	16
			e76d72ed1bbfe0ee29573a83419fd8ffa093e80b		
Warnings:					
Information:					
4		79531-000049_Image_Search_APP_AsFiled_20December2018.pdf	327737	yes	47
			9546ad0740b7340a3b74e44d3fb8f3ea2f3bf388		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Abstract		47	47	
	Claims		43	46	
	Specification		1	42	
Warnings:					
Information:					
5	Application Data Sheet	79531-000049_ADS_AsFiled_20December2018.pdf	110560	no	9
			e60c4c75ce68aa9190b9d72c95bc0f32a28ae3463		
			IPR2024-01306		

Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
6	Fee Worksheet (SB06)	fee-info.pdf	35168 0c37532a0f59fcbbb518f48c87abf52bd35975d4	no	2
Warnings:					
Information:					
Total Files Size (in bytes):				1458629	
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