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APPLICATION NUMBER	PATENT NUMBER	GROUP ART UNIT	FILE WRAPPER LOCATION
13/109,023	9263045	2659	9200



Correspondence Address/Fee Address Change

The following fields have been set to Customer Number 127265 on 11/18/2020

- Correspondence Address
- Maintenance Fee Address

The address of record for Customer Number 127265 is:

127265
Microsoft Technology Licensing, LLC
One Microsoft Way
Redmond, WA 98052

"FEE ADDRESS" INDICATION FORM

Address to:
Mail Stop M Correspondence
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Fax to:
571-273-6500

- OR -

INSTRUCTIONS: The issue fee must have been paid for application(s) listed on this form. In addition, only an address represented by a Customer Number can be established as the fee address for maintenance fee purposes (hereafter, fee address). A fee address should be established when correspondence related to maintenance fees should be mailed to a different address than the correspondence address for the application. **When to check the first box below:** If you have a Customer Number to represent the fee address. **When to check the second box below:** If you have no Customer Number representing the desired fee address, in which case a completed Request for Customer Number (PTO/SB/125) must be attached to this form. For more information on Customer Numbers, see the Manual of Patent Examining Procedure (MPEP) § 403.

For the following listed application(s), please recognize as the "Fee Address" under the provisions of 37 CFR 1.363 the address associated with:



Customer Number:

22971

OR



The attached Request for Customer Number (PTO/SB/125) form.

PATENT NUMBER (if known)	APPLICATION NUMBER
9,263,045	13/109,023

Completed by (check one):



Applicant/Inventor


Signature



Attorney or Agent of record 70260
(Reg. No.)

Yanek A. Kondryszyn
Typed or printed name



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

509-944-4625

Requester's telephone number



Assignee recorded at Reel _____ Frame _____

02/22/2016

Date

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



* Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.363. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 5 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 COMPLETE D FORMS TO THIS ADDRESS. SEND TO: Mail Stop M Correspondence, 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.

MS1 - 6031US

Patent Owner Ex. 2100

Page 2 of 294

CHANGE OF CORRESPONDENCE ADDRESS Patent

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

Patent Number	9,263,045
Issue Date	2/16/2016
Application Number	13/109,023
Filing Date	5/17/2011
First Named Inventor	Mohan Varthakavi
Attorney Docket Number	MS1 - 6031US

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



The address associated with Customer Number:

22971

OR



Firm or
Individual Name

Address

City

State

ZIP

Country

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Email

This form cannot be used to change the data associated with a Customer Number. To change the data associated with an existing Customer Number use "Request for Customer Number Data Change" (PTO/SB/124).

This form will not affect any "fee address" provided for the above-identified patent. To change a "fee address" use the "Fee Address Indication Form" (PTO/SB/47).

I am the:



Patentee.



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



Attorney or agent of record. Registration Number 70260

Signature

Typed or

Printed Name Yanek A. Kondryszyn

Date

02/22/2016

Telephone

509-944-4625

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

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Post Issue, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Acknowledgement Receipt

EFS ID:	25427303
Application Number:	13109023
International Application Number:	
Confirmation Number:	1603
Title of Invention:	MULTI-MODE TEXT INPUT
First Named Inventor/Applicant Name:	Mohan Varthakavi
Customer Number:	22801
Filer:	Daniel Leo Hayes/Patrick Ruhling
Filer Authorized By:	Daniel Leo Hayes
Attorney Docket Number:	MS1-6031US
Receipt Date:	07-APR-2016
Filing Date:	17-MAY-2011
Time Stamp:	14:50:28
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Change of Address	1H20440.PDF	88471 cfb185fd8eb5e8818f6685d340f681e2a4153be5	no	1

Warnings:

Information:

Patent Owner Ex. 2100

2	Change of Address	1H20480.PDF	83024	no	1
			5ddacfa5611c0454c6ce56c0fee48e4c5a9ec1ca		
Warnings:					
Information:					
Total Files Size (in bytes):				171495	
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.					



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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/109,023	02/16/2016	9263045	MS1-6031US	1603

22801 7590 01/27/2016
LEE & HAYES, PLLC
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

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 896 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):

Mohan Varthakavi, Sammamish, WA;
Jayaram Nanduri, Sammamish, WA;
Nikhil Kothari, Sammamish, WA;

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.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
13/109,023	05/17/2011	2659	1090	MS1-6031US	20	3

22801
LEE & HAYES, PLLC
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

CONFIRMATION NO. 1603
REPLACEMENT FILING RECEIPT



Date Mailed: 01/13/2016

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)

Mohan Varthakavi, Sammamish, WA;
Jayaram Nanduri, Sammamish, WA;
Nikhil Kothari, Sammamish, WA;

Applicant(s)

Mohan Varthakavi, Sammamish, WA;
Jayaram Nanduri, Sammamish, WA;
Nikhil Kothari, Sammamish, WA;

Assignment For Published Patent Application

Microsoft Technology Licensing, LLC, Redmond, WA

Power of Attorney: The patent practitioners associated with Customer Number 22801

Domestic Applications for which benefit is claimed - None.

A proper domestic benefit claim must be provided in an Application Data Sheet in order to constitute a claim for domestic benefit. See 37 CFR 1.76 and 1.78.

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: No

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

If Required, Foreign Filing License Granted: 05/26/2011

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/109,023**

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No
Title

MULTI-MODE TEXT INPUT

Preliminary Class

704

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

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

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

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United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/109,023	05/17/2011	Mohan Varthakavi	MS1-6031US

CONFIRMATION NO. 1603

POA ACCEPTANCE LETTER



22801
LEE & HAYES, PLLC
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

Date Mailed: 01/11/2016

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/04/2016.

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

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

/bcrittenden/



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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/109,023	05/17/2011	Mohan Varthakavi	MS1-6031US

69316
MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052

CONFIRMATION NO. 1603
POWER OF ATTORNEY NOTICE



Date Mailed: 01/11/2016

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/04/2016.

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

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

/bcrittenden/

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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.

Customer Number 22801
 Lee & Hayes PLLC
 601 W Riverside Ave Suite 1400
 Spokane, WA 99201

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

N/A filed via EFS-Web (Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/109,023	5/17/2011	Mohan Varthakavi	MS1 - 6031US	1603

TITLE OF INVENTION: Multi-Mode Text Input

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	960	0		960	1/5/2016

EXAMINER	ART UNIT	CLASS-SUBCLASS
Fariba Sirjani	2659	

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Steven J. Spellman

2 Danielle Johnston-Holmes

3 Micky Minhas

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

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

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Microsoft Technology Licensing, LLC

Redmond

WA

US

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☒ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

☐ A check is enclosed.

☒ Payment by credit card. Form PTO-2038 is attached. Fees Paid Via EFS-Web

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 12-0769 (enclose an extra copy of this form).

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

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ /Leonard J. Hope/

Date _____ January 4, 2016

Typed or printed name _____ Leonard J. Hope

Registration No. _____ 44774

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Electronic Patent Application Fee Transmittal				
Application Number:		13109023		
Filing Date:		17-May-2011		
Title of Invention:		MULTI-MODE TEXT INPUT		
First Named Inventor/Applicant Name:		Mohan Varthakavi		
Filer:		Leonard J. Hope/Janis Abbott		
Attorney Docket Number:		MS1-6031US		
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl Issue Fee	1501	1	960	960

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				960

Electronic Acknowledgement Receipt

EFS ID:	24511234
Application Number:	13109023
International Application Number:	
Confirmation Number:	1603
Title of Invention:	MULTI-MODE TEXT INPUT
First Named Inventor/Applicant Name:	Mohan Varthakavi
Customer Number:	22801
Filer:	Leonard J. Hope/Janis Abbott
Filer Authorized By:	Leonard J. Hope
Attorney Docket Number:	MS1-6031US
Receipt Date:	04-JAN-2016
Filing Date:	17-MAY-2011
Time Stamp:	12:15:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$960
RAM confirmation Number	8298
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Patent Owner Ex. 2100

Page 16 of 294

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)	1G16421.PDF	60121	no	1
			81c8c27d151846697ed512d2a021ed97654feb2b		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30284	no	2
			caa15ed9e3269b94c12366a19b7df9e227dd3ec7		
Warnings:					
Information:					
Total Files Size (in bytes):			90405		
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.					

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TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B or equivalent) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5. If the Power of Attorney by Applicant form is not accompanied by this transmittal form or an equivalent, the Power of Attorney will not be recognized in the application.

Application Number	13/109,023
Filing Date	5/17/2011
First Named Inventor	Mohan Varthakavi
Title	Multi-mode Text Input
Art Unit	2659
Examiner Name	Fariba Sirjani
Attorney Docket Number	MS1 - 6031US

SIGNATURE of Applicant or Patent Practitioner

Signature	/Leonard J. Hope/	Date	1/04/2016
Name	Leonard J. Hope	Telephone	404-736-1926
Registration Number	44774		

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



*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

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:

22801

OR



I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) 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 patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:



The address associated with the above-mentioned Customer Number

OR



The address associated with Customer Number:

OR

Firm or
Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Microsoft Technology Licensing, LLC



Inventor or Joint Inventor (title not required below)



Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)



Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)



Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

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

Benjamin G. Orndorff

Title

Secretary, Microsoft Technology Licensing, LLC

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.



Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Patent Owner Ex. 2100

Page 19 of 294

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.

STATEMENT UNDER 37 CFR 3.73(c)Applicant/Patent Owner: Microsoft Technology Licensing, LLCApplication No./Patent No.: 13/109,023Filed/Issue Date: 5/17/2011Titled: Multi-mode Text InputMicrosoft Technology Licensing, LLC, a corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

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

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

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

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: Mohan et al. To: Microsoft CorporationThe document was recorded in the United States Patent and Trademark Office at
Reel 026288, Frame 0195, or for which a copy thereof is attached.2. From: Microsoft Corporation To: Microsoft Technology Licensing, LLCThe document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Patent Owner Ex. 2100

Page 20 of 294

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
 Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
 Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
 Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
 Reel _____, Frame _____, or for which a copy thereof is attached.

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

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

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

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

/Leonard J. Hope/

 Signature

1/04/2016

 Date

Leonard J. Hope

 Printed or Typed Name

44774

 Title or Registration Number

404-736-1910

[Page 2 of 2]

Electronic Acknowledgement Receipt

EFS ID:	24518213
Application Number:	13109023
International Application Number:	
Confirmation Number:	1603
Title of Invention:	MULTI-MODE TEXT INPUT
First Named Inventor/Applicant Name:	Mohan Varthakavi
Customer Number:	22801
Filer:	Leonard J. Hope/Janis Abbott
Filer Authorized By:	Leonard J. Hope
Attorney Docket Number:	MS1-6031US
Receipt Date:	04-JAN-2016
Filing Date:	17-MAY-2011
Time Stamp:	16:42:50
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	Application Data Sheet	1CA3216.PDF	244386 4225e8846e7d5799eaf9b085c56b5e84eac ace10	no	5

Warnings:

Information:

Patent Owner Ex. 2100

This is not an USPTO supplied ADS fillable form					
2	Power of Attorney	1G19367.PDF	369989 15249d7fcb21a420fd58631d58640c69cc89ee2b	no	2
Warnings:					
Information:					
3	Assignee showing of ownership per 37 CFR 3.73	1G19373-.pdf	66276 27790078209af0a2ba8e324b72deadeac490851d	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			680651		
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.					

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.

Supplemental		Attorney Docket Number	331991.01 <u>MST-603105</u>
Application Data Sheet 37 CFR 1.76		Application Number	<u>13/109,023</u>
Title of Invention	MULTI-MODE TEXT INPUT		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Applicant Information:

Applicant 1				
Applicant Authority		☒ Inventor		☐ Legal Representative under 35 U.S.C. 117
		☐ Party of Interest under 35 U.S.C. 118		
Prefix	Given Name	Middle Name	Family Name	Suffix
	Mohan		Varthakavi	
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service				
City	Sammamish	State/Province	WA	Country of Residence US
Citizenship under 37 CFR 1.41(b)		US		
Mailing Address of Applicant:				
Address 1	c/o Microsoft Corporation			
Address 2	One Microsoft Way			
City	Redmond	State/Province	WA	
Postal Code	98052	Country	US	
Applicant 2				
Applicant Authority		☒ Inventor		☐ Legal Representative under 35 U.S.C. 117
		☐ Party of Interest under 35 U.S.C. 118		
Prefix	Given Name	Middle Name	Family Name	Suffix
	Jayaram	NM	Nanduri	
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service				
City	Sammamish	State/Province	WA	Country of Residence US
Citizenship under 37 CFR 1.41(b)		US		
Mailing Address of Applicant:				
Address 1	c/o Microsoft Corporation			
Address 2	One Microsoft Way			
City	Redmond	State/Province	WA	
Postal Code	98052	Country	US	
Applicant 3				
Applicant Authority		☒ Inventor		☐ Legal Representative under 35 U.S.C. 117
		☐ Party of Interest under 35 U.S.C. 118		
Prefix	Given Name	Middle Name	Family Name	Suffix
	Nikhil		Kothari	
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service				
City	Sammamish	State/Province	WA	Country of Residence US

Application Data Sheet 37 CFR 1.76		Attorney Docket Number		331991.01	
		Application Number			
Title of Invention	MULTI-MODE TEXT INPUT				
Citizenship under 37 CFR 1.41(b)		US			
Mailing Address of Applicant:					
Address 1		c/o Microsoft Corporation			
Address 2		One Microsoft Way			
City	Redmond	State/Province		WA	
Postal Code	98052	Country	US		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button. Add					

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
☐ An Address is being provided for the correspondence information of this application.			
Customer Number	69346 22801		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	MULTI-MODE TEXT INPUT		
Attorney Docket Number	331991.01	Small Entity Status Claimed ☐	
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	6	Suggested Figure for Publication (if any)	1

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)
☐ Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.			
Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	331991.01
		Application Number	
Title of Invention	MULTI-MODE TEXT INPUT		
Customer Number	69346 22801		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.			
Prior Application Status		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).			
Remove			
Application Number	Country ⁱ	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
			☐ Yes ☒ No
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			

Assignee Information:

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.			
Assignee 1			
If the Assignee is an Organization check here. ☒			
Organization Name	Microsoft Corporation Microsoft Technology Licensing, LLC		
Mailing Address Information:			
Address 1	c/o Microsoft Corporation		
Address 2	One Microsoft Way		
City	Redmond	State/Province	WA
Country	US	Postal Code	98052
Phone Number		Fax Number	
Email Address			
Additional Assignee Data may be generated within this form by selecting the Add button.			

Signature:

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.
--

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		331991.01	
		Application Number			
Title of Invention		MULTI-MODE TEXT INPUT			
Signature		/Leonard J. Hope/		Date (YYYY-MM-DD)	
				2011-05-16	
First Name	Leonard J	Last Name	Hope	Registration Number	44774

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.



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

22801 7590 10/05/2015
LEE & HAYES, PLLC
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

EXAMINER

SIRJANI, FARIBA

ART UNIT

PAPER NUMBER

2659

DATE MAILED: 10/05/2015

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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13/109,023

05/17/2011

Mohan Varthakavi

MS1-6031US

1603

TITLE OF INVENTION: MULTI-MODE TEXT INPUT

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	01/05/2016

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: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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.

22801 7590 10/05/2015
LEE & HAYES, PLLC
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/109,023	05/17/2011	Mohan Varthakavi	MS1-6031US	1603

TITLE OF INVENTION: MULTI-MODE TEXT INPUT

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	01/05/2016

EXAMINER	ART UNIT	CLASS-SUBCLASS
SIRJANI, FARIBA	2659	704-235000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively, 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 has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

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

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
- ☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

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

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/109,023	05/17/2011	Mohan Varthakavi	MS1-6031US	1603
22801	7590	10/05/2015	EXAMINER	
LEE & HAYES, PLLC 601 W. RIVERSIDE AVENUE SUITE 1400 SPOKANE, WA 99201			SIRJANI, FARIBA	
			ART UNIT	PAPER NUMBER
			2659	

DATE MAILED: 10/05/2015

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 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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. 13/109,023	Applicant(s) VARTHAKAVI ET AL.	
	Examiner FARIBA SIRJANI	Art Unit 2659	AIA (First Inventor to File) 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 9/1/2015.
☐ 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 1-5 and 7-21. 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) | 5. ☐ Examiner's Amendment/Comment |
| 2. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 6. ☒ Examiner's Statement of Reasons for Allowance |
| 3. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 7. ☐ Other _____ |
| 4. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____ | |

/FARIBA SIRJANI/
Examiner, Art Unit 2659

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

DETAILED ACTION

Claims 1-5 and 7-21 are pending. Claims 1, 13, and 18 are independent.

This Application is published as U.S. 2012/0296646.

Response to Amendments

1. Objection to Claim 1 is withdrawn in view of the amendments to the Claim.
2. Objection to the Specification is withdrawn in view of the amendments to the Specification and to Figure 1 of the Drawings.

Allowable Subject Matter

Claims 1-5 and 7-21 are allowed.

The independent Claims, when each independent Claim was examined as a whole, were not found in the art that was reviewed.

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

The disclosure of this Application is directed to a two-step process of: 1) receiving content such as a webpage or an application page or a form with different fields, at a computer and looking at the fields of this content to determine if multi-modal input is supported if the content includes a meta tag, a flag, a keyword associated for example with a field in the form; and 2) when the multi-mode input is indicated to be supported based on this flag, then determining a context associated with the fields for which multi-modal input is supported; determining a specific type of input from a plurality of non-textual inputs such as an image or sound based on the context; and capturing

Art Unit: 2659

the non-textual input at the non-textual input device, for example a camera or a microphone or touchscreen, and then converting it to text for input to the application or the form. Context includes the flags and meta data of the content/form that indicates which type of multi-modal input that particular field can receive. Context also, for example, includes location of the device which can give the names of the roads in the vicinity and can be used to filter the input data. This two-step aspect is in the Claim and when considered in the context of the independent Claim as a whole was not found in the prior art.

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."

Close Art of Record

The close art of record was applied to the Claims in the rejections and includes Andrei (U.S. 8,213,917), Di Cristo (U.S. 7,640,160) and Gurram (U.S. 6,999,874).

Conclusion

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

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARIBA SIRJANI whose telephone number is (571)270-1499. The examiner can normally be reached on Monday through Thursday 9am to 4pm.

Art Unit: 2659

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre-Louis Desir can be reached on 571-272-7799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/FARIBA SIRJANI/
Examiner, Art Unit 2659

/PIERRE-LOUIS DESIR/
Supervisory Patent Examiner, Art Unit 2659

Notice of References Cited	Application/Control No. 13/109,023		Applicant(s)/Patent Under Reexamination VARTHAKAVI ET AL.	
	Examiner FARIBA SIRJANI		Art Unit 2659	Page 1 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-2003/0093419 A1	05-2003	Bangalore, Srinivas	G01C21/3664	1/1
*	B	US-2004/0006480 A1	01-2004	Ehlen, Patrick	G10L15/22	704/276
*	C	US-2005/0027538 A1	02-2005	Halonen, Katriina	H04M1/72561	704/275
*	D	US-6,868,383 B1	03-2005	Bangalore; Srinivas	G06K9/00355	704/251
*	E	US-2007/0005363 A1	01-2007	Cucerzan; Silviu-Petru	H04W4/02	704/256
*	F	US-7,363,027 B2	04-2008	Hon; Hsiao-Wuen	G06F17/30899	455/414.1
*	G	US-7,434,158 B2	10-2008	Chi; Chang Yan	G06F17/30905	704/E17.009
*	H	US-2009/0319266 A1	12-2009	Brown; Eric C.	G06F9/4443	704/235
*	I	US-2009/0299745 A1	12-2009	Kennewick; Robert A.	G10L15/32	704/257
*	J	US-2010/0169246 A1	07-2010	Jang; Jun Won	B25J9/161	706/12
*	K	US-2010/0217604 A1	08-2010	Baldwin; Larry	G06Q30/02	704/275
*	L	US-2010/0280983 A1	11-2010	CHO; Jeong-Mi	G10L15/22	706/46
*	M	US-7,853,582 B2	12-2010	Gopalakrishnan; Kumar C.	G06F17/30029	379/88.13

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.

Notice of References Cited	Application/Control No. 13/109,023		Applicant(s)/Patent Under Reexamination VARTHAKAVI ET AL.	
	Examiner FARIBA SIRJANI		Art Unit 2659	Page 2 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-2011/0093264 A1	04-2011	Gopalakrishnan; Kumar	G06F17/30247	704/235
*	B	US-2011/0093271 A1	04-2011	Bernard; David E.	G06F17/2785	704/257
*	C	US-2011/0153324 A1	06-2011	Ballinger; Brandon M.	G10L15/30	704/235
	D	US-				
	E	US-				
	F	US-				
	G	US-				
	H	US-				
	I	US-				
	J	US-				
	K	US-				
	L	US-				
	M	US-				

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	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.

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S22	535	"I3" and (OCR (optical near2 character))	US-PGPUB; USPAT; DERWENT	OR	ON	2014/04/17 08:07
S76	3372	704/235.ccls.	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S77	8418	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).qpc.	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S78	73	koll.in. near detlef	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S79	2	varthakavi.in. near mohan	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S80	5	nanduri.in. near jayaram	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S81	92	kothari.in. near nikhil	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:11
S82	170	S78 S79 S80 S81	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:11
S87	2	"20070124507".pn.	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:43
S88	20	("2007/0124507").URPN.	USPAT	OR	ON	2015/03/18 16:43
S89	20	("2007/0124507").URPN.	USPAT	OR	ON	2015/03/19 10:36
S90	3	S89 and map	USPAT	OR	ON	2015/03/19 10:36
S91	1	"6999874".pn.	USPAT	OR	ON	2015/03/20 10:39
S92	10	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141"	USPAT	OR	ON	2015/03/20 10:42

		"20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.				
S93	10	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141" "20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.	USPAT	OR	ON	2015/03/20 10:43
S94	1	"8700392".pn.	USPAT	OR	ON	2015/03/20 10:49

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	varthakavi.in. near mohan	US-PGPUB; USPAT; UPAD	OR	ON	2015/09/29 09:55
L2	5	nanduri.in. near jayaram	US-PGPUB; USPAT; UPAD	OR	ON	2015/09/29 09:55
L3	94	kothari.in. near nikhil	US-PGPUB; USPAT; UPAD	OR	ON	2015/09/29 09:55
L4	99	L1 L2 L3	US-PGPUB; USPAT; UPAD	OR	ON	2015/09/29 09:55
L5	0	4 and (((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2015/09/29 09:56
L6	0	4 and (((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2015/09/29 09:56
L7	3	4 and (context and address).clm.	US-PGPUB; USPAT	OR	ON	2015/09/29 09:57
L8	7312	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	US-PGPUB; USPAT	OR	ON	2015/09/29 10:42
L9	2586	704/235.ccls.	US-PGPUB; USPAT	OR	ON	2015/09/29 10:43

L10	9178	8 9	US-PGPUB; USPAT	OR	ON	2015/09/29 10:43
L11	4679	G10L15/26.cpc.	US-PGPUB; USPAT	OR	ON	2015/09/29 10:44
L12	11986	10 11	US-PGPUB; USPAT	OR	ON	2015/09/29 10:44
L13	45	l12 and (((multimod\$5 multi-mod\$5) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2015/09/29 10:46
L14	29	l12 and (((multimod\$5 multi-mod\$5) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr)).clm. and (context content subject domain).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2015/09/29 10:46
S1	2108	704/235.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 12:57
S2	8078	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 12:58
S3	1	"20120296644".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:29
S4	60	koll.in. near detlef	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:29
S5	1	"20120296646".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:37
S6	2	varthakavi.in. near mohan	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:39
S7	4	nanduri.in. near jayaram	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:39
S8	91	kothari.in. near nikhil	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:40
S9	95	S6 S7 S8	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:40
S10	1	S6 and S7 and S8	US-PGPUB;	OR	ON	2014/04/15 13:40

			USPAT; UPAD			
S11	1	S9 and "704".clas.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:42
S12	0	S9 and S2	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:42
S13	7	("20070266087" "20080118162" "20090285444" "20090315740" "7610547" "7644649" "7787693").PN.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 07:13
S14	873	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr)	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:08
S15	0	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"05172011"	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:09
S16	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:10
S17	1	"20070124507".pn.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:15
S18	1	S16 and S17	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:17
S19	19	("2007/0124507").URPN.	USPAT	OR	ON	2014/04/16 15:18
S20	49	("20010018653" "20020107696" "20040049388" "20040073431" "20040230637" "20040243415" "20050102146" "20050251746" "20060206340" "20060247925" "20070124507" "20080134102" "20080162143" "20100066684" "20100105364" "20110074693" "20110097693" "20110282664" "20120215531" "20120216134" "20120260176" "20120260177" "4596031" "4726065" "5335276" "5600765" "5749072" "5970452" "6069648" "6167374" "6321197" "6396477" "6421672" "6539350" "6559830" "6804653" "6813603" "6915258" "7023498" "7177814" "7287018" "7292986" "7610199" "7904296" "8185392" "8195319" "8224656" "8255218" "8326636").PN. OR ("8543397").URPN.	US- PGPUB; USPAT	OR	ON	2014/04/16 15:26

S21	27	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517" and (ocr (optical near2 recogni\$4))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/16 16:04
S23	1	"8355915".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:01
S24	20	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/04/17 08:06
S25	20	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/04/17 08:07
S26	36790	l3and (OCR (optical near2 character))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:07
S27	7	S25 and (OCR (optical near2 character))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:08
S28	20	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/04/17 13:10
S29	1	S28 and (OCR (optical near2 character)) and (device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:10
S30	2	S28 and (input near device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:12
S31	3	S28 and (device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:13
S32	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:18
S33	158	S32 and (device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:18
S34	94	S32 and ((identif\$4 detect\$5) adj2 device) and (device near2 input)	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:21
S35	6	S32 and ((identif\$4 detect\$5) adj2 "input device")	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:45
S36	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition	US-PGPUB; USPAT;	OR	ON	2014/04/17 15:19

		recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	UPAD			
S37	552	S36 and (context)	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:19
S38	156	S36 and (context near7 (content display gui form))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:20
S39	5763	(context location locale city town) near7 (((speech voice utterance) near3 (recogni\$4)) (asr))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S40	5571	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S41	2918	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr)) and "704".clas.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S42	8094	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S43	1011	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S44	1515	(context location locale city town) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S45	1397	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S46	32	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42 and (context location) with (((character) near2 (recogni\$4)) (ocr))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S47	6	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42 and (context location) with (((character) near2 (recogni\$4)) (ocr)) and camera	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:38
S48	2	varthakavi.in. near mohan	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46
S49	4	nanduri.in. near jayaram	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46
S50	91	kothari.in. near nikhil	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46

S51	95	S48 S49 S50	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46
S52	26	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/08/27 12:42
S53	21	S52 and context	US-PGPUB; USPAT	OR	ON	2014/08/27 12:42
S54	17	S52 and context and (number numerical)	US-PGPUB; USPAT	OR	ON	2014/08/27 12:42
S55	13	S52 and context and address	US-PGPUB; USPAT	OR	ON	2014/08/27 12:49
S56	36977	((context location domain subject) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation))	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:25
S57	591	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation))	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:26
S58	374	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip)	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:26
S59	0	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip) and @ad<="05172011"	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:27
S60	301	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip) and @ay<"2011"	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:27
S61	192	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:28
S62	198	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip\$1code ((phone telephone) near (number))) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 16:09
S63	112	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS zip\$1code ((phone telephone) near (number))) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 16:10

S64	3862	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number))) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:18
S65	431	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near3 recogni\$5) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:19
S66	311	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near2 recogni\$5) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:19
S67	129	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near2 recogni\$5).ti,ab,bsum,clm. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:19
S68	66	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near recogni\$5).ti,ab,bsum,clm. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:23
S69	55	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near recogni\$5).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:23
S70	0	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (zip\$1code near recogni\$5).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:42
S71	0	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (zip\$1code near3 recogni\$5).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:42
S72	48	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/08/27 17:42
S73	19	S62 and ((zip near code) (zipcode))	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:43
S74	48	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/08/28 10:20
S75	18	S74 and map	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/28 10:21
S83	2	varthakavi.in. near mohan	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/18 16:11
S84	5	nanduri.in. near jayaram	US-	OR	ON	2015/03/18

			PGPUB; USPAT; UPAD			16:11
S85	92	kothari.in. near nikhil	US- PGPUB; USPAT; UPAD	OR	ON	2015/03/18 16:11
S86	97	S83 S84 S85	US- PGPUB; USPAT; UPAD	OR	ON	2015/03/18 16:11
S95	25	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141" "20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.	US- PGPUB; USPAT; UPAD	OR	ON	2015/03/20 10:42
S96	25	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141" "20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.	US- PGPUB; USPAT; UPAD	OR	ON	2015/03/20 10:43
S97	27	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	ON	2015/03/20 13:00
S98	27	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	ON	2015/03/20 13:01
S99	27	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	ON	2015/03/20 13:01
S100	25	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141" "20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.	US- PGPUB; USPAT; UPAD	OR	ON	2015/03/20 13:01
S101	52	S99 S100	US- PGPUB; USPAT; UPAD	OR	ON	2015/03/20 13:02
S102	41	S101 and (GPS map (global near position\$4) location geographic)	US- PGPUB; USPAT;	OR	ON	2015/03/20 13:02

			UPAD			
S103	28	S101 and (GPS map (global near position\$4) geographic)	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/20 13:02
S104	1	"6983307".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/20 14:49
S105	191	((linear near prediction) with (auto\$regress\$5)	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/20 15:54
S106	1625	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (multi\$1modal).ti,ab,bsum. and @ay<"2011"	US-PGPUB; USPAT; UPAD	OR	ON	2015/07/08 11:08
S107	666	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (multi\$1modal).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2015/07/08 11:08
S108	235	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (multi\$1modal near (input device)).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2015/07/08 11:08
S109	13	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2015/07/08 11:47

9/ 29/ 2015 10:55:13 AM
C:\ Users\ fsirjani\ Documents\ EAST\ Workspaces\ 127.wsp

Search Notes 	Application/Control No. 13109023	Applicant(s)/Patent Under Reexamination VARTHAKAVI ET AL.
	Examiner FARIBA SIRJANI	Art Unit 2659

CPC- SEARCHED		
Symbol	Date	Examiner
(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	7/15/2014	fs

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
704	235	7/15/2014	fs

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor search and keyword search of EAST. Search advic from P.D. Shah.	4/15/2014	fs
Refresh inventor search and conduct keyword search of EAST.	8/28/2014	fs
Refresh inventor search and conduct keyword search of EAST. Search consultation with P. D. Shah.	3/19/2015	fs
Inventor search. Allowability advice from P.D. Shah.	9/29/2015	fs

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc. 704/235.ccls. and G10L15/26.cpc.	9/29/2015	fs

/FARIBA SIRJANI/ Examiner.Art Unit 2659	
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Issue Classification 	Application/Control No. 13109023	Applicant(s)/Patent Under Reexamination VARTHAKAVI ET AL.	
	Examiner FARIBA SIRJANI	Art Unit 2659	

CPC						
Symbol					Type	Version
G10L		15	/	26	F	2013-01-01
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CPC Combination Sets				
Symbol	Type	Set	Ranking	Version
				
				

/FARIBA SIRJANI/ Examiner.Art Unit 2659 (Assistant Examiner)	09/29/2015 (Date)	Total Claims Allowed: 20	
/PIERRE-LOUIS DESIR/ Supervisory Patent Examiner.Art Unit 2659 (Primary Examiner)	09/29/2015 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure Fig. 3A

Issue Classification 	Application/Control No. 13109023	Applicant(s)/Patent Under Reexamination VARTHAKAVI ET AL.
	Examiner FARIBA SIRJANI	Art Unit 2659

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	17	17												
2	2	18	18												
3	3	19	19												
4	4	20	20												
5	5														
6	7														
7	8														
8	9														
9	10														
10	11														
11	12														
12	21														
13	13														
14	14														
15	15														
16	16														

/FARIBA SIRJANI/ Examiner.Art Unit 2659 (Assistant Examiner)	09/29/2015 (Date)	Total Claims Allowed: 20	
/PIERRE-LOUIS DESIR/ Supervisory Patent Examiner.Art Unit 2659 (Primary Examiner)	09/29/2015 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure Fig. 3A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO)	
Application Serial Number	13/109,023
Confirmation Number	1603
Filing Date	May 17, 2011
Title of Application	Multi-mode Text Input
First Named Inventor	Mohan Varthakavi
Assignee	Microsoft Technology Licensing, LLC
Group Art Unit	2659
Examiner	Fariba Sirjani
Attorney Docket Number	MS1-6031US

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

From: Leonard J. Hope (Tel. 509-324-9256; Fax 509-323-8979)
Lee & Hayes, PLLC
601 W. Riverside Ave, Suite 1400
Spokane, WA 99201

Customer Number 22801

Response to April 1, 2015 Non-Final Office Action

Applicant's representative files this communication a two-month extension of time. Applicant's representative pays fees by credit card through the EFS Web; however, Applicant's representative hereby authorizes the Commissioner to charge any deficiency of fees and credit any overpayments to Deposit Account Number 12-0769.

Substance of Interview begins on page 2 of this document.

Drawing Amendments begin on page 3 of this document.

Specification Amendments begin on page 4 of this document.

Claim Amendments begin on page 5 of this document.

Remarks begin on page 12 of this document.

SUBSTANCE OF INTERVIEW

Applicants thank the Examiner for her time and effort in conducting a telephonic interview with Applicants' representative on July 8, 2015. During the Interview, the pending rejections under 35 U.S.C. 103 were discussed in light of the features of FIG. 2 of the instant application. Proposed amendments were also discussed that were agreed to overcome the pending rejections. For example, it was agreed that amending the independent claims consistent with the amendments discussed with regard to claim 1 would overcome the current rejections. Accordingly, the attached amendments, which are based on the discussion, are being presented for further consideration and/or search by the Examiner.

DRAWING AMENDMENTS

Please replace FIG. 1 with the attached replacement sheet. No new matter has been introduced through this amendment.

SPECIFICATION AMENDMENTS

Please amend paragraph [0026] as follows:

[0026] According to various implementations, as mentioned above, the ~~input device~~ application 106 also is configured to filter the input **116** based upon contextual information associated with the client device **102** and/or the content **110**. More particularly, the application **106** can be configured to filter the input **116** by altering a vocabulary used by a speech-to-text and/or image-to-text converter based upon various considerations such as, for example, a type of input expected from a user or other entity, an accent, dialect, and/or speech patterns associated with a location at which the client device **102** is operating, local roads or street names, types of fields or form elements associated with a particular data input, combinations thereof, and the like. As such, embodiments of the concepts and technologies disclosed herein can be used to allow filtering of the input **116** to improve the results obtained via use of the application **106**. These and other aspects of the application **106** are described below in more detail.

CLAIM AMENDMENTS

1. (Currently Amended) A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving, at a computer, the content from a source;

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is ~~interacted with via text input~~ supports multi-mode input, the input indicator including explicit meta tags, flags, implicit keywords, or form elements, the input indicator associated with a form element;

determining a context associated with the ~~text input, the context indicating that the text input requires at least one numerical value~~ form element if the input indicator indicates that the form element supports multi-mode input;

determining a type of information to be captured from a plurality of types of information by the computer based on the context for the form element;

activating one or more non-textual input devices associated with the computer according to the type of information to be captured;

~~receiving non-textual~~ capturing multi-mode input, via the one or more non-textual input devices, for interacting with the content, wherein the multi-mode input includes one or more of camera, speech, and touch input comprising map information received from a map interface or mapping application that includes the at least one numerical value; and

converting the ~~non-textual~~ multi-mode input to text including the ~~at least one numerical value.~~

2. (Original) The method of claim 1, further comprising submitting the text to the source.

3. (Original) The method of claim 1, further comprising determining if the content is configured to support multi-mode input.

4. (Original) The method of claim 3, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

5. (Original) The method of claim 3, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content,

analyzing the at least one input field to identify a type of input, and

determining that a non-textual input device is available for entering the input.

6. (Cancelled)

7. (Currently Amended) The method of claim 1, wherein the context indicates which ~~of a plurality of~~ the one or more non-textual input devices is to be used to capture the non-textual input.

8. (Currently Amended) The method of claim 1, further comprising filtering the ~~non-textual~~ multi-mode input based, at least partially, upon the context.

9. (Currently Amended) The method of claim 8, wherein the one or more non-textual input devices comprise[[s]] a microphone for capturing audio, and wherein converting the input to text comprises using a speech-to-text converter to generate the text based upon the audio.

10. (Currently Amended) The method of claim 9, wherein filtering the ~~non-textual~~ multi-mode input comprises modifying a vocabulary associated with the speech-to-text converter.

11. (Currently Amended) The method of claim 8, wherein the one or more non-textual input devices comprise[[s]] a camera for capturing an image, and wherein converting the input to text comprises using an optical character recognition process to generate the text based upon the image.

12. (Currently Amended) The method of claim 11, wherein filtering the ~~non-textual~~ multi-mode input comprises modifying a vocabulary associated with the optical character generation process.

13. (Currently Amended) A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving the content from a source;

identifying at least one input indicator in the content, the at least one input indicator indicating that the content ~~is interacted with via text input~~ supports multi-mode input, the input indicator including explicit meta tags, flags, implicit keywords, or form elements, the input indicator associated with a form element;

determining a context associated with the ~~text input, the context indicating that the text input requires at least one numerical value~~ form element if the input indicator indicates that the form element supports multi-mode input;

determining a type of information to be captured from a plurality of types of information by the computer based on the context for the form element;

activating one or more non-textual input devices associated with the computer according to the type of information to be captured;

~~receiving non-textual~~ capturing multi-mode input, via the one or more non-textual input devices, for interacting with the content, the ~~non-textual input being received via one or more input devices associated with a client device and comprising map information received from a map interface or mapping application that includes the at least one numerical value~~ wherein the multi-mode input includes one or more of camera, speech, and touch input;

converting the ~~non-textual~~ multi-mode input to text including ~~the at least one numerical value;~~ and

submitting the text to the source.

14. (Original) The method of claim 13, further comprising determining if the content is configured to support multi-mode input.

15. (Original) The method of claim 13, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

16. (Original) The method of claim 13, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content,

analyzing the at least one input field to identify a type of input, and

determining that a non-textual input device is available for entering the input.

17. (Currently Amended) The method of claim 13, further comprising:

filtering the ~~non-textual~~ multi-mode input based, at least partially, upon the context.

18. (Currently Amended) A computer storage medium having computer readable instructions stored thereupon that, when executed by a computer, cause the computer to:

receive content from a source, the content including one or more of webpages or application pages;

identify at least one input indicator in the content, ~~the at least one input indicator indicating that the content is interacted with via text input~~ supports multi-mode input, the input indicator including explicit meta tags, flags, implicit keywords, and/or form elements, the input indicator associated with a form element;

determine ~~[[ing]]~~ a context associated with the ~~text input, the context indicating that the text input requires at least one numerical value~~ form element;

determine that the ~~content~~ form element is configured to support interactions via multi-mode input;

determine a type of information to be captured from a plurality of types of information by the computer based on the context for the form element;

activate one or more non-textual input devices associated with the computer according to the type of information to be captured;

~~receive~~ capture the multi-mode input, via the activated input device, for interacting with the content, wherein the multi-mode input includes one or more of camera, speech, and touch input ~~the multi-mode input being received via one or more input devices associated with a client device and comprising map information received from a map interface or mapping application that includes the at least one numerical value;~~

convert the multi-mode input to text ~~including the at least one numerical value;~~
and
submit the text to the source.

19. (Currently Amended) The computer storage medium of claim 18, further comprising computer readable instructions that, when executed by a computer, cause the computer to:

filter the ~~non-textual~~ multi-mode input based, at least partially, upon the context.

20. (Original) The computer storage medium of claim 18, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

21. (Currently Amended) The method of claim 1, wherein the multi-mode input includes map information, the map information includes including a street address having a zip code.

REMARKS

Applicant respectfully requests reconsideration and allowance of all of the claims of the application. The status of the claims is as follows:

- Claims 1-5 and 7-21 were pending at the time of the action.
- Applicant amends claims 1, 8, 10, 12-13, 17-19, and 21.
- Applicant presents claims 1-5 and 7-21 for examination.

The Application supports the claim amendments at least at paragraphs [0031-0039] of the originally filed application and FIG. 2. Accordingly, the amendments submitted herein do not introduce new matter.

Specification Objection

The Specification stands objected to as allegedly including minor typographical errors. Applicant amends the specification herein, as shown above, to address the errors noted in the Office Action. Reconsideration and withdrawal of this object are respectfully requested.

Drawing Objection

Figure 1 stands objected to as having mislabeled elements 118 and 120.

Applicant submits herewith a replacement sheet containing Figure 1 correcting the labeling as supported by the originally filed specification. Reconsideration and withdrawal of this objection are respectfully requested.

Claim Objection

Claim 1 stands objected to as allegedly having informalities. Applicant notes that claim 1 has been amended as discussed in the Interview Summary presented above, and appears to obviate this objection. Reconsideration and withdrawal of this objection are respectfully requested.

Cited Documents

The Office applies the following to reject one or more claims of the Application:

- **Andrel:** Andrel, U.S. Patent No. 8,213,917
- **Di Cristo:** Di Cristo, U.S. Patent No. 7,640,160
- **Gurram:** Gurram, U.S. Patent Application Publication No. 2007/0124507
- **Horvitz:** Horvitz, U.S. Patent Application Publication No. 2007/0136222

Claim rejections under 35 U.S.C. § 103(a)

Claims 1-3, 5, 7-9, 13, 14, 16-19 and 21 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over a combination of Andrel in view of Di Cristo. Claims 4, 15 and 20 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over a combination of Andrel, Di Cristo and Gurram. Claims 10-12 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over a combination of Andrel, Di Cristo and Horvitz. Applicant respectfully traverses these rejections.

Nevertheless, solely in the interest of expediting allowance, Applicant herein amends independent claims 1, 13, and 18 as shown above. Applicant respectfully requests reconsideration in light of the amendments presented herein, which, as discussed during the Interview summarized above, overcome the pending rejections.

The dependent claims are likewise patentable at least by virtue of their dependency in addition to those features set forth therein.

Reconsideration and withdrawal of these rejections in light of the amendments are respectfully requested.

Conclusion

For at least the foregoing reasons, all pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application.

If any issues remain that would prevent allowance of this application, **Applicant requests that the Examiner contact the undersigned representative before issuing a subsequent Action.**

Respectfully Submitted,

Lee & Hayes, PLLC
Representatives for Applicant

By: /Leonard J. Hope/

Dated: September 1, 2015

Leonard J. Hope
(leonardh@leehayes.com; 404-736-1910)
Registration No. 44774

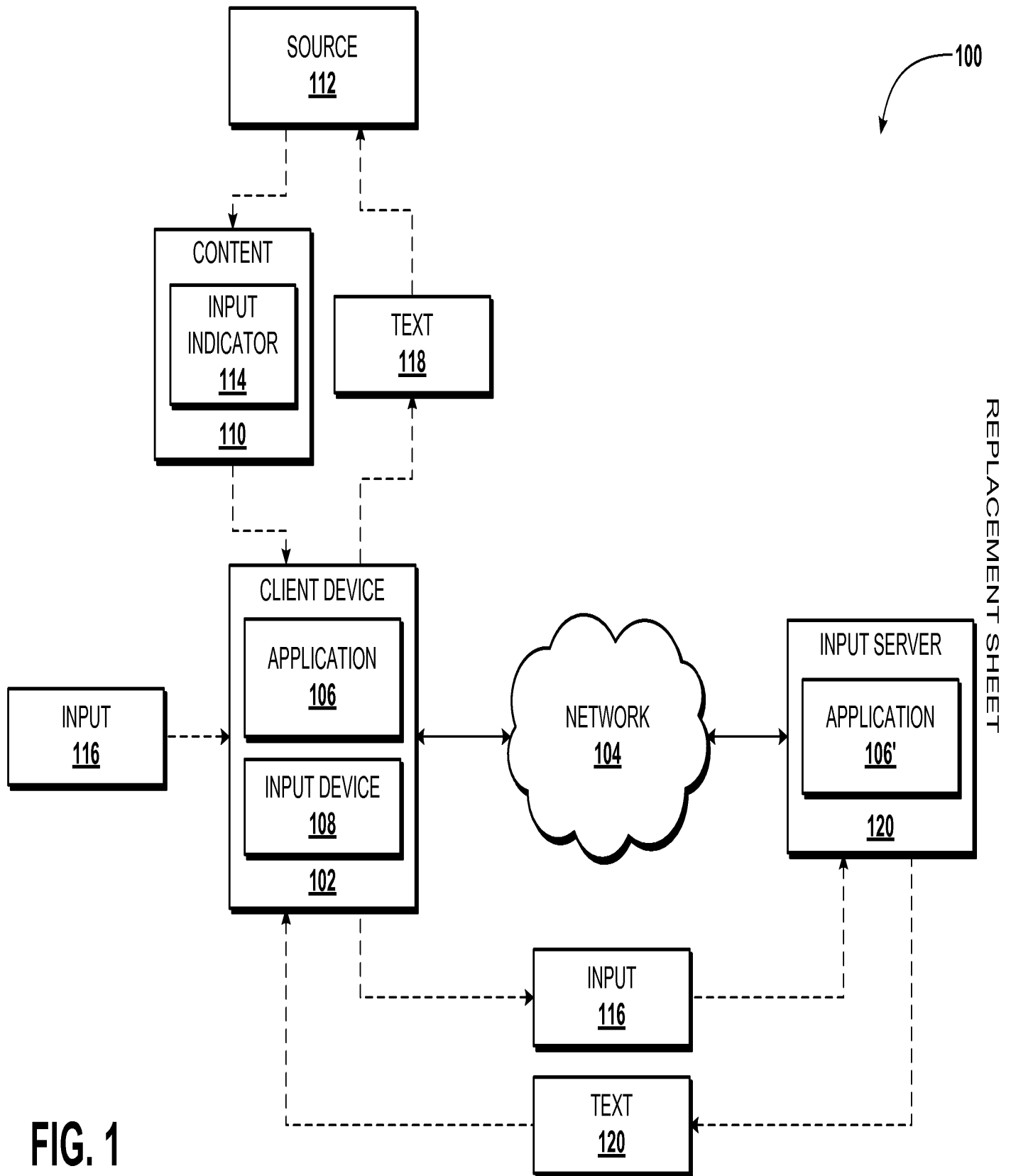


FIG. 1

Electronic Patent Application Fee Transmittal

Application Number:	13109023			
Filing Date:	17-May-2011			
Title of Invention:	MULTI-MODE TEXT INPUT			
First Named Inventor/Applicant Name:	Mohan Varthakavi			
Filer:	Leonard J. Hope/Kathleen Kearney			
Attorney Docket Number:	MS1-6031US			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 2 months with \$0 paid	1252	1	600	600
Miscellaneous:				
Total in USD (\$)				600

Electronic Acknowledgement Receipt

EFS ID:	23367112
Application Number:	13109023
International Application Number:	
Confirmation Number:	1603
Title of Invention:	MULTI-MODE TEXT INPUT
First Named Inventor/Applicant Name:	Mohan Varthakavi
Customer Number:	22801
Filer:	Leonard J. Hope/Kathleen Kearney
Filer Authorized By:	Leonard J. Hope
Attorney Docket Number:	MS1-6031US
Receipt Date:	01-SEP-2015
Filing Date:	17-MAY-2011
Time Stamp:	11:44:33
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$600
RAM confirmation Number	9463
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Patent Owner Ex. 2100

Page 70 of 294

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		1E34833.PDF	160021	yes	14
			e88e98f2d3b6343d542a3232022441ace2250658		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment/Req. Reconsideration-After Non-Final Reject		1	4	
	Claims		5	11	
	Applicant Arguments/Remarks Made in an Amendment		12	14	
Warnings:					
Information:					
2	Drawings-only black and white line drawings	1D09682.PDF	27471	no	1
			d17150f760262651d2adbfb970320c6a019987fd		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30440	no	2
			e7c0e14bf1e8c8bd53bb1f590a06d6ae66e59b5b		
Warnings:					
Information:					
Total Files Size (in bytes):			217932		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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 13/109,023	Filing Date 05/17/2011	☐ To be Mailed
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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), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$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	09/01/2015	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X \$80 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0	X \$420 =	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	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =
	☐ 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.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/DORRETTA BROOKS/

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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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/109,023	05/17/2011	Mohan Varthakavi	MS1-6031US	1603
22801	7590	07/15/2015	EXAMINER	
LEE & HAYES, PLLC			SIRJANI, FARIBA	
601 W. RIVERSIDE AVENUE			ART UNIT	
SUITE 1400			PAPER NUMBER	
SPOKANE, WA 99201			2659	
			NOTIFICATION DATE	
			DELIVERY MODE	
			07/15/2015	
			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):

lhptoms@leehayes.com
usdocket@microsoft.com

<i>Applicant-Initiated Interview Summary</i>	Application No. 13/109,023	Applicant(s) VARTHAKAVI ET AL.	
	Examiner FARIBA SIRJANI	Art Unit 2659	

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

(1) FARIBA SIRJANI. (3) ____.

(2) John Sweet. (4) ____.

Date of Interview: 08 July 2015.

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

Exhibit shown or demonstration conducted: ☒ Yes ☐ No.
 If Yes, brief description: Portions of the Specification for inclusion as potential claim amendments.

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

Claim(s) discussed: 1.

Identification of prior art discussed: Andrel.

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

Potential claim amendments were discussed that would overcome the currently cited art.

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

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

☐ Attachment

/FARIBA SIRJANI/ Examiner, Art Unit 2659	/PIERRE-LOUIS DESIR/ Supervisory Patent Examiner, Art Unit 2659
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Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

<i>Applicant-Initiated Interview Summary</i>	Application No. 13/109,023	Applicant(s) VARTHAKAVI ET AL.	
	Examiner FARIBA SIRJANI	Art Unit 2659	

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

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Potential claim amendments were discussed that would overcome the currently cited art.

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

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

☐ Attachment

/FARIBA SIRJANI/ Examiner, Art Unit 2659	/PIERRE-LOUIS DESIR/ Supervisory Patent Examiner, Art Unit 2659
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Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.



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EXAMINER

SIRJANI, FARIBA

ART UNIT	PAPER NUMBER
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2659

NOTIFICATION DATE	DELIVERY MODE
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04/01/2015

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):

lhptoms@leehayes.com
usdoCKET@microsoft.com

Office Action Summary	Application No. 13/109,023	Applicant(s) VARTHAKAVI ET AL.	
	Examiner FARIBA SIRJANI	Art Unit 2659	AIA (First Inventor to File) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/12/2014.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1-5 and 7-21 is/are pending in the application.
5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-5, 7-21 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

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

Application Papers

- 10) ☒ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

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

Certified copies:

- a) ☐ All b) ☐ Some** c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) ☒ Notice of References Cited (PTO-892) | 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date ____. | 4) ☐ Other: ____. |

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

DETAILED ACTION

Claims 1-5 and 7-21 are pending. Claims 1, 13, and 18 are independent and are amended. Applicant has pointed to paragraphs 48-49 of the Specification, which describe Figure 3E, for support for the added material.

This Application is published as U.S. 2012/0296646.

As explained in the previous Office actions, in view of the supporting Specification particularly in paragraph [0054] of the Specification as filed (same as published), Claim 18 is interpreted as encompassing “a non-transitory computer storage medium.”

Applicant’s amendments and arguments are considered but are moot in view of the new grounds of rejection.

The limitations that correspond to the method shown in Figure 2 of the instant Application are currently scattered among the dependent Claims that are not in a chain of dependencies. Accordingly, the method set forth by the Application does not come together in one place. Amending the independent Claims to include a more complete picture of the method may help further prosecution. Also, certain aspects, such as the search for explicit or implicit indicators at step 204 of Figure 2 and what each type of indicator entails if claimed with particularity may help further prosecution.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/12/2014 has been entered.

Response to Arguments

1. Applicant's Arguments are directed to features added by amendment. New grounds of rejection are presented which make the arguments moot.
2. The amendments are however discussed. As shown below, the amendment to Claims 13 and 18 is consistent with the previous language of Claim 21. The amendment to Claim 1 is different and on its face it would have been if not out right ambiguous, somewhat unclear. However, the arguments provided by the Applicant indicate that Applicant intended all three amendments to be the same and to mean the same as previous Claim 21. Consistent with the intent of the Applicant, for the purpose of applying prior art, the language of the amendment to Claim 1 is interpreted to mean the same as the amendment to Claims 13 and 18.

Claim 1

Applicant states that the features added by amendment were previously present in Claim 21.

Claim 1 presently recites, in part, "receiving non-textual input for interacting with the content comprising map information received from a map interface or mapping application that includes the at least one numerical value," and "converting the non-textual input to text including the at least one numerical value." These features were originally presented in claim 21, and have been incorporated into claim 1 through this amendment. It is submitted that *Gurram, Di Cristo, and Basson*, nor the additionally cited references, teach or suggest these features.

(Applicant's Response, p. 8.)

The previous Claim 21 is provided below:

21. (New) The method of claim 1, wherein receiving the non-textual input comprises receiving map information from a map interface or mapping application, the map information including information associated with the at least one numerical value.

The current amendments, for example, to Claim 1 are as follows:

1. (Currently Amended) A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

- receiving, at a computer, the content from a source;
- identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;
- determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;
- receiving non-textual input for interacting with the content ~~comprising map information received from a map interface or mapping application that includes the at least one numerical value;~~ and
- converting the non-textual input to text including the at least one numerical value.

Claim 21 recited that "receiving non-textual input comprising receiving map information." The amendments to Claim 1, on the other hand, may initially appear as specifying that the received "content [comprises the] map information." This is apparently not what the Applicant intended. Also the remainder of the amended

language makes clear that the “map information [is] received from a map interface” which is more in line with receiving a touch on a touchscreen. The cited paragraphs 48-49 that provide support for the amendments appear below:

[0048] Turning now to FIG. 3E, a screen display 300E generated by the application 106 is illustrated, according to an illustrative embodiment. In some embodiments, the screen display 300E is presented by the application 106 in response to selection of a UI control for providing input via selection of a location on a map, though this is not necessarily the case. The screen display 300E includes a map display 340 for displaying a map. Although not shown in the embodiment illustrated in FIG. 3E, it should be understood that the map display 340 can include zoom controls, panning controls, and/or other controls for manipulating the displayed map, if desired.

[0049] In addition to displaying a map, the map display 340 also can display a current location indicator 342. The screen display 300E also includes a UI control 344 for entering location using a current location detected or known by the client device 102 and a UI control 346 for cancelling providing input via selection of allocation on a map. In the illustrated embodiment, a user selects a point on the map display 340 by touching the screen of the client device 102 at the point. In response to touching the screen of the client device 102 at the point, the application 106 determines coordinates, a street address, and/or another indication of location corresponding to the selected point. The coordinates, street address, and/or other indication can be converted to the text 118, as explained herein, and the text 118 can be submitted.

According to the cited paragraphs, and paragraphs 41-49 that discuss the UI controls, the map shown in Figure 3E is the “content” that is received at step 202 of Figure 2. This “content”/“map interface” also permits to “receiving non-textual input” in

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form of touching the map. Thus, the “non-textual input comprises *map information* received from a map interface.”

Claims 13 and 18

Applicant refers to the arguments provided regarding Claim 1. The amendments to Claims 13 and 18 are different and *do* include the limitations previously in Claim 21. For Claims 13 and 18, the amendment states: “receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device and comprising map information received from a map interface or mapping application that includes the at least one numerical value.” In this case, the Claim language specifies that the “receiving map information” is part of the process of “receiving non textual input.” Therefore, Applicant appears to have intended the language of Claims 13 and 18 for the amendments to Claim 1 as well.

The previously cited Basson taught this feature because the user in Basson first provided an input, i.e. the “non-textual input,” and then as a part of this process the system provided him the map in order to disambiguate the “non-textual input.” This is like receiving the map interface as content and then touching the map at a particular point as “non-textual input.”

3. Regarding Basson, Applicant argued that Basson does not teach receiving the map information:

USPTO PATENT EXAMINER'S REPORT

However, this screen is merely a graphical display, and does not include map information received from a map application or a map interface as encompassed by claim 1. Instead, the map display allows receipt of user information, rather than map information. Furthermore, although there appears to be at least one numerical value displayed in the graphical display illustrated in FIG. 8 of *Basson*, *Basson* does not describe in what form the input is received. *Basson* simply states that the user "points" to the screen, and does not disclose the receipt of information from the map. Instead, *Basson* appears to disclose that the application underlying the map itself performs some operation, but does not disclose providing that information such that it can be received, as encompassed by claim 1.

(Applicant's Response, p. 8.)

IN REPLY, *Basson* is no longer the reference that is cited for this feature.

However, note the statement by the Applicant: "*Basson* simply states that the user 'points' to the screen, and does not disclose the receipt of the information from the map." The fact that the user can point to the screen means that the map information is being shown to the user on the screen. Figure 8 of *Basson* shows the map and has circles where the user touched the screen on the map. When a map is being shown to a user, the user or the user device has received the map information. If the Applicant intends something specific by "map information" the specific point must be claimed in the claim language with particularity. Applicant appears to place emphasis on the source of the map information as "receipt of information from a map application or interface." (Applicant's Response, p. 9.) Figure 8 of *Basson* is at least a "map interface" and arguably a "map application" because it knows the location pointed to by the user.

Specification

1. The disclosure is objected to because of the following informalities: Throughout many paragraphs of the Specification (starting with [0024] of the Specification as filed

which corresponds to the same paragraph number [0024] in the published Application) the text input is referred to as "text 118" and the input server is referred to as "input server 120." This is contrary to Figure 1 which shows the input server with reference label 118 and text with 120. This switch of the reference labels must be corrected. (Note that considering that this switch of the reference labels appears to be consistent throughout the Specification another choice is to amend Figure 1 to show the input server with label 120 and the text with label 118.)

Appropriate correction is required.

2. Paragraph [0026] is objected to for an informality that may be remedied by the following suggested amendment: "[0026] According to various implementations, as mentioned above, the ~~input device~~ application 106 also is configured to filter the input 116 based upon contextual information associated with the client device 102 and/or the content 110. More particularly, *the application 106* can be configured to filter the input 116 by altering a"

Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities: Claim 1 includes language that may be improved by the following *suggested* amendment: "receiving non-textual input for interacting with the content, the non-textual input comprising map information received from a map interface or mapping application that includes the at least one numerical value." (The suggested amendment is consistent with the intention of the Applicant as expressed in the arguments on p. 8 of the Applicant's response.)

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5, 7-9, 13-14, 16-19 and 21 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Andrel (U.S. 8,213,917) in view of Di Cristo (U.S. 7,640,160).

Regarding **Claim 1**, **Andrel** teaches:

1. A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving, at a computer, the content from a source; [Andrel, Figure 2, “mobile device 202” is the “computer” of the Claim and receives “voice and data”/“content” from the “multimodal platform 204” which is the “source” of the Claim. “The markup content handler 204f provides the visual markup or data content associated with the visual interface.” Col. 4, lines 50-52. See Background for the types of “content” discussed: “The market for ring tones, wall papers, and other content is a large and rapidly growing business for mobile operators and content providers. In addition, a significant number of commercial transactions take place over wireless application protocol (WAP) capable mobile devices. The content in the top-level menu visual interface of the WAP capable mobile devices need to be easily accessible to the user in

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order to effectively perform commercial transactions. Content that cannot be easily found and located by subscribers directly is a lost revenue opportunity for mobile operators and content providers.” Col. 1, lines 34-43.]

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input; [Andrel, Figure 1, “accept *text* input from the user 103 b” indicates that text is one of the acceptable and available forms of input. Col. 3, lines 45-67. “Figure 2: The “input indicators” of the Claim are the “input parameters” that are provided from the “multimodal platform 204” to the “multimodal application 202a,” that is on the “mobile device 202,” and determine what the UI will look like/sound like and indicate which types of inputs should be input. The “input indicators” of the Claim are also mapped to “menu structure in a portal on a mobile device” of Andrel. The “input indicators” of the Claim are also mapped to the “structure of data” in a text document of Andrel. “The multimodal application 202a that accepts a plurality of modes of input, can be implemented in a number of ways. For example, the multimodal application can be implemented ... as a browser plug-in, etc. When a visual application, for example ... browser requires a search, the visual application invokes the multimodal application 202a with appropriate input parameters. The input parameters comprise the search grammar, the search service to use, the base home URL to visit in order to display, etc. If required, an appropriate audible prompt, such as text, for text to speech (TTS) output, or as an audio file can be provided. The multimodal application's 202a appearance can be customized by specifying user interface (UI) parameters.” Col. 5, line 63 to Col. 6,

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lines 23. "The method disclosed herein also reduces the time taken to access a desired menu choice by optimally enabling multiple modes on a mobile device. For example, the method disclosed herein can reduce the time of choosing a desired menu from approximately thirty seconds and five key clicks down to three seconds and only one key click. Even if the menu structure in a portal on the mobile device were to change frequently, the multimodal application would enable the user to continue to effectively conduct transactions on the mobile device without difficulty." Col. 2, line 61 to Col. 3, line 3. "XML is a text document that contains mark-up tags for conveying the structure of data and enables efficient data interchange between devices on the intranet." Col. 5, lines 51-55. (Note the broad definition of this parameter in the Specification of the instant Application.)]

determining a context associated with the text input, the context indicating that the text input requires at least one numerical value; [Andrel, two different contexts of address input and banking are provided that require the input of numerical values: "The user needs to fill in their residential address in the "shipping address" section of the form displayed on the mobile device. The user then brings up the InputBar, and fills in the form using multiple modes of input, for example, fills in the form using both voice commands and the keypad." Col. 6, lines 55-60. "... In a retail banking application, with "From Account", "To Account", and "Amount" boxes on the screen, the user may enter the number "5000" in the amount box using the keypad, then simply speak "Transfer from Account 123 to Account 456; Enter" and all three

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entry boxes will be populated correctly and the information delivered to the multimodal platform 204....” Col. 7, line 65 to Col. 8, line 12.]

receiving non-textual input for interacting with the content comprising map information received from a map interface or mapping application that includes the at least one numerical value; and [Andrel, Figures 1-3. In the following examples the “content” shown on the UI is a map and the “non-textual input” also conveys “map information” such as an address that includes a New Jersey zip code. “In the case of simultaneous multimodality, where the device has both modes active, the user can communicate in the visual and voice mode simultaneously. For example, in a mapping example, a user can point to a street on the map and say: "Plan route, avoiding this street."” Col. 7, line 65 to Col. 8, line 12. “The following example illustrates the multimodal application's 202a ability to provide multimodal capabilities. Consider a case wherein a user desires to locate "Edison, N.J. 08817" using the weblink Yahoo Maps on the user's mobile device. The user can double tap on the multimodal application 202a residing in the UI of the mobile device, and then the user can provide the spoken command: "Locate Edison, N.J. 08817". The method and system disclosed herein provides a means for mixing visual input tapping and speech inputs in a manner that is an easy and natural experience to the end user. Once the user has finished inputting the search parameters, the user can submit the map request.” Col. 8, lines 50-61.]

converting the non-textual input to text including the at least one numerical value. [Andrel, Figure 3, shows a “synchronization 305” which combines the various modes of input. See Col. 6, lines 60-67 for one example of speech recognition in Andrel.]

Andrel includes speech recognition. But it teaches that various modes of input are available and also teaches that the data input through various modes (text, visual, audio, haptic) are synchronized and sent back to the “multimodal platform 204.” Andrel does not teach that all of the data is necessarily converted to text before being sent back to the “multimodal platform 204.”

Di Cristo has considerable overlap and teaches most of the limitations:

receiving, at a computer, the content from a source; [Di Cristo, Figures 1 and 7 show the overall system that may be distributed or combined variably such that the “data sources”/“source” of the Claim may be local or remote. Col. 10, lines 50-51. Figure 1 shows the “multimodal devices 155”: “The multimodal devices 155 may receive and/or provide one or more types of communications including speech, text, digital audio files, and other communications.” Col. 13, lines 1-4. Figure 2 shows details of “agents 106” that are the “source” and provide “content” of the Claim: “According to one embodiment of the invention, knowledge agents may return results of questions as responses to users.” Col. 12, lines 41-42.]

...

determining a context associated with the text input, the context indicating that the text input requires at least one numerical value; [Di Cristo, “domain” and “context” of Di Cristo both teach “context” of the Claim: “According to one embodiment of the invention, the text message may be searched for a particular character, group of characters, word, group of words, and other text combinations. The text combination may be compared against entries in a context description grammar that is associated

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with each agent 106.” Col. 13, lines 44-49. Figure 4A, “determine the domain of expertise 406,” or 4B, “Determine the domain of the command 456.” Figure 4A and 4B pertain to speech recognition when the input begins as an utterance and not as text; but see: “According to yet another alternative embodiment of the invention, context information may be determined from a command or request that is presented as a text message and/or a command or request that is presented as a verbal utterance and processed using a multi-pass automatic speech recognition module that transcribes the verbal utterance to a text message.” Col. 13, lines 29-35. The examples of “context” used for speech recognition, thus also pertaining to the text input, included “time, location, numbers, dates, categories (e.g., music, movies, television, addresses, etc.)” which include “numerical values” both expressly and implicitly. Col. 14, lines 4-6.]

receiving non-textual input for interacting with the content comprising map information received from a map interface or mapping application that includes the at least one numerical value; and [Di Cristo identifies context in order to perform speech recognition on the received speech. Speech is non-textual input. Figures 4A or 4B begin with “capture user utterance” which teaches “receiving non-textual input” of the Claim. Regarding “content comprising map information,” Di Cristo teaches that the interface can present non-speech information such as graphical info: “According to another embodiment of the invention, the non-speech interface may be provided in addition to, or in place of, the speech unit interface. For example, the non-speech interface may communicate non-speech information, such as textual communications, graphical or tabular information, or other non-speech information.” Col. 2, lines 26-32.

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The “content” being specifically map information is suggested by the applications for the invention are counted as including: “Some example applications for the invention includes but are not limited to the following: ... map, location and direction applications;” Col. 8, lines 55-65. Additionally, many of the applications counted in Col. 8, line 55 to Col. 9, line 53, include “map information” if not outright a map: Addresses, calendar information, movie locator, yellow and white pages, Etc.]

converting the non-textual input to text including the at least one numerical value.[Di Cristo, all speech input is converted to text. The context that is identified is used to identify the pertinent speech recognizer which recognizes speech into text. Thus, when the input is date, address, or map related, the recognized text would include the “at least one numerical value.” See also, abstract: “Systems and methods are provided for receiving speech and non-speech communications of natural language questions and/or commands, transcribing the speech and non-speech communications to textual messages, and executing the questions and/or commands.”]

Andrel and Di Cristo pertain to multi-modal input including speech and non-speech components and it would have been obvious to combine the method of Di Cristo that specifically mentions recognizing speech into text with the method of Andrel that does not convert the multimodal to text before transmission to the source to arrive at an alternative method of transmitting the input by combining prior art elements according to known methods to yield predictable results or as simple substitution of one known

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element for another to obtain predictable results. See MPEP 2141, KSR, 550 U.S.

at___, 82 USPQ2d at 1396

Regarding **Claim 2**, Andrei submits all of the collected multimodal input to the “multimodal platform 204” which is the “source.” See, e.g., Figure 2, steps 104 and 109. But, Andrei does not teach that all of the input is converted to text before transmitting.

Di Cristo teaches:

... claim 1, further comprising

submitting the text to the source. [Di Cristo, Figure 1, the inputs to the “multimodal device 155” or the “speech unit 128” are converted to text before interacting with the “knowledge agents 106” that are the source. The distributed nature of the system shown in Figure 7 and discussed as one alternative of Figure 1 teaches that the source may be a distant server. " 1. A system for processing multi-modal natural language inputs, comprising: a multi-modal voice user interface configured to receive a multi-modal input, the multi-modal input including a natural language utterance and a non-speech input, wherein a transcription module coupled to the multi-modal voice user interface is configured to transcribe the non-speech input to create a non-speech-based transcription; a multi-pass speech recognition module configured to transcribe the natural language utterance into text; a merging module configured to merge the text of the transcribed utterance and the non-speech-based transcription to create a merged transcription; a plurality of domain agents, ... and a response generating module configured to identify one or more of the plurality of domain agents that are configured

to process requests in the most likely context for the multi-modal input, the response generating module configured to: communicate a request to the identified domain agents, ...; and generate a response to the multi-modal input using content gathered as a result of the identified domain agents processing the request.” Col. 29, lines 17-61.]

The rationale for combination similar to that provided for Claim 1. The conversion of all of the input to text is taught by Di Cristo, submission of collected information back to the source is taught by both references.

Regarding **Claim 3**, **Andrel** teaches:

... claim 1, further comprising

determining if the content is configured to support multi-mode input.

[Andrel, "Moreover, the multimodal platform 204 may be adapted to change between these multiple modes of communication, or make multiple modes available simultaneously, according to instructions or existing communications conditions.” Col. 4, lines 15-20. The “instructions” of Andrel that teach whether multiple modes are available teaches this Claim.]

Regarding **Claim 5**, **Andrel** teaches:

... claim 3, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content, [Andrel, teaches examples of form filling that include identifying the input fields in Col. 6, lines 24-41.]

analyzing the at least one input field to identify a type of input, and [Andrel, in the “simultaneous multimodality,” Col. 7, line 65 to Col. 8, lines 12, the user can enter a number in an “amount box” and then speak the command asking for the transfer from one account to another. This indicates that the “multimodal application 202a” knows which types of input are accepted for each field.]

determining that a non-textual input device is available for entering the input. [Andrel, the “multimodal application 202a” can find the suitable device for each type of input: “The multimodal application 202a provides multiple modes of communication, inclusive of but not restricted to the voice mode, visual and haptic modes. When the voice mode is used, the microphone on the mobile device captures audio commands of the user. When the visual mode is used, data is captured on the mobile device on the keypad. For example, alpha-numeric data which may be represented in American standard code for information interchange (ASCII) form can be visually displayed. The multimodal application 202a interfaces with the native visual and voice resources of the mobile device. ... The mobile device comprises a communication component and computing component. The computing component typically has ... means for input, for example, a keypad, touch screen, microphone, etc.” Col. 5, line 63 to Col. 6, line 23.]

Regarding **Claim 7**, **Andrel** teaches:

... claim 1, wherein the **context indicates which of a plurality of input devices is to be used to capture the non-textual input**. [Andrel, for example in the context of

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banking each part of the input may be done in a different mode which requires a different device: "... In a retail banking application, with "From Account", "To Account", and "Amount" boxes on the screen, the user may enter the number "5000" in the amount box using the keypad, then simply speak "Transfer from Account 123 to Account 456; Enter" and all three entry boxes will be populated correctly and the information delivered to the multimodal platform 204...." Col. 7, line 65 to Col. 8, line 12.]

Regarding **Claim 8**, Andrei uses "usage context" to enable differently types of multimodality. Col. 6, lines 24-26. Andrei does not mention filtering the input based on context (i.e. domain specific recognition).

Di Cristo teaches:

... claim 1, further comprising **filtering the non-textual input based, at least partially, upon the context**. [Di Cristo, Figure 7, "context manager 702." Figures 4A and 4B, "determine the domain of expertise/command 405/456." "According to another aspect of the invention, the system may process and respond to questions, requests and/or commands. Keywords or context may be used to determine whether the received utterance and/or textual message includes a request or command." Col. 4, lines 39-45. See also, Di Cristo, Col. 29, lines 17-62 sets forth the use of context in speech recognition, matching contexts, selecting the context having the highest matching score, sending the task to the agents that process the most likely context, etc.

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Processing according to context teaches filtering according to context. Di Cristo processes both text and speech inputs after determining their context.]

Andrel and Di Cristo pertain to multimodal input including speech and character recognition and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the context-based filtering/selection/recognition domain/context of Di Cristo with the multi-modal input of Andrel to provide for more accurate recognition results. Use of the location or domain of speech to select the appropriate dictionary for ASR is well-known and practiced in the art. This is use of a known technique to improve similar devices, methods, or products in the same way. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Regarding **Claim 9**, **Andrel** teaches:

... claim 8,

wherein the input device comprises a microphone for capturing audio, and [Andrel, "When the voice mode is used, the microphone on the mobile device captures audio commands of the user." Col. 5, lines 63-67.]

wherein converting the input to text comprises using a speech-to-text converter to generate the text based upon the audio. [Andrel does not teach that all input is converted to text but it does teach speech recognition is some modes of entry: "The "DictationBar" version of the multimodal application 202a is applied where the input is freeform, such as a text or e-mail message. For example, consider a case where a user sends a short message service (SMS) reply. The user selects DictationBar to input the

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text. The user can then visually correct the text that is not spelled accurately, i.e., recognized incorrectly. The user can accomplish this correction activity by visually selecting the inaccurate text section and thereafter speaking or modifying the text section by visually typing or selecting from alternate displayed text that has a close recognition confidence.” Col. 6, lines 60-67.]

While Andrel teaches speech recognition, the particular “converting the input to text” of all the various inputs is not taught by Andrel.

Di Cristo teaches:

wherein converting the input to text comprises using a speech-to-text converter to generate the text based upon the audio. [Di Cristo allows multimodal input but for further processing such as domain/context determination and preparing a command or query or formulating the response to a query, it deals in text. Figure 1, “speech recognition engine 120.”]

The rationale for combination is as provided for Claim 1. While Andrel is also capable of speech recognition, Di Cristo was combined with Andrel because Di Cristo converts the multimodal input into text before further processing. Therefore, Di Cristo was combined for teaching the last limitation of Claim 1, i.e. “converting the input to text” which is further limited by this Claim.

Claim 13 is a method claim with steps corresponding to limitations of Claims 1 and 2 and is rejected under similar rationale.

Andrel teaches:

13. A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving the content from a source; [Andrel, Figure 2, “mobile device 202” is the “computer” of the Claim and receives “voice and data “/“content” from the “multimodal platform 204” which is the “source” of the Claim.]

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input; [Andrel, Figure 1, “accept *text* input from the user 103 b” indicates that text is one of the acceptable and available forms of input. Col. 3, lines 45-67. Figure 2: The “input indicators” of the Claim are the “input parameters” of Andrel that are provided from the “multimodal platform 204” to the “multimodal application 202a,” and determine what the UI will look like/sound like and indicate which types of inputs should be input. Col. 5, line 63 to Col. 6, lines 23. The “input indicators” is also taught by the “structure of data” in a text document that determines what inputs it may take.]

determining a context associated with the text input, the context indicating that the text input requires at least one numerical value; [Andrel, two different contexts of address input and banking are provided that require the input of numerical values. Col. 6, lines 55-60 and Col. 7, line 65 to Col. 8, line 12.]

receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device and comprising map information received from a map interface or mapping application that includes the at least one numerical value; [Andrel, Figures 1-3.

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The examples of the “content” shown on the UI include a map and the “non-textual input” also conveys “map information” such as an address that includes a New Jersey zip code. “The following example illustrates the multimodal application's 202a ability to provide multimodal capabilities. Consider a case wherein a user desires to locate "Edison, N.J. 08817" using the weblink Yahoo Maps on the user's mobile device. The user can double tap on the multimodal application 202a residing in the UI of the mobile device, and then the user can provide the spoken command: "Locate Edison, N.J. 08817"....” Col. 8, lines 50-61.]

converting the non-textual input to text including at least one numerical value; and [Not required in Andrel.]

submitting the text to the source. [Andrel submits all of the collected multimodal input to the “multimodal platform 204” which is the “source.” See, e.g., Figure 2, steps 104 and 109. This input may include text from 103 b of Figure 1 but this is not a text obtained from all of the multi-modal inputs.]

Andrel does not teach that all of the data is necessarily converted to text before being sent back to the “multimodal platform 204.”

Di Cristo teaches:

converting the non-textual input to text including the at least one numerical value; and [Di Cristo, all speech input is converted to text. Also, when the input is date, address, or map related, the recognized text would include the "at least one numerical value." “Systems and methods are provided for receiving speech and non-speech communications of natural language questions and/or commands, transcribing the

speech and non-speech communications to textual messages, and executing the questions and/or commands.” Abstract.]

submitting the text to the source. [Di Cristo, Figure 1, the inputs to the “multi-modal device 155” or the “speech unit 128” are converted to text before interacting with the “knowledge agents 106” that are the source. The distributed nature of the system shown in Figure 7 and discussed as one alternative of Figure 1 teaches that the source may be a distant server. See, e.g., claim 1 of Di Cristo that is a succinct statement of one embodiment Col. 29, lines 17-61.]

Rationale for combination is similar to that provided for Claim 1.

Claim 14 is a method claim with steps corresponding to limitations of Claim 3 and is rejected under similar rationale.

Claim 16 is a method claim with steps corresponding to limitations of Claim 5 and is rejected under similar rationale.

Claim 17 is a method claim with steps corresponding to limitations of Claim 8 and is rejected under similar rationale.

Claim 18 is a computer-readable-medium (CRM) claim with steps corresponding to limitations of Claim 1 and is rejected under similar rationale.

Claim 19 is a computer-readable-medium (CRM) claim with steps corresponding to limitations of Claim 8 and is rejected under similar rationale.

Regarding **Claim 21**, **Andrel** teaches or suggests:

... claim 1, **wherein the map information includes a street address having a zip code.** [Andrel teaches that zip code is part of the information included in the map interface: "The following example illustrates the multimodal application's 202a ability to provide multimodal capabilities. Consider a case wherein a user desires to locate "Edison, N.J. 08817" using the weblink Yahoo Maps on the user's mobile device. The user can double tap on the multimodal application 202a residing in the UI of the mobile device, and then the user can provide the spoken command: "Locate Edison, N.J. 08817"." Col. 8, lines 50-61. Andrel suggests the "street address" as part of the presented map because "Yahoo Maps" includes street addresses.]

2. Claims 4, 15, and 20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Andrel and Di Cristo in view of Gurram (U.S. 2007/0124507).

Regarding **Claim 4**, Andrel teaches that tags in an XML document determine the interchange of data: "XML is a text document that contains mark-up tags for conveying the structure of data and enables efficient data interchange between devices on the intranet." Col. 5, lines 58-60. This arguably teaches the use of meta tags as input indicators. Andrel and Di Cristo do not expressly teach the use of meta tags that indicate multimode input.

Gurram expressly teaches:

... claim 3, **wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling**

the multi-mode input. [Gurram, Figure 11, the steps of “parse document object model 1102,” and “extract metadata 1103” and “apply metadata and associations 1104.”

“[0061] A variety of parameters may be stored as metadata in repository 1019. In one embodiment, a web browser may receive a page, for example, and metadata may be associated with particular display objects. The metadata may define the relationships between the objects in the page and associated grammars to enable voice commands and modes. The metadata may be customized for each page depending on the number and types of display objects included in the page. For example, fields may have associated metadata that define grammars corresponding to voice commands for selecting the fields and corresponding to the voice modes associated with the fields. The grammars included in each page for each object may be used to constrain the voice inputs and improve recognition accuracy, for example. Voice metadata may be associated with older legacy systems so that such pages can become enabled for multimode functionality described herein. Similarly, the metadata may define the associations between the objects and annotations or the authentication parameters, for example.”]

Andrel, Di Cristo and Gurram pertain to multimode input interfaces and it would have been obvious to one of ordinary skill in the art to use the metadata that is explicitly defined in Gurram for indicating the nature of the objects on an interface and the type of input they may take with Andrel/Di Cristo that do not discuss this point (while they may include the same known method) as combining prior art elements according to known

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methods to yield predictable results. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Claim 15 is a method claim with steps corresponding to limitations of Claim 4 and is rejected under similar rationale.

Claim 20 is a computer-readable-medium (CRM) claim with steps corresponding to limitations of Claim 15 and is rejected under similar rationale.

3. Claims 10-12 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Andrel and Di Cristo in view of Horvitz (U.S. 2007/0136222).

Regarding **Claim 10**, Andrel does not discuss details of speech recognition. Di Cristo teaches “The decoded speech may be processed by the speech recognition engine 120 using the context description grammar module 112, among other information.” Col. 12, lines 23-26. The grammar module includes user profile which includes user’s preferred terminology. It is known in the art that different dictionaries/vocabularies are used for speech recognition in different domains/contexts. Change of dictionary according to language (GPS/location) is also well known. This is well-known but not express in either Andrel or Di Cristo.

Horvitz teaches:

... claim 9, wherein **filtering the non-textual input comprises modifying a vocabulary associated with the speech-to-text converter**. [Horvitz, Figure 6, “speech recognition 610” and “language model library 626.” Figure 8 showing discovery

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of context for speech recognition and Figure 10 showing the use of context/GPS in selecting the language model. Language model includes the dictionary/vocabulary.]

Andrel, Di Cristo and Horvitz pertain to multi-modal input and to the use of context of the input in furthering recognition (speech or OCR). Accordingly, it would have been obvious to one of ordinary skill in the art to modify the Andrel/Di Cristo that include speech recognition and consider context with Horvitz which uses context prominently for choice of the language model, and therefore the dictionary/vocabulary, as use of a known technique to improve similar devices, methods, or products in the same way. See MPEP 2141, KSR, 550 U.S. at ___, 82 USPQ2d at 1396.

Regarding **Claim 11**, Andrel and Di Cristo do not have a camera.

Horvitz teaches:

wherein the input device comprises a camera for capturing an image, and [Horvitz, Figure 6, “multi-modal input component 606” includes “capture and analysis component 608” that includes a camera: “[0048] ... In this particular implementation, the context component 602 can include a multi-modal inputs component 606 that can employ a plurality of input sensing subsystems for receiving data about the user context. For example, the sensing subsystems can include a camera for image capture, an audio subsystem for capturing audio signals, a GPS receiver for receiving GPS signals, temperature and humidity subsystems for receiving temperature and humidity data, microphone, and so on.”]

wherein converting the input to text comprises using an optical character recognition process to generate the text based upon the image. [Horvitz, Figure 6, “[0049] The context component 602 can also include a capture and analysis component 608 that interfaces to the multi-modal inputs component 606 to receive and process sensing and/or input data. For example, a speech recognition component 610 is included to process speech signals, as well as a text recognition component 612 for capturing and performing optical character recognition (OCR) on text images and/or raw text data. An image recognition component 614 operates to receive and process image data from a camera. For example, based on image analysis, guesses can be made as to structures, signs, notable places, and/or people who may be captured in the image.....”]

Andrel, Di Cristo and Horvits pertain to multimodal input including speech and it would have been obvious to one of ordinary skill in the art at the time of the invention to add the camera and OCR capability of Horvitz with the input devices of method of Andrel/Di Cristo to provide for input of data via capture of an image by a camera in addition to haptic mode of Andrel. This is use of a known technique to improve similar devices, methods, or products in the same way. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Regarding **Claim 12**, Andrel and Di Cristo do not teach OCR.

Horvitz teaches:

... claim 11, wherein **filtering the non-textual input comprises modifying a vocabulary associated with the optical character generation process.** [Horvitz, the “context” such as GPS data is used to determine the language used for image, text or speech recognition. The change of language, changes the vocabulary/dictionary associated with the recognition process. See Figure 10, 1004 and 1006 where context is determined and then the speech translation is based on the GPS data. “[0020] FIG. 12 illustrates a methodology of utilizing reasoning for selection of a language module.” “[0037] In another implementation, if the text captured in the image of the sign was in a foreign language, analysis of the text can be helpful in determining the user context as well as in selecting a suitable language model for processing the foreign language and output presentation to the device user and/or a person indigenous to the user context.”]

Refer to rationale provided for Claim 11 which provides why Andrei/Di Cristo may be modified by or combined with Horvitz.

Conclusion

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

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARIBA SIRJANI whose telephone number is (571)270-1499. The examiner can normally be reached on Monday through Thursday 9am to 4pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre-Louis Desir can be reached on 571-272-7799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/FARIBA SIRJANI/
Examiner, Art Unit 2659

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,112,174 A	08-2000	Wakisaka et al.	704/251
*	B	US-6,983,307 B2	01-2006	Mumick et al.	709/205
*	C	US-6,999,874 B2	02-2006	Seto et al.	701/539
*	D	US-2008/0255843 A1	10-2008	Sun et al.	704/250
*	E	US-7,555,725 B2	06-2009	Abramson et al.	715/781
*	F	US-2010/0312469 A1	12-2010	Chen, Hong	701/207
*	G	US-2011/0022393 A1	01-2011	Waller et al.	704/270
*	H	US-7,945,566 B2	05-2011	James et al.	707/723
*	I	US-8,176,438 B2	05-2012	Zaman et al.	715/815
*	J	US-8,213,917 B2	07-2012	Anderl, Ewald C.	455/414.4
*	K	US-8,255,218 B1	08-2012	Cohen et al.	704/248
*	L	US-8,700,392 B1	04-2014	Hart et al.	704/231
*	M	US-8,862,475 B2	10-2014	Ativanichayaphong et al.	704/270.1

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	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	

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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2007/0136222	06-2007	Horvitz, Eric J.	706/045
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

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

☐ Claims renumbered in the same order as presented by applicant		☐ CPA		☐ T.D.		☐ R.1.47			
CLAIM		DATE							
Final	Original	04/15/2014	08/26/2014	03/19/2015					
	1	✓	✓	✓					
	2	✓	✓	✓					
	3	✓	✓	✓					
	4	✓	✓	✓					
	5	✓	✓	✓					
	6	✓	-	-					
	7	✓	✓	✓					
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Search Notes 	Application/Control No. 13109023	Applicant(s)/Patent Under Reexamination VARTHAKAVI ET AL.
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CPC- SEARCHED		
Symbol	Date	Examiner
(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	7/15/2014	fs

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
704	235	7/15/2014	fs

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor search and keyword search of EAST. Search advic from P.D. Shah.	4/15/2014	fs
Refresh inventor search and conduct keyword search of EAST.	8/28/2014	fs
Refresh inventor search and conduct keyword search of EAST. Search consultation with P. D. Shah.	3/19/2015	fs

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/FARIBA SIRJANI/ Examiner.Art Unit 2659	
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S22	535	"I3" and (OCR (optical near2 character))	US-PGPUB; USPAT; DERWENT	OR	ON	2014/04/17 08:07
S76	3372	704/235.ccls.	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S77	8418	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S78	73	koll.in. near detlef	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S79	2	varthakavi.in. near mohan	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S80	5	nanduri.in. near jayaram	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:10
S81	92	kothari.in. near nikhil	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:11
S82	170	S78 S79 S80 S81	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:11
S87	2	"20070124507".pn.	US-PGPUB; USPAT; DERWENT	OR	ON	2015/03/18 16:43
S88	20	("2007/0124507").URPN.	USPAT	OR	ON	2015/03/18 16:43
S89	20	("2007/0124507").URPN.	USPAT	OR	ON	2015/03/19 10:36
S90	3	S89 and map	USPAT	OR	ON	2015/03/19 10:36
S91	1	"6999874".pn.	USPAT	OR	ON	2015/03/20 10:39
S92	10	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141"	USPAT	OR	ON	2015/03/20 10:42

		"20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.				
S93	10	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141" "20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.	USPAT	OR	ON	2015/03/20 10:43
S94	1	"8700392".pn.	USPAT	OR	ON	2015/03/20 10:49

EAST Search History (I nterference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2108	704/235.ccls.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 12:57
S2	8078	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 12:58
S3	1	"20120296644".pn.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:29
S4	60	koll.in. near detlef	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:29
S5	1	"20120296646".pn.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:37
S6	2	varthakavi.in. near mohan	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:39
S7	4	nanduri.in. near jayaram	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:39
S8	91	kothari.in. near nikhil	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:40
S9	95	S6 S7 S8	US- PGPUB; USPAT;	OR	ON	2014/04/15 13:40

			UPAD			
S10	1	S6 and S7 and S8	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:40
S11	1	S9 and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:42
S12	0	S9 and S2	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:42
S13	7	("20070266087" "20080118162" "20090285444" "20090315740" "7610547" "7644649" "7787693").PN.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/16 07:13
S14	873	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr)	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:08
S15	0	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"05172011"	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:09
S16	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:10
S17	1	"20070124507".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:15
S18	1	S16 and S17	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:17
S19	19	("2007/0124507").URPN.	USPAT	OR	ON	2014/04/16 15:18
S20	49	("20010018653" "20020107696" "20040049388" "20040073431" "20040230637" "20040243415" "20050102146" "20050251746" "20060206340" "20060247925" "20070124507" "20080134102" "20080162143" "20100066684" "20100105364" "20110074693" "20110097693" "20110282664" "20120215531" "20120216134" "20120260176" "20120260177" "4596031" "4726065" "5335276" "5600765" "5749072" "5970452" "6069648" "6167374" "6321197" "6396477" "6421672" "6539350" "6559830" "6804653" "6813603" "6915258" "7023498" "7177814" "7287018" "7292986" "7610199"	US-PGPUB; USPAT	OR	ON	2014/04/16 15:26

		"7904296" "8185392" "8195319" "8224656" "8255218" "8326636").PN. OR ("8543397").URPN.				
S21	27	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517" and (ocr (optical near2 recogni\$4))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/16 16:04
S23	1	"8355915".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:01
S24	20	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/04/17 08:06
S25	20	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/04/17 08:07
S26	36790	l3and (OCR (optical near2 character))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:07
S27	7	S25 and (OCR (optical near2 character))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:08
S28	20	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/04/17 13:10
S29	1	S28 and (OCR (optical near2 character)) and (device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:10
S30	2	S28 and (input near device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:12
S31	3	S28 and (device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:13
S32	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:18
S33	158	S32 and (device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:18
S34	94	S32 and ((identif\$4 detect\$5) adj2 device) and (device near2 input)	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:21
S35	6	S32 and ((identif\$4 detect\$5) adj2 "input device")	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:45

S36	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:19
S37	552	S36 and (context)	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:19
S38	156	S36 and (context near7 (content display gui form))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:20
S39	5763	(context location locale city town) near7 (((speech voice utterance) near3 (recogni\$4)) (asr))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S40	5571	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S41	2918	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr)) and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S42	8094	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S43	1011	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S44	1515	(context location locale city town) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S45	1397	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S46	32	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42 and (context location) with (((character) near2 (recogni\$4)) (ocr))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S47	6	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42 and (context location) with (((character) near2 (recogni\$4)) (ocr)) and camera	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:38
S48	2	varthakavi.in. near mohan	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46
S49	4	nanduri.in. near jayaram	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46
S50	91	kothari.in. near nikhil	US-	OR	ON	2014/08/26

			PGPUB; USPAT; UPAD			07:46
S51	95	S48 S49 S50	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46
S52	26	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	ON	2014/08/27 12:42
S53	21	S52 and context	US- PGPUB; USPAT	OR	ON	2014/08/27 12:42
S54	17	S52 and context and (number numerical)	US- PGPUB; USPAT	OR	ON	2014/08/27 12:42
S55	13	S52 and context and address	US- PGPUB; USPAT	OR	ON	2014/08/27 12:49
S56	36977	((context location domain subject) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation))	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:25
S57	591	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation))	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:26
S58	374	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip)	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:26
S59	0	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip) and @ad<="05172011"	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:27
S60	301	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip) and @ay<"2011"	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:27
S61	192	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip) and @ay<"2011" and "704".clas.	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:28
S62	198	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip\$1code ((phone telephone) near (number))) and @ay<"2011" and "704".clas.	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 16:09
S63	112	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS zip\$1code ((phone telephone) near	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 16:10

		(number))) and @ay<"2011" and "704".clas.				
S64	3862	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number))) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:18
S65	431	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near3 recogni\$5) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:19
S66	311	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near2 recogni\$5) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:19
S67	129	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near2 recogni\$5).ti,ab,bsum,clm. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:19
S68	66	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near recogni\$5).ti,ab,bsum,clm. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:23
S69	55	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near recogni\$5).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:23
S70	0	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (zip\$1code near recogni\$5).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:42
S71	0	((((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (zip\$1code near3 recogni\$5).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:42
S72	48	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/08/27 17:42
S73	19	S62 and ((zip near code) (zipcode))	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:43
S74	48	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/08/28 10:20
S75	18	S74 and map	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/28 10:21
S83	2	varthakavi.in. near mohan	US-PGPUB; USPAT;	OR	ON	2015/03/18 16:11

			UPAD			
S84	5	nanduri.in. near jayaram	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/18 16:11
S85	92	kothari.in. near nikhil	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/18 16:11
S86	97	S83 S84 S85	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/18 16:11
S95	25	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141" "20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/20 10:42
S96	25	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141" "20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/20 10:43
S97	27	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2015/03/20 13:00
S98	27	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2015/03/20 13:01
S99	27	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2015/03/20 13:01
S100	25	("20080201148" "20060106610" "8078467" "20050055218" "20070100618" "6112174" "7143035" "7206747" "7742923" "20050102141" "20090240668" "20080133238" "20100312469" "20050055210" "7437296" "20070233487" "20030204399" "7308404" "6999874" "20110022393" "20070033043" "5995918" "7555725" "20030125869" "20090292540").PN.	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/20 13:01
S101	52	S99 S100	US-PGPUB; USPAT; UPAD	OR	ON	2015/03/20 13:02
S102	41	S101 and (GPS map (global near position\$4)	US-	OR	ON	2015/03/20

		location geographic)	PGPUB; USPAT; UPAD			13:02
S103	28	S101 and (GPS map (global near position\$4) geographic)	US- PGPUB; USPAT; UPAD	OR	ON	2015/03/20 13:02
S104	1	"6983307".pn.	US- PGPUB; USPAT; UPAD	OR	ON	2015/03/20 14:49
S105	191	(linear near prediction) with (auto\$regress\$5)	US- PGPUB; USPAT; UPAD	OR	ON	2015/03/20 15:54

3/ 22/ 2015 10:04:06 AM
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/109,023	05/17/2011	Mohan Varthakavi	331991.01

22801
LEE & HAYES, PLLC
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

CONFIRMATION NO. 1603
IMPROPER CPOA LETTER



Date Mailed: 12/18/2014

NOTICE REGARDING POWER OF ATTORNEY

This is in response to the power of attorney filed 12/12/2014. The power of attorney in this application is not accepted for the reason(s) listed below:

- The power of attorney is from an assignee and the statement required by 37 CFR 3.73(c) has not been received.

/ttkim/

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

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL (Submitted Only via EFS-Web)

Application Number	13/109,023	Filing Date	5/17/2014	Docket Number (if applicable)	MS1-6031US	Art Unit	2659
First Named Inventor	Mohan Varthakavi			Examiner Name	Fariba Sirjani		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☐ Other _____

☒ Enclosed

☒ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to
Deposit Account No 120769

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

☐ Applicant Signature

Signature of Registered U.S. Patent Practitioner			
Signature	/Leonard J. Hope/	Date (YYYY-MM-DD)	2014-12-12
Name	Leonard J. Hope	Registration Number	44774

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO)	
Application Serial Number	13/109,023
Confirmation Number	1603
Filing Date	5/17/2011
Title of Application	Multi-Mode Text Input
First Named Inventor	Mohan Varthakavi
Assignee	Microsoft Corporation
Group Art Unit	2659
Examiner	Fariba Siriani
Attorney Docket Number	Ms1-6031US

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

From: Leonard J. Hope (Tel. 509-324-9256; Fax 509-323-8979)
Lee & Hayes, PLLC
601 W. Riverside Ave, Suite 1400
Spokane, WA 99201

Customer Number 22801

Response to September 12, 2014 Final Office Action

Applicants' representative files this communication with a Request for Continued Examination. Applicants' representative pays fees by credit card through the EFS Web; however, Applicants' representative hereby authorizes the Commissioner to charge any deficiency of fees and credit any overpayments to Deposit Account Number 12-0769.

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 8 of this paper.

Amendments to the Claims

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

1. (Currently Amended) A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving, at a computer, the content from a source;

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;

determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;

receiving non-textual input for interacting with the content comprising map information received from a map interface or mapping application that includes the at least one numerical value; and

converting the non-textual input to text including the at least one numerical value.

2. (Original) The method of claim 1, further comprising submitting the text to the source.

3. (Original) The method of claim 1, further comprising determining if the content is configured to support multi-mode input.

4. (Original) The method of claim 3, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

5. (Original) The method of claim 3, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content,
analyzing the at least one input field to identify a type of input, and
determining that a non-textual input device is available for entering the input.

6. (Cancelled)

7. (Previously Presented) The method of claim 1, wherein the context indicates which of a plurality of input devices is to be used to capture the non-textual input.

8. (Previously Presented) The method of claim 1, further comprising filtering the non-textual input based, at least partially, upon the context.

9. (Original) The method of claim 8, wherein the input device comprises a microphone for capturing audio, and wherein converting the input to text comprises using a speech-to-text converter to generate the text based upon the audio.

10. (Original) The method of claim 9, wherein filtering the non-textual input comprises modifying a vocabulary associated with the speech-to-text converter.

11. (Original) The method of claim 8, wherein the input device comprises a camera for capturing an image, and wherein converting the input to text comprises using an optical character recognition process to generate the text based upon the image.

12. (Original) The method of claim 11, wherein filtering the non-textual input comprises modifying a vocabulary associated with the optical character generation process.

13. (Currently Amended) A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving the content from a source;

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;

determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;

receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device and comprising map information received from a map interface or mapping application that includes the at least one numerical value;

converting the non-textual input to text including the at least one numerical value; and

submitting the text to the source.

14. (Original) The method of claim 13, further comprising determining if the content is configured to support multi-mode input.

15. (Original) The method of claim 13, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

16. (Original) The method of claim 13, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content,

analyzing the at least one input field to identify a type of input, and

determining that a non-textual input device is available for entering the input.

17. (Previously Presented) The method of claim 13, further comprising:
filtering the non-textual input based, at least partially, upon the context.

18. (Currently Amended) A computer storage medium having computer readable instructions stored thereupon that, when executed by a computer, cause the computer to:

- receive content from a source;
- identify at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;
- determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;
- determine that the content is configured to support interactions via multi-mode input;
- receive the multi-mode input for interacting with the content, the multi-mode input being received via one or more input devices associated with a client device and comprising map information received from a map interface or mapping application that includes the at least one numerical value;
- convert the multi-mode input to text including the at least one numerical value;
- and
- submit the text to the source.

19. (Previously Presented) The computer storage medium of claim 18, further comprising computer readable instructions that, when executed by a computer, cause the computer to:

- filter the non-textual input based, at least partially, upon the context.

20. (Original) The computer storage medium of claim 18, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

21. (Currently Amended) The method of claim 1, wherein ~~receiving the non-textual input comprises receiving map information from a map interface or mapping application; the map information includes a street address having a zip code including information associated with the at least one numerical value.~~

Remarks/Arguments

Claims 1-5 and 7-21 are pending in this application. In the Office Action mailed on September 12, 2014 (hereinafter “the Office Action”), Claims 1-4, 7, 13-15, 18, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2007/0124507 to Gurram (hereinafter “*Gurram*”) in view of U.S. Patent 7,640,160 to Di Cristo et al. (hereinafter “*Di Cristo*”). Claims 5 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gurram* and *Di Cristo* in view of U.S. Publication No. 2007/0043758 to Bodin (hereinafter “*Bodin*”). Claims 8-12, 17, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gurram* and *Di Cristo* in view of U.S. Publication No. 2009/0144056 to Aizenbud-Reshef (hereinafter “*Aizenbud-Reshef*”). Claim 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gurram* and *Di Cristo* in view of U.S. Publication No. 2005/0251746 to Basson (hereinafter “*Basson*”).

By this amendment, claims 1, 13, 18, and 21 have been amended. Full support and antecedent basis for these amendments may be found in, at least, the originally filed specification at paras. [0048-0049]. Accordingly, no new matter has been introduced by this amendment. Following entry of this amendment, claims 1-5 and 7-21 will remain pending in the present application. For at least the reasons set forth below, the Applicants respectfully request reconsideration and immediate allowance of this application.

Rejections Under 35 U.S.C. § 103(a)

The rejections of claim 1-5 and 7-21 under 35 U.S.C. § 103(a) as being unpatentable over *Gurram* and *Di Cristo* in view of *Bodin*, *Aizenbud-Reshef*, or *Basson* are respectfully traversed as these references, taken alone or in combination, fail to disclose or suggest each and every feature of claims 1-5 and 7-21. At least some of the reasons why *Gurram* and *Di Cristo*, nor the other cited references, do not teach or suggest each and every element of claims 1-5 and 7-21 are set forth below.

Independent Claim 1

Claim 1 presently recites, in part, “receiving non-textual input for interacting with the content comprising map information received from a map interface or mapping application that includes the at least one numerical value,” and “converting the non-textual input to text including the at least one numerical value.” These feature were originally presented in claim 21, and have been incorporated into claim 1 through this amendment. It is submitted that *Gurram*, *Di Cristo*, and *Basson*, nor the additionally cited references, teach or suggest these features.

Initially, Applicants note that the Office Action admits that *Gurram* and *Di Cristo* lack these features. (Office Action, pp. 23-24). For example, *Gurram* and *Di Cristo* are directed to dictation by a user, and are entirely unrelated to features of a mapping application. (*Gurram*, FIGS. 6-8; *Di Cristo*, FIGS. 1 and 3). The Office Action, however, cites *Basson* as allegedly rendering these features obvious. Applicants disagree.

Basson is directed to resolving ambiguous input from a user by displaying the input for a pre-determined amount of time, and waiting for the user to correct the ambiguity in that input. (*Basson*, FIG. 1, Abstract, paras. [0051-0054]). *Basson* describes a single example where a displayed map is used to receive input from a user. (*Basson*, FIG. 8). *Basson* stipulates that a user can point to two or more locations on a screen. (*Basson*, para. [0048]).

However, this screen is merely a graphical display, and does not include map information received from a map application or a map interface as encompassed by claim 1. Instead, the map display allows receipt of user information, rather than map information. Furthermore, although there appears to be at least one numerical value displayed in the graphical display illustrated in FIG. 8 of *Basson*, *Basson* does not describe in what form the input is received. *Basson* simply states that the user “points” to the screen, and does not disclose the receipt of information from the map. Instead, *Basson* appears to disclose that the application underlying the map itself performs some operation, but does not disclose providing that information such that it can be received, as encompassed by claim 1.

Accordingly, *Basson* does not disclose the receipt of information from a map interface or map application. Furthermore, it is clear that as the receipt of information

from a map application or interface is absent from *Basson*, *Basson* cannot disclose or suggest the missing map information contain at least one numerical value. Thus, *Basson* does not cure the deficiencies of *Gurram* and *Di Cristo*.

For all of the reasons presented above, *Gurram*, *Di Cristo*, and *Basson* do not disclose each and every feature of independent claim 1. Therefore, claim 1 is patentable over *Gurram*, *Di Cristo*, and *Basson*, taken alone or in any combination. Reconsideration and withdrawal of this rejection is respectfully requested.

Independent Claims 13 and 18

Amended independent claims 13 and 18 include recitations that are not taught or suggested by *Gurram*, *Di Cristo*, and *Basson*. Claim 13 sets forth “receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device and comprising map information received from a map interface or mapping application that includes the at least one numerical value.” As discussed in detail above with reference to claim 1, *Gurram*, *Di Cristo*, and *Basson* fail to suggest such features. *Gurram* and *Di Cristo* are merely directed to voice dictation or free-form dictation for generating text absent any context or determination of the same. (*Gurram*, FIGS. 6-8; *Di Cristo*, FIGS. 1 and 3). Furthermore, *Basson* fails to suggest receiving map information including information associated with the at least one numerical value as encompassed by claim 13. Accordingly, *Gurram*, *Di Cristo*, and *Basson* fail to disclose each and every feature of claim 13. Therefore, claim 13 is patentable over *Gurram*, *Di Cristo* and *Basson*. Claim 18 is patentable for at least similar reasons to those presented above with regard to claims 1 and 13. Reconsideration and withdrawal of these rejections are respectfully requested.

Dependent Claims 2-4, 7, 14-15, and 20-21

Dependent claims 2-4, 7, 14-15, and 20-21 depend from an allowable claim and, therefore, are allowable over *Gurram*, *Di Cristo*, *Basson*, and the remaining references of record. Claims 2-4, 7, 14-15, and 20 also include recitations that are not taught, suggested, or described in *Gurram*, *Di Cristo*, and *Basson*. For example, claim 21 sets forth “the map information includes a street address having a zip code.” There is no

such teaching or suggestion of this recitation in any of the cited references. Accordingly, *Gurram*, *Di Cristo*, and *Basson* do not teach or suggest each and every recitation of these claims, and dependent claims 2-4, 7, 14-15, and 20-21 are therefore also in condition for immediate allowance.

Conclusion

For at least the foregoing reasons, all pending claims are in condition for allowance.

Applicants respectfully request reconsideration and prompt issuance of the application.

If any issues remain that would prevent allowance of this application, **Applicants request that the Examiner contact the undersigned representative before issuing a subsequent Action.**

Respectfully Submitted,

Lee & Hayes, PLLC
Representatives for Applicant

By: /Leonard J. Hope/
Leonard J. Hope
(leonardh@leehayes.com; 404-736-1910)
Registration No. 44774

Dated: 12/12/2014

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.

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B or equivalent) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5. If the Power of Attorney by Applicant form is not accompanied by this transmittal form or an equivalent, the Power of Attorney will not be recognized in the application.

Application Number	13/109,023
Filing Date	5/17/2014
First Named Inventor	Mohan Varthakavi
Title	Multi-mode Text Input
Art Unit	2659
Examiner Name	Fariba Sirjani
Attorney Docket Number	MS1 - 6031US

SIGNATURE of Applicant or Patent Practitioner

Signature	/Leonard J. Hope/	Date	12/12/2014
Name	Leonard J. Hope	Telephone	404-736-1926
Registration Number	44774		

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

☒ *Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

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:

22801

OR



I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) 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 patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:



The address associated with the above-mentioned Customer Number

OR



The address associated with Customer Number:

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Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):



Inventor or Joint Inventor (title not required below)



Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)



Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)



Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

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)

9/23/13

Name

Sandip S. Minhas

Title

Assistant Secretary, Microsoft Corporation

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.



Total of forms are submitted.

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Patent Owner Ex. 2100

Page 139 of 294

Electronic Patent Application Fee Transmittal

Application Number:	13109023			
Filing Date:	17-May-2011			
Title of Invention:	MULTI-MODE TEXT INPUT			
First Named Inventor/Applicant Name:	Mohan Varthakavi			
Filer:	Leonard J. Hope			
Attorney Docket Number:	331991.01			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Request for Continued Examination	1801	1	1200	1200
Total in USD (\$)				1200

Electronic Acknowledgement Receipt

EFS ID:	20945833
Application Number:	13109023
International Application Number:	
Confirmation Number:	1603
Title of Invention:	MULTI-MODE TEXT INPUT
First Named Inventor/Applicant Name:	Mohan Varthakavi
Customer Number:	22801
Filer:	Leonard J. Hope
Filer Authorized By:	
Attorney Docket Number:	331991.01
Receipt Date:	12-DEC-2014
Filing Date:	17-MAY-2011
Time Stamp:	13:10:35
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 1200
RAM confirmation Number	10687
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	Request for Continued Examination (RCE)	18O8495.PDF	639168	no	3
			aa28325f20fd660a21f5872994018ec497c3afe4		
Warnings:					
Information:					
2		18S0513.PDF	124114	yes	10
			f7191929ac85751493b480502828a615010d00de		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment Submitted/Entered with Filing of CPA/RCE		1	1	
	Claims		2	7	
	Applicant Arguments/Remarks Made in an Amendment		8	10	
Warnings:					
Information:					
3	Power of Attorney	18S0523.PDF	519617	no	2
			95f11f710e6b028ee5368bf5a6fbab1426637784		
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	30266	no	2
			82839b6a4389effcfac7f498c70a7dc475f4cc74		
Warnings:					
Information:					
Total Files Size (in bytes):			1313165		

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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.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/109,023	Filing Date 05/17/2011	☐ To be Mailed
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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 \$ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$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	12/12/2014	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X \$80 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X \$420 =	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	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =
	☐ 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.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/KAREN VESTAL/

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

APPLICATION NUMBER	PATENT NUMBER	GROUP ART UNIT	FILE WRAPPER LOCATION
13/109,023		2659	



Correspondence Address/Fee Address Change

The following fields have been set to Customer Number 22801 on 10/08/2014

- Correspondence Address
- Maintenance Fee Address

The address of record for Customer Number 22801 is:

22801
LEE & HAYES, PLLC
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201



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MICROSOFT CORPORATION ONE MICROSOFT WAY REDMOND, WA 98052			EXAMINER SIRJANI, FARIBA	
			ART UNIT 2659	PAPER NUMBER
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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):

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Office Action Summary	Application No. 13/109,023	Applicant(s) VARTHAKAVI ET AL.	
	Examiner FARIBA SIRJANI	Art Unit 2659	AIA (First Inventor to File) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/8/2014.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1-5 and 7-21 is/are pending in the application.
5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-5 and 7-21 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

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

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

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

Certified copies:

- a) ☐ All b) ☐ Some** c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) ☒ Notice of References Cited (PTO-892) | 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date ____. | 4) ☐ Other: ____. |

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

DETAILED ACTION

Claims 1-5 and 7-21 are pending. Claims 1, 13, and 18 are independent. Claim 6 was canceled and new Claim 21 was added.

Canceled Claim 6 included: "claim 1, further comprising determining a context associated with the content." Amendments to the independent Claims include: "determining a context associated with the text input, the context indicating that the text input requires at least one numerical value" and that the non-textual input is converted to text "including the at least one numerical value."

This Application is published as U.S. 2012/0296646.

As explained in the previous Office action, Claim 18 is interpreted as encompassing "a non-transitory computer storage medium."

Applicant's amendments and arguments are considered but are moot in view of the new grounds of rejection necessitated by the amendments.

This action is Final.

Response to Amendments

Rejection of Claims 1-6, 8 under 35 U.S.C. 101 for being directed to an abstract idea is withdrawn. Applicant amended Claim 1 to state "receiving, at a computer, the content from a source." All of the Claim limitations are interpreted as being performed at the same "computer."

Response to Amendments

Applicant's Arguments are directed to features added by amendment. The amendments have necessitated new grounds of rejection which make the arguments moot.

The Applicant has argued that "determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;" and "converting the non-textual input to text including the at least one numerical value" are not taught by the cited reference, in particular, by Gurram. Gurram, e.g. Figure 6, shows an address field which includes numbers that must be entered, either by speech or by the stylus. Also, regarding the flowchart of Figure 3, Gurram teaches "[0053] ... For example, a page may include three fields for entering text labeled "Name," "Address," and "Comments." Different voice commands for the page may be associated with each of the different fields to allow users to select each field using a voice input. For example, one voice command may be associated with the "Name" field (e.g., a grammar used to recognize when a user speaks the word "name"), and other voice commands may be associated with other fields to allow users to activate the other fields with voice commands. Each display object may also be associated with different voice modes as illustrated at 303. The "Name" field in the previous example may be associated with a "short text entry" mode, for example, so that a user may speak a name and the voice input is automatically recognized and entered as text into the field...."

The field associated with “address” almost always requires input of numbers. However, addresses may exist that do not include a number and Gurram does not specifically and necessarily require “numbers”. Therefore, a secondary reference is cited.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 7, 13-15, 18, and 20 are rejected under pre-AIA 35 U.S.C. 102(b) as being unpatentable over Gurram (U.S. 2007/0124507) in view of Di Cristo (U.S. 7,640,160).

Note that both voice and stylus entries in Gurram are non-text entries because the stylus entry is subjected to image recognition and then converted to text.

Regarding **Claim 1**, **Gurram** teaches:

1. A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving, at a computer, the content from a source; [Gurram, Figure 1, “program display 110”, Figure 3, “Display one or more objects to a user 301.” Figures 5-9 for examples of “Application Page 501.” Figure 10 showing the “server 1030” being connected to “clients 1001 to 1040.” Figure 12, “receive document object model 1101.”]

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input; [Gurram, See Figure 5, and paragraph [0055] as an example of the different fields that are displayed to the user and receive various types of input. Figure 3, “[0053] ... At 301, one or more display objects are displayed to a user. As mentioned above, display objects may include a page, sections of a page, images, or fields of a page (e.g., text entry fields or links)....” Figure 11, “[0063] FIG. 11 is an example flow chart 1100 of a multimodal interaction across a network according to one embodiment of the present invention. At 1101, a system (e.g., a client) may receive a document object model ("DOM"). The DOM is logical representation of a page and the objects in a page, and typically defines a tree structure. At 1102, the DOM is parsed. At 1103, metadata and associations embedded in the DOM are extracted and loaded into the multimodal software layer. Associations may be stored as an association model for defining the association between voice and stylus inputs with particular objects in a display, for example. At 1104, the metadata and associations are applied to the objects in the DOM and the components of the multimodal software, and the page is displayed to the user. ...”]

determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;

receiving non-textual input for interacting with the content; and [Gurram, Figure 5, “command, voice mode, stylus mode 511, 513, 515, 523, 525.” Voice mode is the non-textual model. Figure 3, “receive voice or stylus inputs 307.” Figure 6. “[0056] ... In FIG. 6, a user interface page 600 (e.g., a web page) is displayed to a user with a

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variety of display objects, some of which may prompt a user for input. ... A "Record" button 650 prompts a user for inputs that may be associated with the page as a whole. ... A user may select the "Record" button using either voice commands (i.e., speaking the word "Record") or through a touch screen command (i.e., touching the tip of the stylus to the record button). When the computer receives the command specifying the "Record" button 650, the software may cause an input field 651 to appear and activate voice and touch screen inputs. ... Thus, if a user begins speaking, the system will automatically record the user's spoken comments and the comments will automatically be associated with the page for future access. As mentioned above, in some embodiments voice entries may be recognized and translated into text messages, and similarly, stylus entries may be recognized by a text recognition engine and translated into text messages.”]

converting the non-textual input to text including the at least one numerical value. [Gurram, Figure 4, “process voice input signal according to voice mode 406.” Figure 6, “[0056] ... voice entries may be recognized and translated into text messages” Figure 1, “[0050] Each display object may further have associated voice modes 140 and manual select modes 150 (e.g., a touch screen mode). For example, a data entry field may be associated with a "short text entry" voice mode. A short text entry voice mode may cause the system to automatically enable a microphone and speech recognizer so that if a user provides a voice input, the voice input is translated into text (i.e., recognized) and the text may be entered into the data entry field.....” Figure 12, “[0064] ... The voice or stylus input may be automatically translated into a text entry by

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a recognizer and entered into field in accordance with a voice or stylus mode, such as a short text entry mode, associated with the product code field....”]

Gurram includes contexts that may and usually do include numbers but Gurram does not require contexts that in turn require a numerical portion.

Cristo teaches:

determining a context associated with the text input, the context indicating that the text input requires at least one numerical value; [Di Cristo, “According to one embodiment of the invention, the text message may be searched for a particular character, group of characters, word, group of words, and other text combinations. The text combination may be compared against entries in a context description grammar that is associated with each agent 106.” Col. 13, lines 44-49. “According to another embodiment of the invention, if a match is not found, or only a partial match is found, between the text message and active grammars, then a knowledge-enhanced speech recognition system may be used to semantically broaden the search. The knowledge-enhanced speech recognition system may be used to determine the intent of the request and/or to correct false recognitions. The knowledge-enhanced speech recognition may access a set of expected contexts that are stored in a context stack to determine a most likely context. The knowledge-enhanced speech recognition may use context specific matchers that are able to identify context such as time, location, numbers, dates, categories (e.g., music, movies, television, addresses, etc.) and other context. The results of any match may be used to generate a command and/or request that is communicated to agents 106 for additional processing.” Col. 13, line

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60 to Col. 14, line 20. Contexts such as time and numbers and dates must include "at least one numerical value" of the Claim.]

receiving non-textual input for interacting with the content; and [Di Cristo identifies context in order to perform speech recognition on the received speech which is non-textual. See also, abstract: "Systems and methods are provided for receiving speech and non-speech communications of natural language questions and/or commands, transcribing the speech and non-speech communications to textual messages, and executing the questions and/or commands." Abstract. Figures 4A or 4B which begin with "capture user utterance" is "receiving non-textual input" of the Claim. The "content" of the Claim was mapped to the fields on a form of Gurram. Di Cristo overlaps with Gurram and teaches: "According to another embodiment of the invention, the non-speech interface may be provided in addition to, or in place of, the speech unit interface. For example, the non-speech interface may communicate non-speech information, such as textual communications, graphical or tabular information, or other non-speech information." Col. 2, lines 26-32. Thus, Di Cristo teaches the entire Claim limitation.]

converting the non-textual input to text including the at least one numerical value. [Di Cristo, see the passage cited above. The context that is identified is used to identify the pertinent speech recognizer which recognizes speech into text. Thus the recognized text would include the "at least one numerical value."]

Gurram and Di Cristo pertain to multi-modal input including speech and non-speech components and it would have been obvious to combine the method of Di Cristo that specifically mentions numeric context with the method of Gurram that does not specify numeric contexts to arrive at a finer classification of context by combining prior art elements according to known methods to yield predictable results. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396

Regarding **Claim 2, Gurram** teaches:

... claim 1, further comprising

submitting the text to the source. [Gurram, Figures 10-12, "receive user inputs 1105" and "store document object model in remote or local repository 1107." "page associations and metadata are updated and stored on remote or local system 1208." "[0064] FIG. 12 is an example At 1201, the system retrieves a page and presents the page to a user with a plurality of inputs. Among other things, the page may include a "product code" field for entering the digits of a product code to retrieve information about a particular product. ... At 1203, the user enters the data by providing the product code digit-by-digit as a voice input or writing digits in pop up stylus entry field. The voice or stylus input may be automatically translated into a text entry by a recognizer and entered into field At 1204, a user exits by tapping an "exit" button or speaking "exit." At 1208, the page associations and metadata are updated and stored on remote or local system. At 1209, another user accesses page and associated information."]

Figure 10, "[0060] FIG. 10 illustrates a network based implementation of the present

invention. ... Client computer system 1001 may be coupled to other applications ("Services" 1050) or a server 1030 over a network 1020 (e.g., the Internet or an Intranet), which may allow communication with other clients 1040, for example.”]

Regarding **Claim 3, Gurram** teaches:

... claim 1, further comprising

determining if the content is configured to support multi-mode input.

[Gurram, Figure 11, the steps of “parse document object model 1102,” and “extract metadata 1103” and “apply metadata and associations 1104” determine what type of input is expected/appropriate to be received from the user. “[0063] ... At 1102, the DOM is parsed. At 1103, metadata and associations embedded in the DOM are extracted and loaded into the multimodal software layer. Associations may be stored as an association model for defining the association between voice and stylus inputs with particular objects in a display, for example. At 1104, the metadata and associations are applied to the objects in the DOM and the components of the multimodal software, and the page is displayed to the user....”]

Regarding **Claim 4, Gurram** teaches:

... claim 3, **wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.** [Gurram, Figure 11, the steps of “parse document object model 1102,” and “extract metadata 1103” and “apply metadata and associations 1104.”]

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“[0061] A variety of parameters may be stored as metadata in repository 1019. In one embodiment, a web browser may receive a page, for example, and metadata may be associated with particular display objects. The metadata may define the relationships between the objects in the page and associated grammars to enable voice commands and modes. The metadata may be customized for each page depending on the number and types of display objects included in the page. For example, fields may have associated metadata that define grammars corresponding to voice commands for selecting the fields and corresponding to the voice modes associated with the fields. The grammars included in each page for each object may be used to constrain the voice inputs and improve recognition accuracy, for example. Voice metadata may be associated with older legacy systems so that such pages can become enabled for multimode functionality described herein. Similarly, the metadata may define the associations between the objects and annotations or the authentication parameters, for example.”]

Regarding **Claim 7, Gurram** teaches:

... claim 1, wherein the **context indicates which of a plurality of input devices is to be used to capture the non-textual input**. [Gurram, see paragraph 50 provided above. For example, if the content being shown to the user on the mobile device is a form to be filled, depending on the part/field of the form that needs the input, a different input device is required. Voice annotation, activates the microphone and saves the input voice as voice. Other parts of the form, may recognize the voice input and input it

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as text because the field of entry required text, i.e. the "context" indicated text and not voice. See also "[0053] FIG. 3 illustrates a method 300 of processing user inputs by associating voice modes and stylus modes with display objects according to one embodiment of the present invention. At 301, one or more display objects are displayed to a user. As mentioned above, display objects may include a page, sections of a page, images, or fields of a page (e.g., text entry fields or links). Voice commands, such as navigation commands, may be associated with different objects in the display as illustrated at 302...." "[0054] FIG. 4 illustrates a method 400 of processing voice or stylus inputs according to one embodiment of the present invention. At 401, a user is prompted for a plurality of inputs. For example, a page may be displayed to a user, and the page may include multiple text entry input fields, selectable links or images, or a variety of other potential inputs. At 402, the system receives a command specifying one of the inputs. In one embodiment, a user may tap the stylus on an object to select the object (e.g., tapping a "Name" input field). Alternatively, a user may speak a voice command to select a particular object (e.g., speaking the word "name"). At 403, the system activates a voice and touch screen input mode associated with the specified input. For example, if the input is an "Attach Notes" field, the system may activate the voice annotation mode and the stylus text entry mode, and generate a pop up notepad for a user to enter voice inputs or stylus script notes or diagrams using the stylus to be stored as notes...."]

Claim 13 is a method claim with steps corresponding to limitations of Claims 1 and 2 and is rejected under similar rationale.

13. A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving the content from a source; [Gurram, Figure 1, “program display 110”, Figure 3, “Display one or more objects to a user 301.” Figure 12, “receive document object model 1101.”]

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input; [Gurram, Figure 5, and paragraph [0055] as an example of the different fields that are displayed to the user and receive various types of input. Figure 3, “[0053] ... At 301, one or more display objects are displayed to a user. As mentioned above, display objects may include a page, sections of a page, images, or fields of a page (e.g., text entry fields or links)....”]

determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;

receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device; [Gurram, Figure 5, “command, voice mode, stylus mode 511, 513, 515, 523, 525.” Voice mode is the non-textual model. Figure 3, “receive voice or stylus inputs 307.” Figure 1, “microphone 101.”]

converting the non-textual input to text including at least one numerical value; and [Gurram, Figure 6, “[0056] ... voice entries may be recognized and translated into text messages”]

submitting the text to the source. [Gurram, Figures 10-12, “receive user inputs 1105” and “store document object model in remote or local repository 1107.” “page associations and metadata are updated and stored on remote or local system 1208.”]

Gurram includes contexts that may and usually do include numbers but Gurram does not require contexts that in turn require a numerical portion.

Cristo teaches:

determining a context associated with the text input, the context indicating that the text input requires at least one numerical value; [Di Cristo, “... The knowledge-enhanced speech recognition may access a set of expected contexts that are stored in a context stack to determine a most likely context. The knowledge-enhanced speech recognition may use context specific matchers that are able to identify context such as time, location, numbers, dates, categories (e.g., music, movies, television, addresses, etc.) and other context. The results of any match may be used to generate a command and/or request that is communicated to agents 106 for additional processing.” Col. 13, line 60 to Col. 14, line 20. Contexts such as time and numbers and dates must include “at least one numerical value” of the Claim.]

receiving non-textual input for interacting with the content; and [Di Cristo identifies context in order to perform speech recognition on the received speech which is non-textual. Also, the speech is received at a non-speech interface that requires

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textual content as input. "... For example, the non-speech interface may communicate non-speech information, such as textual communications, graphical or tabular information, or other non-speech information." Col. 2, lines 26-32.]

converting the non-textual input to text including the at least one numerical value.[Di Cristo, The context includes input of numbers, date, time, and thus the recognized text would include the "at least one numerical value."]

Gurram and Di Cristo pertain to multi-modal input including speech and non-speech components and it would have been obvious to combine the method of Di Cristo that specifically mentions numeric context with the method of Gurram that does not specify numeric contexts to arrive at a finer classification of context by combining prior art elements according to known methods to yield predictable results. See MPEP 2141, KSR, 550 U.S. at ___, 82 USPQ2d at 1396

Claim 14 is a method claim with steps corresponding to limitations of Claim 3 and is rejected under similar rationale.

Claim 15 is a method claim with steps corresponding to limitations of Claim 4 and is rejected under similar rationale.

Claim 18 is a computer-readable-medium (CRM) claim with steps corresponding to limitations of Claim 1 and is rejected under similar rationale.

Claim 20 is a computer-readable-medium (CRM) claim with steps corresponding to limitations of Claim 15 and is rejected under similar rationale.

2. Claims 5 and 16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Gurram and Di Cristo in view of Bodin (U.S. 2007/0043758).

Regarding **Claim 5**, **Gurram** teaches:

... claim 3, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content, [Gurram, Figure 11, steps 1101 to 1104 where the document that is received from the server is parsed and its fields are determined. Paragraph 63: “At 1104, the metadata and associations are applied to the objects in the DOM and the components of the multimodal software, and the page is displayed to the user.”]

analyzing the at least one input field to identify a type of input, and [Gurram, Figure 11 and Figure 10: “[0062] As mentioned, client 1001 may receive multimodal enabled web pages from a server 1030 over network 1020 from server 1030. Server 1030 may store information associated with pages including information for displaying particular display objects, associations between the display objects and voice commands, voice modes, and touch screen modes, for example. The data specifying the display objects and associations between the objects and voice commands, voice modes, and touch screen modes may be defined by users of other client systems or as part of an application or service, for example, and transmitted to other clients for use.”]

determining that **a non-textual input device is available for entering the input**. [Figure 1, “[0047] FIG. 1 ... a computer system 100 may include a microphone 101 for receiving voice inputs. ... other manual input mechanisms such as a keyboard, mouse, or a touch screen display for receiving manual selection inputs (e.g., keyboard

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entries, mouse clicks, or touch screen inputs).” “[0050] Each display object may further have associated voice modes 140 and manual select modes 150 (e.g., a touch screen mode). ... A short text entry voice mode may cause the system to automatically enable a microphone and speech recognizer so that if a user provides a voice input, the voice input is translated into text (i.e., recognized) and the text may be entered into the data entry field”]

In Gurram, the various input device are taught. But Gurram does not teach that the identifying of the input fields includes identifying that a device is also available for the type of input that is identified. Di Cristo teaches that the multimodal devices register with the mobile device and receive context updates which suggests “determining that a non-textual device is available.’ Col. 2, lines 45-50. But Bodin is express in the teaching.

Bodin teaches:

determining that a non-textual input device is available for entering the input. [Bodin, [0045] OSGi also provides a set of standard services called the Device Access Specification. The Device Access Specification ("DAS") provides services to identify a device connected to the services gateway, search for a driver for that device, and install the driver for the device.”]

Gurram, Di Cristo and Bodin pertain to multimodal input including speech recognition and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device and drive identification and detection of Bodin (which is well known in the art) with the system of Gurram/Di Cristo to provide for the

situation where the mobile device may not have all of the input devices and drivers for the various input modes and the presence of the device needs to be verified. This is use of a known technique to improve similar devices, methods, or products in the same way. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Claim 16 is a method claim with steps corresponding to limitations of Claim 5 and is rejected under similar rationale.

3. Claims 8-12, 17, and 19 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Gurram and Di Cristo in view of Aizenbud-Reshef (U.S. 2009/0144056).

Regarding **Claim 8**, Gurram and Di Cristo do not discuss filtering/pre-selection/correction of the ASR or OCR results.

Aizenbud-Reshef teaches:

... claim 1, further comprising **filtering the non-textual input based, at least partially, upon the context**. [Aizenbud-Reshef, "A method for providing recognition error correction information, the method includes: obtaining metadata associated with a capture of a media item; and generating recognition error correction information in response to the metadata. The recognition error correction information is to be used in a recognition process selected out of a list consisting of an automatic speech recognition process and an optical characters recognition process." Abstract. The "metadata associated with a capture of a media item" teaches the "context" of the Claim. See paragraphs 16 and 17 of the reference for the explanation that the location and subject of the "speech" or "image" that are being recognized determine the metadata. Location

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and domain of the input voice or image are other types of context. Also, the “error correction information” of Aizenbud-Reshef is the “filtering” of the Claim as evidenced in paragraphs 16 and 17 that describe how the words of a recognizer are selected based on the location and subject of the input.]

Gurram, Di Cristo and Aizenbud-Reshef pertain to multimodal input including speech and character recognition and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the context-based filtering/selection/“recognition error correction information” of Aizenbud-Reshef with the ASR/OCR method of Gurram/Di Cristo to provide for more accurate recognition results. Use of the location or domain of speech to select the appropriate dictionary for ASR is well-known and practiced in the art. This is use of a known technique to improve similar devices, methods, or products in the same way. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Regarding **Claim 9**, **Gurram** teaches:

... claim 8,

wherein the input device comprises a microphone for capturing audio, and [Gurram, Figure 1, “[0047] ... For example, a user may interact with objects in a program display 110 by issuing voice inputs through a microphone 101 coupled to the computer system 100....”]

wherein converting the input to text comprises using a speech-to-text converter to generate the text based upon the audio. [Gurram, “[0050] Each display

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object may further have associated voice modes 140 and manual select modes 150 (e.g., a touch screen mode). For example, a data entry field may be associated with a "short text entry" voice mode. A short text entry voice mode may cause the system to automatically enable a microphone and speech recognizer so that if a user provides a voice input, the voice input is translated into text (i.e., recognized) and the text may be entered into the data entry field...."]

Regarding **Claim 10**, Gurram and Di Cristo do not teach the filtering/correcting/selecting of the recognition results according to context.

Aizenbud-Reshef teaches:

... claim 9, wherein **filtering the non-textual input comprises modifying a vocabulary associated with the speech-to-text converter**. [Aizenbud-Reshef "[0050] Stage 216 is followed by stage 218 of correcting errors in pre-corrected information to correct errors. It is noted that the correction can include selecting between words in a dictionary or a lexicon based upon recognition error correction information. For example, if an automatic speech recognition entity has to select between "screen" and "spline" (both are in the vocabulary) and the speech signals were captured in the context of "buying a computer", it is more probable that the right transcription is "screen"." See paragraph 16 for an example of filtering/selecting in the context of OCR. (Compare with the example cited in the Specification of the instant Application.)]

Refer to rationale provided for Claim 8 which provides why Gurram/Di Cristo may be modified by or combined with Aizenbud-Reshef.

Regarding **Claim 11**, **Gurram** teaches:

... claim 8,

wherein the input device comprises a camera for capturing an image, and

wherein converting the input to text comprises using an optical character recognition process to generate the text based upon the image. [Gurram, applies OCR to the entries by the stylus. “[0051] ... Software 210 may generate such metadata based on user inputs, or it may use metadata generated by other users, or both. Metadata 215 may also be used for specifying recognition parameters, such as grammars that define voice commands and/or voice mode inputs or text recognition parameters if a stylus script recognizer is used....” “[0058] ... For instance, a user may write the name "John Smith" using a stylus in field 820, and the system may enter the written stylus script into a recognizer and translate the script into text.”]]

Gurram and Di Cristo do not have a camera.

Aizenbud-Reshef teaches:

wherein the input device comprises a camera for capturing an image, and [Aizenbud-Reshef, “[0002] It is desired to extract textual information from images or from speech signal sequences captured by various capture devices such as mobile phones equipped with a camera and/or a recorder.” Figure 5, “Capture device 130.”]

wherein converting the input to text comprises using an optical character recognition process to generate the text based upon the image. [Aizenbud-

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Reshef, “[0016] Conveniently, dictionaries for OCR correction ...for correcting errors of the OCR process”]

Gurram, Di Cristo and Aizenbud-Reshef pertain to multimodal input including speech and character recognition and it would have been obvious to one of ordinary skill in the art at the time of the invention to add the camera of Aizenbud-Reshef with the input devices of method of Gurram/Di Cristo to provide for input of data via capture of an image by a camera in addition to a stylus. Gurram already includes OCR and adding a camera would be a reasonable improvement. This is use of a known technique to improve similar devices, methods, or products in the same way. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Regarding **Claim 12**, Gurram and Di Cristo do not teach the correction/filtering/selection of the more appropriate recognition model based on context.

Aizenbud-Reshef teaches:

... claim 11, wherein **filtering the non-textual input comprises modifying a vocabulary associated with the optical character generation process**. [Aizenbud-Reshef, “[0016] Conveniently, dictionaries for OCR correction are compiled based on media item metadata and personal user information. For example, if the media item capture location (included in the metadata) indicates that the image was captured at a conference site, and if the user's calendar indicates that the user was expected to attend a certain lecture at the media item capture time then the recognition error

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correction information (such as a dictionary) that is used for correcting errors of the OCR process can include words related to the lecture and, additionally or alternatively, to the conference.”]

Refer to rationale provided for Claim 8 which provides why Gurram/Di Cristo may be modified by or combined with Aizenbud-Reshef.

Claim 17 is a method claim with steps corresponding to limitations of Claim 8 and is rejected under similar rationale.

Claim 19 is a computer-readable-medium (CRM) claim with steps corresponding to limitations of Claim 8 and is rejected under similar rationale.

4. Claim 21 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Gurram and Di Cristo in view of Basson (U.S. 2005/0251746).

Regarding **Claim 21**, Gurram and Di Cristo do not teach gleaning information from a map as the non-textual input.

Basson teaches:

... claim 1, **wherein**

receiving the non-textual input comprises receiving map information from a map interface or mapping application, [Basson, Figure 8, The “map” that is displayed in Figure 8 is “receiving map information” of the Claim. This reference goes further in terms of “receiving/providing” non-textual information that pertains to a map: “[0048] In a further exemplification the user can simultaneously point to two locations on a screen

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displayed map, wait for confirmation, such as a fading circle, and then enter a question or query, such as "What is the fastest route" or "what is the most direct route" or "how can I go from A to B via C?" See also stretching the map in paragraph [0077].]

the map information including information associated with the at least one numerical value. [Basson, Figure 8, the map that is shown include the numbers associated with the highways and roads.]

Gurram, Di Cristo and Basson pertain to multimodal input and it would have been obvious to one of ordinary skill in the art at the time of the invention to add the map disambiguation of Basson with the method of Gurram/Di Cristo to explicitly provide for map information as one type of non-textual input. (Di Cristo teaches "map, location and direction applications" as application for its method and system. Col. 8, line 65.) This is combining prior art elements according to known methods to yield predictable results. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Conclusion

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

The concept of "context" appears in the Specification of the instant Application as follows:

[0034] If the application 106 determines, in operation 204, that multi-mode input is supported, the method 200 proceeds to operation 206. At operation 206, the application 106 determines a context associated with the content 110 and/or the client device 102. As mentioned above, the context associated with the content 110 and/or the client device 102 can be used to determine which, if any, of the input devices 108 to activate and/or what types of information should be captured via the input devices 108. Additionally, or alternatively, the context associated with the

content 110 and/or the client device 102 can be used to filter input 116 obtained via the input devices 108, as noted above. As noted above, the context can include a location associated with the client device 102, keywords or tags associated with or included in the content 110, names of variables or values associated with form elements in the content 110, combinations thereof, and the like.

...

[0038] From operation 212, the method 200 proceeds to operation 214, wherein the application 106 converts the filtered input 116 to text 118. As noted herein, the input 116 can be converted from audio to text, from an image to text, from a click on a map or other similar interface to coordinates, ZIP codes, location coordinates, combinations thereof, and the like. In one illustrative example, the input 116 can include sound input captured via a microphone of a client device 102, wherein the microphone captured a word pronounced like the word "one." As is known, this word can correspond at least to the words "won" and "one," and the numeral "1." According to various implementations of the concepts and technologies disclosed herein, the contextual information determined in operation 210 is used to determine which word or number is likely intended. For example, if the field into which this word is entered corresponds to a field for collecting data indicating a ZIP code, the application 106 can determine that the user intended to enter the numeral "1," and therefore can filter the input to reflect this expected intention. It should be understood that this embodiment is illustrative, and should not be construed as being limiting in any way.

Another **Bodin (U.S. 2007/0168191)** teaches: "[0151] The method of FIG. 13 also includes setting (318) audio operation of a data management and data rendering module to the selected predetermined audio configuration (316). Setting (318) audio operation of a data management and data rendering module to the selected predetermined audio configuration (306) typically includes identifying audio input devices and audio output devices specified by the predetermined audio configuration,

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activating those audio input and output devices, deactivating other audio input and output devices, and administering the attribute values of the activated audio input and audio output according to the predefined audio configuration.”

See also **Horvitz (U.S. 2007/0136222)** for the role of “user context.”

For further examples of domain/subject/genre-specific speech recognition that can recognize telephone numbers, see **Damiba (U.S. 2002/0169604)**, **Coifman (U.S. 7,805,299)**, **Geppert (U.S. 7,343,288)**, **Anastasakos (U.S. 7,97,331)**, **Douros (U.S. 7,269,563)**.

See **Andrel (U.S. 8,213,917)** for multi-modal input including pointing to a location on a map as non-textual input.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARIBA SIRJANI whose telephone number is (571)270-1499. The examiner can normally be reached on Monday through Thursday 9am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre-Louis Desir can be reached on 571-272-7799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/FARIBA SIRJANI/
Examiner, Art Unit 2659

/PIERRE-LOUIS DESIR/
Supervisory Patent Examiner, Art Unit 2659

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*	B	US-6,018,736 A	01-2000	Gilai et al.	1/1
*	C	US-6,154,526 A	11-2000	Dahlke et al.	379/88.03
*	D	US-2002/0169604 A1	11-2002	Damiba et al.	704/231
*	E	US-6,501,833 B2	12-2002	Phillips et al.	379/88.07
*	F	US-2003/0055651 A1	03-2003	Pfeiffer et al.	704/270.1
*	G	US-2003/0125948 A1	07-2003	Lyudoviyk, Yevgeniy	704/257
*	H	US-2005/0149337 A1	07-2005	Asadi et al.	704/277
*	I	US-2005/0251746 A1	11-2005	Basson et al.	715/708
*	J	US-2007/0043758 A1	02-2007	Bodin et al.	707/102
*	K	US-7,197,331 B2	03-2007	Anastasakos et al.	455/557
*	L	US-2007/0168191 A1	07-2007	Bodin et al.	704/257
*	M	US-7,269,563 B2	09-2007	Douros, Kenneth	704/275

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
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	S					
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NON-PATENT DOCUMENTS

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	W	
	X	

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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
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*	B	US-7,415,409 B2	08-2008	Simoneau et al.	704/243
*	C	US-2008/0255843 A1	10-2008	Sun et al.	704/250
*	D	US-2008/0316888 A1	12-2008	Reifman, Eli	369/69
*	E	US-7,640,160 B2	12-2009	Di Cristo et al.	704/257
*	F	US-2010/0105364 A1	04-2010	YANG, Seung-Jin	455/414.1
*	G	US-7,805,299 B2	09-2010	Coifman, Robert E.	704/235
*	H	US-7,869,998 B1	01-2011	Di Fabrizio et al.	704/251
*	I	US-8,213,917 B2	07-2012	Anderl, Ewald C.	455/414.4
*	J	US-8,332,224 B2	12-2012	Di Cristo et al.	704/257
*	K	US-8,428,654 B2	04-2013	Oh et al.	455/563
*	L	US-8,543,394 B2	09-2013	Shin, Jong-Ho	704/235
*	M	US-8,571,866 B2	10-2013	Melamed et al.	704/244

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U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-8,635,068 B2	01-2014	Pulz et al.	704/257
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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

☐ Claims renumbered in the same order as presented by applicant				☐ CPA		☐ T.D.		☐ R.1.47	
CLAIM		DATE							
Final	Original	04/15/2014	08/26/2014						
	1	✓	✓						
	2	✓	✓						
	3	✓	✓						
	4	✓	✓						
	5	✓	✓						
	6	✓	-						
	7	✓	✓						
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	20	✓	✓						
	21		✓						

Search Notes 	Application/Control No. 13109023	Applicant(s)/Patent Under Reexamination VARTHAKAVI ET AL.
	Examiner FARIBA SIRJANI	Art Unit 2659

CPC- SEARCHED		
Symbol	Date	Examiner
(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	7/15/2014	fs

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
704	235	7/15/2014	fs

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor search and keyword search of EAST. Search advic from P.D. Shah.e	4/15/2014	fs
Refresh inventor search and conduct keyword search of EAST.	8/28/2014	fs

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/FARIBA SIRJANI/ Examiner.Art Unit 2659	
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S22	535	"I3" and (OCR (optical near2 character))	US-PGPUB; USPAT; DERWENT	OR	ON	2014/04/17 08:07

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	48	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/08/28 10:20
L2	18	l1 and map	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/28 10:21
S1	2108	704/235.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 12:57
S2	8078	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 12:58
S3	1	"20120296644".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:29
S4	60	koll.in. near detlef	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:29
S5	1	"20120296646".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:37
S6	2	varthakavi.in. near mohan	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:39
S7	4	nanduri.in. near jayaram	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:39
S8	91	kothari.in. near nikhil	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:40
S9	95	S6 S7 S8	US-PGPUB;	OR	ON	2014/04/15 13:40

			USPAT; UPAD			
S10	1	S6 and S7 and S8	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:40
S11	1	S9 and "704".clas.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:42
S12	0	S9 and S2	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:42
S13	7	("20070266087" "20080118162" "20090285444" "20090315740" "7610547" "7644649" "7787693").PN.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 07:13
S14	873	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr)	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:08
S15	0	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"05172011"	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:09
S16	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:10
S17	1	"20070124507".pn.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:15
S18	1	S16 and S17	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:17
S19	19	("2007/0124507").URPN.	USPAT	OR	ON	2014/04/16 15:18
S20	49	("20010018653" "20020107696" "20040049388" "20040073431" "20040230637" "20040243415" "20050102146" "20050251746" "20060206340" "20060247925" "20070124507" "20080134102" "20080162143" "20100066684" "20100105364" "20110074693" "20110097693" "20110282664" "20120215531" "20120216134" "20120260176" "20120260177" "4596031" "4726065" "5335276" "5600765" "5749072" "5970452" "6069648" "6167374" "6321197" "6396477" "6421672" "6539350" "6559830" "6804653" "6813603" "6915258" "7023498" "7177814" "7287018" "7292986" "7610199" "7904296"	US- PGPUB; USPAT	OR	ON	2014/04/16 15:26

		"8185392" "8195319" "8224656" "8255218" "8326636").PN. OR ("8543397").URPN.				
S21	27	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517" and (ocr (optical near2 recogni\$4))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 16:04
S23	1	"8355915".pn.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:01
S24	20	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	ON	2014/04/17 08:06
S25	20	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	ON	2014/04/17 08:07
S26	36790	l3and (OCR (optical near2 character))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:07
S27	7	S25 and (OCR (optical near2 character))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:08
S28	20	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	ON	2014/04/17 13:10
S29	1	S28 and (OCR (optical near2 character)) and (device near2 (identif\$4 detect\$5))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:10
S30	2	S28 and (input near device near2 (identif\$4 detect\$5))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:12
S31	3	S28 and (device near2 (identif\$4 detect\$5))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:13
S32	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:18
S33	158	S32 and (device near2 (identif\$4 detect\$5))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:18
S34	94	S32 and ((identif\$4 detect\$5) adj2 device) and (device near2 input)	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:21
S35	6	S32 and ((identif\$4 detect\$5) adj2 "input device")	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:45

S36	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:19
S37	552	S36 and (context)	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:19
S38	156	S36 and (context near7 (content display gui form))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:20
S39	5763	(context location locale city town) near7 (((speech voice utterance) near3 (recogni\$4)) (asr))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S40	5571	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S41	2918	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr)) and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S42	8094	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746) .cpc.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S43	1011	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S44	1515	(context location locale city town) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S45	1397	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S46	32	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42 and (context location) with (((character near2 (recogni\$4)) (ocr))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S47	6	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42 and (context location) with (((character near2 (recogni\$4)) (ocr)) and camera	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:38
S48	2	varthakavi.in. near mohan	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46
S49	4	nanduri.in. near jayaram	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46
S50	91	kothari.in. near nikhil	US-PGPUB;	OR	ON	2014/08/26 07:46

			USPAT; UPAD			
S51	95	S48 S49 S50	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/26 07:46
S52	26	"Term Removed" or "Term Removed"	US- PGPUB; USPAT	OR	ON	2014/08/27 12:42
S53	21	S52 and context	US- PGPUB; USPAT	OR	ON	2014/08/27 12:42
S54	17	S52 and context and (number numerical)	US- PGPUB; USPAT	OR	ON	2014/08/27 12:42
S55	13	S52 and context and address	US- PGPUB; USPAT	OR	ON	2014/08/27 12:49
S56	36977	((context location domain subject) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation))	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:25
S57	591	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation))	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:26
S58	374	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip)	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:26
S59	0	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip) and @ad<="05172011"	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:27
S60	301	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip) and @ay<"2011"	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:27
S61	192	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip) and @ay<"2011" and "704".clas.	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 13:28
S62	198	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS address zip\$1code ((phone telephone) near (number))) and @ay<"2011" and "704".clas.	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 16:09
S63	112	((context location domain subject) near(specific related)) near7 (((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (GPS zip\$1code ((phone telephone) near (number))) and @ay<"2011" and "704".clas.	US- PGPUB; USPAT; UPAD	OR	ON	2014/08/27 16:10
S64	3862	(((speech voice utterance) near2 (recogni\$4))	US-	OR	ON	2014/08/27

		(asr) (STT) (transcription) (dictation)) and ((phone telephone) near (number))) and @ay<"2011" and "704".clas.	PGPUB; USPAT; UPAD			17:18
S65	431	((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near3 recogni\$5) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:19
S66	311	((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near2 recogni\$5) and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:19
S67	129	((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near2 recogni\$5).ti,ab,bsum,clm. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:19
S68	66	((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near recogni\$5).ti,ab,bsum,clm. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:23
S69	55	((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (((phone telephone) near (number)) near recogni\$5).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:23
S70	0	((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (zip\$1code near recogni\$5).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:42
S71	0	((speech voice utterance) near2 (recogni\$4)) (asr) (STT) (transcription) (dictation)) and (zip\$1code near3 recogni\$5).ti,ab,bsum. and @ay<"2011" and "704".clas.	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:42
S72	48	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/08/27 17:42
S73	19	S62 and ((zip near code) (zipcode))	US-PGPUB; USPAT; UPAD	OR	ON	2014/08/27 17:43

8/ 28/ 2014 10:48:24 AM

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Varthakavi et al.	Examiner:	Fariba Siriani
Application No.:	13/109,023	Group Art Unit:	2659
Filed:	May 17, 2011	Docket No.:	331991.01
Title:	Multi-Mode Text Input		

AMENDMENT AND RESPONSE

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

Dear Commissioner:

Responsive to the Office Action mailed on May 8, 2014, the Applicants request further examination in light of the following amendments and remarks, which are believed to place the application in condition for allowance.

Amendments to the Claims are reflected in the listing of claims, which begins on page **2** of this paper.

Remarks begin on page **6** of this paper.

Amendments to the Claims

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

1. (Currently Amended) A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving, at a computer, the content from a source;
identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;
determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;
receiving non-textual input for interacting with the content; and
converting the non-textual input to text including the at least one numerical value.

2. (Original) The method of claim 1, further comprising submitting the text to the source.

3. (Original) The method of claim 1, further comprising determining if the content is configured to support multi-mode input.

4. (Original) The method of claim 3, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

5. (Original) The method of claim 3, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content,
analyzing the at least one input field to identify a type of input, and
determining that a non-textual input device is available for entering the input.

6. (Cancelled)

7. (Currently Amended) The method of claim [[6]]1, wherein the context indicates which of a plurality of input devices is to be used to capture the non-textual input.

8. (Currently Amended) The method of claim [[6]]1, further comprising filtering the non-textual input based, at least partially, upon the context.

9. (Original) The method of claim 8, wherein the input device comprises a microphone for capturing audio, and wherein converting the input to text comprises using a speech-to-text converter to generate the text based upon the audio.

10. (Original) The method of claim 9, wherein filtering the non-textual input comprises modifying a vocabulary associated with the speech-to-text converter.

11. (Original) The method of claim 8, wherein the input device comprises a camera for capturing an image, and wherein converting the input to text comprises using an optical character recognition process to generate the text based upon the image.

12. (Original) The method of claim 11, wherein filtering the non-textual input comprises modifying a vocabulary associated with the optical character generation process.

13. (Currently Amended) A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

- receiving the content from a source;
- identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;
- determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;
- receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device;
- converting the non-textual input to text including the at least one numerical value; and
- submitting the text to the source.

14. (Original) The method of claim 13, further comprising determining if the content is configured to support multi-mode input.

15. (Original) The method of claim 13, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

16. (Original) The method of claim 13, wherein identifying the at least one input indicator comprises

- identifying at least one input field in the content,
- analyzing the at least one input field to identify a type of input, and
- determining that a non-textual input device is available for entering the input.

17. (Currently Amended) The method of claim 13, further comprising:

- ~~determining a context associated with the content, the context indicating which of a plurality of input devices is to be used to capture the non-textual input; and~~
- filtering the non-textual input based, at least partially, upon the context.

18. (Currently Amended) A computer storage medium having computer readable instructions stored thereupon that, when executed by a computer, cause the computer to:

receive content from a source;

identify at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;

~~determining a context associated with the text input, the context indicating that the text input requires at least one numerical value;~~

determine that the content is configured to support interactions via multi-mode input;

receive the multi-mode input for interacting with the content, the multi-mode input being received via one or more input devices associated with a client device;

convert the multi-mode input to text ~~including the at least one numerical value;~~ and

submit the text to the source.

19. (Currently Amended) The computer storage medium of claim 18, further comprising computer readable instructions that, when executed by a computer, cause the computer to:

~~determine a context associated with the content, the context indicating which of a plurality of input devices is to be used to capture the non-textual input; and~~

filter the non-textual input based, at least partially, upon the context.

20. (Original) The computer storage medium of claim 18, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

21. (New) The method of claim 1, wherein receiving the non-textual input comprises receiving map information from a map interface or mapping application, the map information including information associated with the at least one numerical value.

Remarks/Arguments

Claims 1-20 are pending in this application. In the Office Action mailed on May 8, 2014 (hereinafter “the Office Action”), claims 1-6, and 8 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claims 1-4, 6-7, 13-15, 18, and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Publication No. 2007/0124507 to Gurram (hereinafter “*Gurram*”). Claims 5 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gurram* in view of U.S. Publication No. 2007/0043758 to Bodin (hereinafter “*Bodin*”). Claims 8-12, 17, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gurram* in view of U.S. Publication No. 2009/0144056 to Aizenbud-Reshef (hereinafter “*Aizenbud-Reshef*”).

By this amendment, claim 6 has been cancelled and new claim 21 has been added. Claims 1, 7-8, 13, and 17-19 have also been amended. Full support and antecedent basis for these amendments may be found in, at least, the originally filed specification at paras. [0006], [0023]-[0024], and [0038]. Accordingly, no new matter has been introduced by this amendment. Following entry of this amendment, claims 1-5 and 7-21 will be pending in the present application. For at least the reasons set forth below, the Applicants respectfully request reconsideration and immediate allowance of this application.

Rejections Under 35 U.S.C. § 101

Claims 1-6 and 8 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Particularly, the Office Action alleges that claims 1-6 and 8 do not positively recite a connection to a machine. Without conceding to the propriety of these rejections, claim 1 has been amended to recite a positive connection to “a computer.” Accordingly, claim 1 is directed to statutory subject matter. Claims 2-6 and 8, being dependent upon claim 1, are therefore also directed to statutory subject matter. Reconsideration and withdrawal of the rejections of claims 1-6 and 8 under 35 U.S.C. § 101 is respectfully requested.

Rejections Under 35 U.S.C. § 102(b)

The Office Action rejected claims 1-4, 6-7, 13-15, 18, and 20 under 35 U.S.C. § 102(b) as being anticipated by *Gurram*. *Gurram*, however, does not teach, suggest, or describe each and

every element of these claims. At least some of the reasons why *Gurram*, nor the other cited references, do not teach or suggest each and every element of claims 1-4, 6-7, 13-15, 18, and 20 are set forth below.

Independent Claim 1

Amended claim 1 presently recites, in part, “determining a context associated with the text input, the context indicating that the text input requires at least one numerical value,” “receiving non-textual input for interacting with the content,” and “converting the non-textual input to text including the at least one numerical value.” It is submitted that neither *Gurram*, nor the additionally cited references, teach or suggest these features.

Gurram is directed to processing annotations and multi-modal user inputs. (*Gurram*, Abstract). *Gurram* discloses that display objects 120 may be populated with text based on voice input 211. (*Gurram*, FIG. 1, FIG. 5). *Gurram* also discloses generating text messages from voice entries based on a form of recognition. (*Gurram*, para. [0050]). However, *Gurram* lacks any determination as to a context of a text input.

For example, *Gurram* clearly illustrates and describes several instances where voice dictation and/or free-form dictation is used to fill a display object. (*Gurram*, FIGS. 6-8, para. [0050]). However, in each of these instances, *Gurram* fails to ascertain context, let alone any context associated with the display object. Accordingly, *Gurram* fails to disclose or suggest “determining a context associated with the text input,” as recited in claim 1. Furthermore, as *Gurram* fails to describe any form of context as encompassed by claim 1, *Gurram* clearly cannot disclose any “context indicating that the text input requires at least one numerical value,” as also recited in claim 1. Moreover, as *Gurram* lacks any description of context or a numerical value as encompassed by claim 1, *Gurram* cannot anticipate “converting the non-textual input to text including the at least one numerical value,” as further recited in claim 1.

As such, *Gurram* does not disclose each and every feature of independent claim 1. Therefore, claim 1 is allowable over *Gurram* for at least these reasons. Reconsideration and withdrawal of this rejection is respectfully requested.

Independent Claims 13 and 18

Amended independent claims 13 and 18 include recitations that are not taught or suggested by *Gurram*. Claim 13 sets forth “determining a context associated with the text input, the context indicating that the text input requires at least one numerical value,” “receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device,” and “converting the non-textual input to text including the at least one numerical value.” As discussed in detail above with reference to claim 1, *Gurram* fails to suggest such features. *Gurram* is merely directed to voice dictation or free-form dictation for generating text absent any context or determination of the same. (*Gurram*, FIGS. 6-8). Accordingly, *Gurram* fails to disclose each and every feature of claim 13. Therefore, claim 13 is allowable over *Gurram*. Claim 18 is allowable for at least similar reasons to those presented above with regard to claims 1 and 13. Reconsideration and withdrawal of these rejections are respectfully requested.

Dependent Claims 2-4, 7, 14-15, and 20

Dependent claims 2-4, 7, 14-15, and 20 depend from an allowable claim and, therefore, are allowable over *Gurram*. Claims 2-4, 7, 14-15, and 20 also include recitations that are not taught, suggested, or described in *Gurram*. Accordingly, *Gurram* does not teach or suggest each and every recitation of these claims, and dependent claims 2-4, 7, 14-15, and 20 are therefore also in condition for immediate allowance.

Rejections Under 35 U.S.C. § 103(a)

Claims 5 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gurram* in view of *Bodin*. Claims 8-12, 17, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gurram* in view of *Aizenbud-Reshef*. Applicants respectfully traverse these rejections.

As set forth above, independent claims 1, 13, and 18 each include features that are not taught or suggested by *Gurram*. Furthermore, *Bodin* and *Aizenbud-Reshef* do not cure these deficiencies. As to *Bodin*, *Bodin* is directed to synthesizing aggregate data of disparate data types into data of a uniform data type. (*Bodin*, Abstract). *Bodin* is relied upon for disclosure of identification of available input devices (Office Action, p. 16), and is generally unrelated to

context or numerical values as encompassed by claim 1. Furthermore, *Aizenbud-Reshef* is directed to recognition error correction. (*Aizenbud-Reshef*, Abstract). *Aizenbud-Reshef* discloses only manipulation of a dictionary for error-correction based on metadata associated with media capture. (*Aizenbud-Reshef*, FIGS. 2-4, paras. [0016-0017]). The disclosed metadata is unrelated to context indicating at least one numerical value, as encompassed by claim 1. Accordingly, both *Bodin* and *Aizenbud-Reshef*, even if combined in the manner suggested in the Office Action, fail to cure the deficiencies of *Gurram* described in detail above.

As such, *Gurram*, *Bodin*, and *Aizenbud-Reshef*, taken alone or in any combination, fail to disclose or suggest each and every feature of independent claim 1. Therefore, claim 1 is patentable over *Gurram*, *Bodin*, and *Aizenbud-Reshef*. Claims 5 and 8-12 are also patentable, at least by virtue of their dependency upon independent claim 1 in addition to those features set forth therein.

With regard to claims 17 and 19, independent claims 13 and 18 set forth features not disclosed or suggested by *Gurram*. For example, claim 13 recites “determining a context associated with the text input, the context indicating that the text input requires at least one numerical value,” “receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device,” and “converting the non-textual input to text including the at least one numerical value.” As discussed in detail above with reference to claim 1, *Gurram* fails to suggest such features. *Gurram* is directed to merely voice dictation or free-form dictation for generating text absent any context or determination of the same. (*Gurram*, FIGS. 6-8). *Bodin* and *Aizenbud-Reshef* are equally deficient, being relied upon for entirely unrelated features. Accordingly, each of the cited references fails to render obvious each and every feature of claim 13. Therefore, claim 13 is patentable over *Gurram*, *Bodin*, and *Aizenbud-Reshef*, taken alone or in any combination. Claim 18 is also patentable for at least similar reasons to those presented above with regard to claims 1 and 13. Claims 17 and 19 are likewise patentable, at least by virtue of their dependency upon claims 13 and 18, respectively, in addition to those features set forth therein. Reconsideration and withdrawal of these rejections are respectfully requested.

New Claim 21

Claim 21, dependent upon allowable claim 1, sets forth features that are not taught or suggested by any of the cited references. For example, claim 21 recites, in part, “receiving the non-textual input comprises receiving map information from a map interface or mapping application, the map information including information associated with the at least one numerical value.” In contrast, *Gurram*, *Bodin*, and *Aizenbud-Reshef* each lack description of receiving map information including information associated with the at least one numerical value as encompassed by claim 21. Accordingly, claim 21 is patentable over *Gurram*, *Bodin*, and *Aizenbud-Reshef*, taken alone or in any combination. Early indication of the allowability of claim 21 is earnestly solicited.

Conclusion

In view of the foregoing amendment and remarks, the Applicants respectfully submit that all of the pending claims in the present application are in condition for allowance. Reconsideration and reexamination of the application and allowance of the claims at an early date is solicited. If the Examiner has any questions or comments concerning this matter, the Examiner is invited to contact the Applicants’ undersigned attorney at the number below.

Respectfully submitted,

HOPE BALDAUFF, LLC

/Leonard J. Hope/

Date: August 8, 2014

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Electronic Acknowledgement Receipt

EFS ID:	19816356
Application Number:	13109023
International Application Number:	
Confirmation Number:	1603
Title of Invention:	MULTI-MODE TEXT INPUT
First Named Inventor/Applicant Name:	Mohan Varthakavi
Customer Number:	69316
Filer:	Leonard J. Hope/John Sweet
Filer Authorized By:	Leonard J. Hope
Attorney Docket Number:	331991.01
Receipt Date:	08-AUG-2014
Filing Date:	17-MAY-2011
Time Stamp:	14:36:29
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	Transmittal Letter	331991-01_Transmittal_Amd_8-8-14.pdf	141189 ba30a38316fcb82f2fe54ce173a3987094bc5ecc	no	1

Warnings:

Information:

Patent Owner Ex. 2100

Page 197 of 294

2		331991-01_Resp_to_OA_dtd_5-8-14.pdf	210833 546d9d7b882f9fea8aeb456bcb09ad6a8eb5170d	yes	10
	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	10	
Warnings:					
Information:					
Total Files Size (in bytes):			352022		
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

Applicant(s):	Varthakavi et al.		
Application No.:	13/109,023	Examiner:	Fariba Siriani
Filed:	May 17, 2011	Group Art Unit:	2659
Confirmation No.	1603	Docket:	331991.01
Title:	Multi-Mode Text Input		

Transmittal Form

☒ **Enclosures**

☒ Transmittal Sheet ☐ Response to: ☐ Notice of Missing Parts ☐ Notice to File Corrected Application Papers ☐ Copy of Notice to File Corrected Application Papers ☐ Declaration ☐ Newly Executed (pages) ☐ Affidavit(s) / Declaration(s) ☐ Submission of Formal Drawings ☐ Drawing(s) (sheets) ☐ Preliminary Amendment	☒ Reply / Amendment to: ☐ Restriction Requirement ☒ Non-Final Office Action ☐ Request for Continued Examination (RCE) transmittal ☐ Terminal Disclaimer ☐ Notice of Appeal ☐ Request for Pre-Appeal Brief Conference ☐ Pre-Appeal Brief ☐ Extension of Time ☐ Issue Fee PTOL-85	☐ Petition ☐ 1.47(a) Non-Signing Inventor ☐ Attachments (Exhibits) ☐ Declaration under 37 CFR 1.47(a) ☐ Petition for _____ ☐ Information Disclosure Statement with ☐ Form PTO/SB/08A (pages) ☐ Non-Patent Reference(s) ☐ Foreign Patent Reference(s) ☐ Other: ☐ _____ ☐ _____ ☐ _____
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☐ **Fees**

Claims Remaining After Amendment	Total Claims		Highest Number Previously Paid For		Present Extra		Rate		Fee
Total Claims		-	20	=	0	x	<u>80</u>	=	\$0.00
Independent Claims		-	3	=	0	x	<u>420</u>	=	\$0.00
MULTIPLE DEPENDENT CLAIM FEE									\$0.00
OTHER:									\$0.00
TOTAL FEE									\$0.00

Method of Payment

☐ Credit Card	☒ Deposit Account Deposit Account Number: <u>50-3634</u> Deposit Account Name: <u>HB</u> ☐ Charge fee(s) indicated above ☐ Credit any overpayments ☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17
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Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers or any future reply, if appropriate. Please charge any additional fees or credit overpayment to Deposit Account No. 50-3634.

HOPE BALDAUFF, LLC 1175 Peachtree St., N.E., Suite 2000 100 Colony Square Atlanta, Georgia 30361 (404) 815-1900	By: /Leonard J. Hope/ Name: Leonard J. Hope Reg. No.: 44,774 Date: August 8, 2014 JRS/jaa	69316 PATENT TRADEMARK OFFICE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/109,023	Filing Date 05/17/2011	☒ To be Mailed
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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), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$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	08/08/2014	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X \$80 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0	X \$420 =	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	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =
	☐ 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.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/NICHELE PETERSON/

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.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/109,023	05/17/2011	Mohan Varthakavi	331991.01	1603

69316 7590 05/08/2014
MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052

EXAMINER

SIRJANI, FARIBA

ART UNIT	PAPER NUMBER
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2659

NOTIFICATION DATE	DELIVERY MODE
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05/08/2014

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):

stevensp@microsoft.com
vfpros@microsoft.com
chriochs@microsoft.com

Office Action Summary	Application No. 13/109,023	Applicant(s) VARTHAKAVI ET AL.	
	Examiner FARIBA SIRJANI	Art Unit 2659	AIA (First Inventor to File) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/17/2011.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1-20 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) _____ is/are allowed.
- 7) ☒ Claim(s) 1-20 is/are rejected.
- 8) ☐ Claim(s) _____ is/are objected to.
- 9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

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

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 5/17/2011 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

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

Certified copies:

- a) ☐ All b) ☐ Some** c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date _____ | 4) ☐ Other: _____ |

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

DETAILED ACTION

Claims 1-20 are pending. Claims 1, 13, and 18 are independent.

This Application is published as U.S. 2012/0296646.

Independent Claim 18 is directed to a “computer storage medium having computer readable instructions” The supporting written description includes that: “[0054] For purposes the claims, the phrase "computer storage medium" and variations thereof, does not include waves, signals, and/or other transitory and/or intangible communication media, per se.” Accordingly, Claim 18 is interpreted as encompassing “a non-transitory computer storage medium” and is considered to be directed to statutory subject matter.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 1-6, 8 are rejected under 35 U.S.C. 101 because the claimed invention is not directed to patent eligible subject matter. Based upon consideration of all of the relevant factors with respect to the claim as a whole, claim(s) is/are determined to be directed to an abstract idea.

The rationale for this determination is explained below:

Independent Claim 1 is directed to a computer-implemented method. However, aside from the mention to the “computer-implemented” nature of the method in the preamble, the Claim limitations do not recite any connection to a machine.

1. A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:
[Preamble and not necessarily limiting.]

receiving the content from a source; [A person can obtain a newspaper from a newspaper stand.]

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input; [The newspaper includes a cross-words puzzle. The person identifies the empty blocks as indicating that they will take text input.]

receiving non-textual input for interacting with the content; and [The person receives the answer to the puzzle from a friend who is speaking to the person.]

converting the non-textual input to text. [The person writes down the answer that was received from the friend.]

The above steps can be done by a person without interaction with a machine. Under the current interpretation of the 35 U.S.C. 101, the Claim is directed to a so-called "abstract idea." And "abstract ideas" are considered non-statutory under the current interpretation of 35 U.S.C. 101 by the courts.

The Federal Circuit (In re Bilski, 88 USPQ2d 1385 (Fed. Cir. 2008)) has indicated that a statutory "process" under 35 U.S.C. 101 must (1) be tied to a particular machine or apparatus, or (2) transform a particular article to a different state or thing. This is referred to as the "machine or transformation test", whereby the recitation of a particular machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility (See Benson, 409 U.S. at 71-72), and the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity (See Flook, 437 U.S. at 590"). While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform an article nor are positively tied to a particular machine that accomplishes the claimed method steps.

1. The claim elements do not explicitly recite nor inherently require the use of a machine and could be performed by a human.

2. There is no transformation, because claim limitations merely change a data format and do not physically transform matter.

Based upon consideration of all of the relevant factors with respect to the claim as a whole, Claim 1 is directed to an abstract idea, and is therefore rejected as ineligible subject matter under 35 U.S.C. § 101.

Dependent claims 2-5 and 8 when analyzed as a whole are held to be ineligible subject matter and are rejected under 35 U.S.C. 101 because the additional recited limitations could also be performed manually or mentally by a human as a general disembodied concept and fail to establish that the claim is not directed to an abstract idea.

Thus, Claims 1-5, 8 are directed to a non-statutory abstract idea.

To overcome this rejection, the method Claim may be amended to directly involve a machine in at least one of the limitations such that at least one limitation may not be construed to operate without the machine.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-7, 13-15, 18, and 20 are rejected under pre-AIA 35 U.S.C. 102(b) as being anticipated by Gurram (U.S. 2007/0124507).

Note that both voice and stylus entries in Gurram are non-text entries because the stylus entry is subjected to image recognition and then converted to text.

Regarding **Claim 1, Gurram** teaches:

1. A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving the content from a source; [Gurram, Figure 1, “program display 110”, Figure 3, “Display one or more objects to a user 301.” Figures 5-9 for examples of “Application Page 501.” Figure 10 showing the “server 1030” being connected to “clients 1001 to 1040.” Figure 12, “receive document object model 1101.”]

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input; [Gurram, See

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Figure 5, and paragraph [0055] as an example of the different fields that are displayed to the user and receive various types of input. Figure 3, “[0053] ... At 301, one or more display objects are displayed to a user. As mentioned above, display objects may include a page, sections of a page, images, or fields of a page (e.g., text entry fields or links)....” Figure 11, “[0063] FIG. 11 is an example flow chart 1100 of a multimodal interaction across a network according to one embodiment of the present invention. At 1101, a system (e.g., a client) may receive a document object model ("DOM"). The DOM is logical representation of a page and the objects in a page, and typically defines a tree structure. At 1102, the DOM is parsed. At 1103, metadata and associations embedded in the DOM are extracted and loaded into the multimodal software layer. Associations may be stored as an association model for defining the association between voice and stylus inputs with particular objects in a display, for example. At 1104, the metadata and associations are applied to the objects in the DOM and the components of the multimodal software, and the page is displayed to the user. ...”]

receiving non-textual input for interacting with the content; and [Gurram, Figure 5, “command, voice mode, stylus mode 511, 513, 515, 523, 525.” Voice mode is the non-textual model. Figure 3, “receive voice or stylus inputs 307.” Figure 6. “[0056] ... In FIG. 6, a user interface page 600 (e.g., a web page) is displayed to a user with a variety of display objects, some of which may prompt a user for input. ... A "Record" button 650 prompts a user for inputs that may be associated with the page as a whole. ... A user may select the "Record" button using either voice commands (i.e., speaking the word "Record") or through a touch screen command (i.e., touching the tip of the

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stylus to the record button). When the computer receives the command specifying the "Record" button 650, the software may cause an input field 651 to appear and activate voice and touch screen inputs. ... Thus, if a user begins speaking, the system will automatically record the user's spoken comments and the comments will automatically be associated with the page for future access. As mentioned above, in some embodiments voice entries may be recognized and translated into text messages, and similarly, stylus entries may be recognized by a text recognition engine and translated into text messages.”]

converting the non-textual input to text. [Gurram, Figure 4, “process voice input signal according to voice mode 406.” Figure 6, “[0056] ... voice entries may be recognized and translated into text messages” Figure 1, “[0050] Each display object may further have associated voice modes 140 and manual select modes 150 (e.g., a touch screen mode). For example, a data entry field may be associated with a "short text entry" voice mode. A short text entry voice mode may cause the system to automatically enable a microphone and speech recognizer so that if a user provides a voice input, the voice input is translated into text (i.e., recognized) and the text may be entered into the data entry field.....” Figure 12, “[0064] ... The voice or stylus input may be automatically translated into a text entry by a recognizer and entered into field in accordance with a voice or stylus mode, such as a short text entry mode, associated with the product code field....”]

Regarding **Claim 2**, Gurram teaches:

... claim 1, further comprising

submitting the text to the source. [Gurram, Figures 10-12, “receive user inputs 1105” and “store document object model in remote or local repository 1107.” “page associations and metadata are updated and stored on remote or local system 1208.” “[0064] FIG. 12 is an example At 1201, the system retrieves a page and presents the page to a user with a plurality of inputs. Among other things, the page may include a "product code" field for entering the digits of a product code to retrieve information about a particular product. ... At 1203, the user enters the data by providing the product code digit-by-digit as a voice input or writing digits in pop up stylus entry field. The voice or stylus input may be automatically translated into a text entry by a recognizer and entered into field At 1204, a user exits by tapping an "exit" button or speaking "exit." At 1208, the page associations and metadata are updated and stored on remote or local system. At 1209, another user accesses page and associated information.”

Figure 10, “[0060] FIG. 10 illustrates a network based implementation of the present invention. ... Client computer system 1001 may be coupled to other applications ("Services" 1050) or a server 1030 over a network 1020 (e.g., the Internet or an Intranet), which may allow communication with other clients 1040, for example.”]

Regarding **Claim 3, Gurram** teaches:

... claim 1, further comprising

determining if the content is configured to support multi-mode input.

[Gurram, Figure 11, the steps of “parse document object model 1102,” and “extract

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metadata 1103” and “apply metadata and associations 1104” determine what type of input is expected/appropriate to be received from the user. “[0063] ... At 1102, the DOM is parsed. At 1103, metadata and associations embedded in the DOM are extracted and loaded into the multimodal software layer. Associations may be stored as an association model for defining the association between voice and stylus inputs with particular objects in a display, for example. At 1104, the metadata and associations are applied to the objects in the DOM and the components of the multimodal software, and the page is displayed to the user....”]

Regarding **Claim 4**, **Gurram** teaches:

... claim 3, **wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input**. [Gurram, Figure 11, the steps of “parse document object model 1102,” and “extract metadata 1103” and “apply metadata and associations 1104.” “[0061] A variety of parameters may be stored as metadata in repository 1019. In one embodiment, a web browser may receive a page, for example, and metadata may be associated with particular display objects. The metadata may define the relationships between the objects in the page and associated grammars to enable voice commands and modes. The metadata may be customized for each page depending on the number and types of display objects included in the page. For example, fields may have associated metadata that define grammars corresponding to voice commands for selecting the fields and corresponding to the voice modes associated with the fields.

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The grammars included in each page for each object may be used to constrain the voice inputs and improve recognition accuracy, for example. Voice metadata may be associated with older legacy systems so that such pages can become enabled for multimode functionality described herein. Similarly, the metadata may define the associations between the objects and annotations or the authentication parameters, for example.”]

Regarding **Claim 6, Gurram** does not mention the word “context” but does teach that the type/context of the content that is being displayed to the user, and is waiting for input from the user, determines the type of input device that is activated and the type of input that is expected:

... claim 1, further comprising **determining a context associated with the content**. [Gurram, “[0050] Each display object may further have associated voice modes 140 and manual select modes 150 (e.g., a touch screen mode). For example, a data entry field may be associated with a "short text entry" voice mode. A short text entry voice mode may cause the system to automatically enable a microphone and speech recognizer so that if a user provides a voice input, the voice input is translated into text (i.e., recognized) and the text may be entered into the data entry field. Other example voice modes that may be associated with particular display objects include a "free form dictation mode," "voice annotation mode," or "voice authorization mode," for example. Free form dictation mode may allow a user to dictate notes into longer text fields, such as a "Notes" field. Accordingly, a display object such as a "Notes" field may

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be associated with a free form dictation mode so that when such object is selected, the system automatically activates the microphone and recognizer to receive and translate a voice input into text and enter the text in the particular field. Voice annotation mode may allow a user to associate a voice input with a particular display object, such as a page as a whole, or objects in the page such as a "picture" or a "Note," for example. Accordingly, a display object such as a "Notes" field may be associated with a voice annotation mode so that when such object is selected, the system automatically activates the microphone, stores a voice input, and associates the voice input with the display object. Voice authorization mode may allow a user to associate an authorization with a display object, such as a "sales proposal web page" or a "price" field of a page. Accordingly, a display object such as a "price" field may be associated with an authorization mode so that when such object is selected, the system automatically activates the microphone, receives input speech or handwritten signature with the stylus, and performs an authorization on the received input to verify that an authorized user is associated with the object (e.g., only authorized users may be able to make changes to the price). Examples of these modes are provided below. Similarly, each object may be associated with particular manual select modes, such as "mouse clicks," "taps," or "text entry." Text entry modes may include either a stylus "ink mode" or a "text recognition mode." Ink mode may configure the stylus to receive free form writings and store the touch screen input as a script (e.g., hand writing). Text recognition mode may receive the touch screen stylus written script and input the script letter by letter or as a whole sequences into a script recognizer for translating the script into text. Since

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different input modes may be more or less useful with different types of display objects, embodiments of the present invention associate particular input modes (voice or stylus) with particular objects.”]

Regarding **Claim 7, Gurram** teaches:

... claim 6, wherein the **context indicates which of a plurality of input devices is to be used to capture the non-textual input**. [Gurram, see paragraph 50 provided above. For example, if the content being shown to the user on the mobile device is a form to be filled, depending on the part/field of the form that needs the input, a different input device is required. Voice annotation, activates the microphone and saves the input voice as voice. Other parts of the form, may recognize the voice input and input it as text because the field of entry required text, i.e. the "context" indicated text and not voice. See also “[0053] FIG. 3 illustrates a method 300 of processing user inputs by associating voice modes and stylus modes with display objects according to one embodiment of the present invention. At 301, one or more display objects are displayed to a user. As mentioned above, display objects may include a page, sections of a page, images, or fields of a page (e.g., text entry fields or links). Voice commands, such as navigation commands, may be associated with different objects in the display as illustrated at 302....” “[0054] FIG. 4 illustrates a method 400 of processing voice or stylus inputs according to one embodiment of the present invention. At 401, a user is prompted for a plurality of inputs. For example, a page may be displayed to a user, and the page may include multiple text entry input fields, selectable links or images, or a

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variety of other potential inputs. At 402, the system receives a command specifying one of the inputs. In one embodiment, a user may tap the stylus on an object to select the object (e.g., tapping a "Name" input field). Alternatively, a user may speak a voice command to select a particular object (e.g., speaking the word "name"). At 403, the system activates a voice and touch screen input mode associated with the specified input. For example, if the input is an "Attach Notes" field, the system may activate the voice annotation mode and the stylus text entry mode, and generate a pop up notepad for a user to enter voice inputs or stylus script notes or diagrams using the stylus to be stored as notes...."]

Claim 13 is a method claim with steps corresponding to limitations of Claims 1 and 2 and is rejected under similar rationale.

13. A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving the content from a source; [Gurram, Figure 1, "program display 110", Figure 3, "Display one or more objects to a user 301." Figure 12, "receive document object model 1101."]

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input; [Gurram, Figure 5, and paragraph [0055] as an example of the different fields that are displayed to the user and receive various types of input. Figure 3, "[0053] ... At 301, one or more display objects are displayed to a user. As mentioned above, display objects may

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include a page, sections of a page, images, or fields of a page (e.g., text entry fields or links)....”]

receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device; [Gurram, Figure 5, “command, voice mode, stylus mode 511, 513, 515, 523, 525.” Voice mode is the non-textual model. Figure 3, “receive voice or stylus inputs 307.” Figure 1, “microphone 101.”]

converting the non-textual input to text; and [Gurram, Figure 6, “[0056] ... voice entries may be recognized and translated into text messages”]

submitting the text to the source. [Gurram, Figures 10-12, “receive user inputs 1105” and “store document object model in remote or local repository 1107.” “page associations and metadata are updated and stored on remote or local system 1208.”]

Claim 14 is a method claim with steps corresponding to limitations of Claim 3 and is rejected under similar rationale.

Claim 15 is a method claim with steps corresponding to limitations of Claim 4 and is rejected under similar rationale.

Claim 18 is a computer-readable-medium (CRM) claim with steps corresponding to limitations of Claim 1 and is rejected under similar rationale.

Claim 20 is a computer-readable-medium (CRM) claim with steps corresponding to limitations of Claim 15 and is rejected under similar rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5 and 16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Gurram in view of Bodin (U.S. 2007/0043758).

Regarding **Claim 5**, **Gurram** teaches:

... claim 3, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content, [Gurram, Figure 11, steps 1101 to 1104 where the document that is received from the server is parsed and its fields are determined. Paragraph 63: "At 1104, the metadata and associations are applied to the objects in the DOM and the components of the multimodal software, and the page is displayed to the user."]

analyzing the at least one input field to identify a type of input, and [Gurram, Figure 11 and Figure 10: "[0062] As mentioned, client 1001 may receive multimodal enabled web pages from a server 1030 over network 1020 from server 1030. Server 1030 may store information associated with pages including information for displaying particular display objects, associations between the display objects and voice commands, voice modes, and touch screen modes, for example. The data specifying the display objects and associations between the objects and voice commands, voice

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modes, and touch screen modes may be defined by users of other client systems or as part of an application or service, for example, and transmitted to other clients for use.”]

determining that **a non-textual input device is available for entering the input**. [Figure 1, “[0047] FIG. 1 ... a computer system 100 may include a microphone 101 for receiving voice inputs. ... other manual input mechanisms such as a keyboard, mouse, or a touch screen display for receiving manual selection inputs (e.g., keyboard entries, mouse clicks, or touch screen inputs).” “[0050] Each display object may further have associated voice modes 140 and manual select modes 150 (e.g., a touch screen mode). ... A short text entry voice mode may cause the system to automatically enable a microphone and speech recognizer so that if a user provides a voice input, the voice input is translated into text (i.e., recognized) and the text may be entered into the data entry field”]

In Gurram, the various input device are taught. But Gurram does not teach that the identifying of the input fields includes identifying that a device is also available for the type of input that is identified.

Bodin teaches:

determining that a non-textual input device is available for entering the input. [Bodin, [0045] OSGi also provides a set of standard services called the Device Access Specification. The Device Access Specification (“DAS”) provides services to identify a device connected to the services gateway, search for a driver for that device, and install the driver for the device.”]

Gurram and Bodin pertain to multimodal input including speech recognition and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device and drive identification and detection of Bodin (which is well known in the art) with the system of Gurram to provide for the situation where the mobile device may not have all of the input devices and drivers for the various input modes and the presence of the device needs to be verified. This is use of a known technique to improve similar devices, methods, or products in the same way. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Claim 16 is a method claim with steps corresponding to limitations of Claim 5 and is rejected under similar rationale.

4. Claims 8-12, 17 and 19 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Gurram in view of Aizenbud-Reshef (U.S. 2009/0144056).

Regarding **Claim 8**, Gurram does not discuss filtering/pre-selection/correction of the ASR or OCR results.

Aizenbud-Reshef teaches:

... claim 6, further comprising **filtering the non-textual input based, at least partially, upon the context**. [Aizenbud-Reshef, “A method for providing recognition error correction information, the method includes: obtaining metadata associated with a capture of a media item; and generating recognition error correction information in response to the metadata. The recognition error correction information is to be used in a recognition process selected out of a list consisting of an automatic speech recognition process and an optical characters recognition process.” Abstract. The “metadata

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associated with a capture of a media item" teaches the "context" of the Claim. See paragraphs 16 and 17 of the reference for the explanation that the location and subject of the "speech" or "image" that are being recognized determine the metadata. Location and domain of the input voice or image are other types of context. Also, the "error correction information" of Aizenbud-Reshef is the "filtering" of the Claim as evidenced in paragraphs 16 and 17 that describe how the words of a recognizer are selected based on the location and subject of the input.]

Gurram and Aizenbud-Reshef pertain to multimodal input including speech and character recognition and it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the context-based filtering/selection/"recognition error correction information" of Aizenbud-Reshef with the ASR/OCR method of Gurram to provide for more accurate recognition results. Use of the location or domain of speech to select the appropriate dictionary for ASR is well-known and practiced in the art. This is use of a known technique to improve similar devices, methods, or products in the same way. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Regarding **Claim 9**, **Gurram** teaches:

... claim 8,

wherein the input device comprises a microphone for capturing audio, and [Gurram, Figure 1, "[0047] ... For example, a user may interact with objects in a program display 110 by issuing voice inputs through a microphone 101 coupled to the computer system 100...."]

wherein converting the input to text comprises using a speech-to-text converter to generate the text based upon the audio. [Gurram, "[0050] Each display object may further have associated voice modes 140 and manual select modes 150 (e.g., a touch screen mode). For example, a data entry field may be associated with a "short text entry" voice mode. A short text entry voice mode may cause the system to automatically enable a microphone and speech recognizer so that if a user provides a voice input, the voice input is translated into text (i.e., recognized) and the text may be entered into the data entry field...."]

Regarding **Claim 10**, Gurram does not teach the filtering/correcting/selecting of the recognition results according to context.

Aizenbud-Reshef teaches:

... claim 9, wherein **filtering the non-textual input comprises modifying a vocabulary associated with the speech-to-text converter.** [Aizenbud-Reshef "[0050] Stage 216 is followed by stage 218 of correcting errors in pre-corrected information to correct errors. It is noted that the correction can include selecting between words in a dictionary or a lexicon based upon recognition error correction information. For example, if an automatic speech recognition entity has to select between "screen" and "spline" (both are in the vocabulary) and the speech signals were captured in the context of "buying a computer", it is more probable that the right transcription is "screen"." See paragraph 16 for an example of filtering/selecting in the context of OCR. (Compare with the example cited in the Specification of the instant Application.)]

Refer to rationale provided for Claim 8 which provides why Gurram may be modified by or combined with Aizenbud-Reshef.

Regarding **Claim 11, Gurram** teaches:

... claim 8,

wherein the input device comprises a camera for capturing an image, and

wherein converting the input to text comprises using an optical character recognition process to generate the text based upon the image. [Gurram, applies OCR to the entries by the stylus. “[0051] ... Software 210 may generate such metadata based on user inputs, or it may use metadata generated by other users, or both. Metadata 215 may also be used for specifying recognition parameters, such as grammars that define voice commands and/or voice mode inputs or text recognition parameters if a stylus script recognizer is used...” “[0058] ... For instance, a user may write the name "John Smith" using a stylus in field 820, and the system may enter the written stylus script into a recognizer and translate the script into text.”]]

Gurram does not have a camera and teaches only the use of the stylus.

Aizenbud-Reshef teaches:

wherein the input device comprises a camera for capturing an image, and [Aizenbud-Reshef, “[0002] It is desired to extract textual information from images or from speech signal sequences captured by various capture devices such as mobile phones equipped with a camera and/or a recorder.” Figure 5, “Capture device 130.”]

wherein converting the input to text comprises using an optical character recognition process to generate the text based upon the image. [Aizenbud-Reshef, “[0016] Conveniently, dictionaries for OCR correction ...for correcting errors of the OCR process”]

Gurram and Aizenbud-Reshef pertain to multimodal input including speech and character recognition and it would have been obvious to one of ordinary skill in the art at the time of the invention to add the camera of Aizenbud-Reshef with the input devices of method of Gurram to provide for input of data via capture of an image by a camera in addition to a stylus. Gurram already includes OCR and adding a camera would be a reasonable improvement. This is use of a known technique to improve similar devices, methods, or products in the same way. See MPEP 2141, KSR, 550 U.S. at____, 82 USPQ2d at 1396.

Regarding **Claim 12**, Gurram does not teach the correction/filtering/selection of the more appropriate recognition model based on context.

Aizenbud-Reshef teaches:

... claim 11, wherein **filtering the non-textual input comprises modifying a vocabulary associated with the optical character generation process.** [Aizenbud-Reshef, “[0016] Conveniently, dictionaries for OCR correction are compiled based on media item metadata and personal user information. For example, if the media item capture location (included in the metadata) indicates that the image was captured at a conference site, and if the user's calendar indicates that the user was expected to

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attend a certain lecture at the media item capture time then the recognition error correction information (such as a dictionary) that is used for correcting errors of the OCR process can include words related to the lecture and, additionally or alternatively, to the conference.”]

Refer to rationale provided for Claim 8 which provides why Gurram may be modified by or combined with Aizenbud-Reshef.

Claim 17 is a method claim with steps corresponding to limitations of Claims 6, 7, and 8 and is rejected under similar rationale.

Gurram teaches:

17. The method of claim 13, further comprising:

determining a context associated with the content, [Gurram, paragraphs 50-54 and Figures 2-5. The form/content that is sent by the “Application 220” of Figure 1 and is being displayed to the user as “program display 110” has various fields of entry or “display object(s) 120.” Each of the “objects 120” which may be fields on a form, require a different type of entry shown in Figure 2 such as “voice input 211,” “manual select input 212,” “recognition 216,” etc. So, the “object” which is part of the “content” of the Claim has a “context” which determines whether it takes voice or stylus input: “receive a voice or a stylus command corresponding to the display object 305.”]

the context indicating which of a plurality of input devices is to be used to capture the non-textual input; and [Gurram, paragraphs 50-54 and Figures 3, 4.

E.g., Depending on the field of the form being displayed, i.e. context, the type of device

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used to enter the data is determined: “[0054] At 401, a user is prompted for a plurality of inputs. For example, a page may be displayed to a user, and the page may include multiple text entry input fields, selectable links or images, or a variety of other potential inputs. At 402, the system receives a command specifying one of the inputs. In one embodiment, a user may tap the stylus on an object to select the object (e.g., tapping a "Name" input field). Alternatively, a user may speak a voice command to select a particular object (e.g., speaking the word "name")....”]

filtering the non-textual input based, at least partially, upon the context.

Gurram does not teach the filtering/pre-selection/correction information generation process.

Aizenbud-Reshef teaches:

filtering the non-textual input based, at least partially, upon the context.

[Aizenbud-Reshef, abstract and paragraphs 16 and 17 setting forth how the location and subject of discussion which are also types of context determine the lexicon used for the character or speech recognition processes.]

Refer to rationale provided for Claim 8 which provides why Gurram may be modified by or combined with Aizenbud-Reshef.

Claim 19 is a computer-readable-medium (CRM) claim with steps corresponding to limitations of Claim 17 and is rejected under similar rationale.

Conclusion

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

The concept of "context" appears in the Specification of the instant Application as follows:

[0034] If the application 106 determines, in operation 204, that multi-mode input is supported, the method 200 proceeds to operation 206. At operation 206, the application 106 determines a context associated with the content 110 and/or the client device 102. As mentioned above, the context associated with the content 110 and/or the client device 102 can be used to determine which, if any, of the input devices 108 to activate and/or what types of information should be captured via the input devices 108. Additionally, or alternatively, the context associated with the content 110 and/or the client device 102 can be used to filter input 116 obtained via the input devices 108, as noted above. As noted above, the context can include a location associated with the client device 102, keywords or tags associated with or included in the content 110, names of variables or values associated with form elements in the content 110, combinations thereof, and the like.

...

[0038] From operation 212, the method 200 proceeds to operation 214, wherein the application 106 converts the filtered input 116 to text 118. As noted herein, the input 116 can be converted from audio to text, from an image to text, from a click on a map or other similar interface to coordinates, ZIP codes, location coordinates, combinations thereof, and the like. In one illustrative example, the input 116 can include sound input captured via a microphone of a client device 102, wherein the microphone captured a word pronounced like the word "one." As is known, this word can correspond at least to the words "won" and "one," and the numeral "1." According to various implementations of the concepts and technologies disclosed herein, the contextual information determined in operation 210 is used to determine which word or number is likely intended. For example, if the field into which this word is entered corresponds to a field for collecting data indicating a ZIP code, the application 106 can determine that the user intended to

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enter the numeral "1," and therefore can filter the input to reflect this expected intention. It should be understood that this embodiment is illustrative, and should not be construed as being limiting in any way.

Another **Bodin (U.S. 2007/0168191)** teaches: "[0151] The method of FIG. 13 also includes setting (318) audio operation of a data management and data rendering module to the selected predetermined audio configuration (316). Setting (318) audio operation of a data management and data rendering module to the selected predetermined audio configuration (306) typically includes identifying audio input devices and audio output devices specified by the predetermined audio configuration, activating those audio input and output devices, deactivating other audio input and output devices, and administering the attribute values of the activated audio input and audio output according to the predefined audio configuration."

See also **Horvitz (U.S. 2007/0136222)** for the role of "user context."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARIBA SIRJANI whose telephone number is (571)270-1499. The examiner can normally be reached on Monday through Thursday 9am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre-Louis Desir can be reached on 571-272-7799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/FARIBA SIRJANI/
Examiner, Art Unit 2659

/PIERRE-LOUIS DESIR/
Supervisory Patent Examiner, Art Unit 2659

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*	C	US-2003/0046401 A1	03-2003	Abbott et al.	709/228
*	D	US-6,674,426 B1	01-2004	McGee et al.	345/173
*	E	US-2004/0243415 A1	12-2004	Commarford et al.	704/275
*	F	US-2005/0251746 A1	11-2005	Basson et al.	715/708
*	G	US-2006/0247925 A1	11-2006	Haenel et al.	704/215
*	H	US-2007/0043758 A1	02-2007	Bodin et al.	707/102
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*	J	US-2007/0136222 A1	06-2007	Horvitz, Eric J.	706/045
*	K	US-2007/0168191 A1	07-2007	Bodin et al.	704/257
*	L	US-2007/0156853 A1	07-2007	Hipp et al.	709/219
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	N					
	O					
	P					
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*	C	US-2010/0105364 A1	04-2010	YANG, Seung-Jin	455/414.1
*	D	US-7,853,582 B2	12-2010	Gopalakrishnan, Kumar C.	707/708
*	E	US-2011/0074693 A1	03-2011	Ranford et al.	345/173
*	F	US-8,010,286 B2	08-2011	Templeton et al.	701/412
*	G	US-2011/0282664 A1	11-2011	Tanioka et al.	704/235
*	H	US-8,176,438 B2	05-2012	Zaman et al.	715/815
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	T					

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	X	

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Search Notes 	Application/Control No. 13109023	Applicant(s)/Patent Under Reexamination VARTHAKAVI ET AL.
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CPC- SEARCHED		
Symbol	Date	Examiner
(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	7/15/2014	fs

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
704	235	7/15/2014	fs

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor search and keyword search of EAST. Search advic from P.D. Shah.e	4/15/2014	fs

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/FARIBA SIRJANI/ Examiner.Art Unit 2659	
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S22	535	"I3" and (OCR (optical near2 character))	US-PGPUB; USPAT; DERWENT	OR	ON	2014/04/17 08:07

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2108	704/235.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 12:57
S2	8078	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 12:58
S3	1	"20120296644".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:29
S4	60	koll.in. near detlef	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:29
S5	1	"20120296646".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:37
S6	2	varthakavi.in. near mohan	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:39
S7	4	nanduri.in. near jayaram	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:39
S8	91	kothari.in. near nikhil	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:40
S9	95	S6 S7 S8	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:40
S10	1	S6 and S7 and S8	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:40
S11	1	S9 and "704".clas.	US-	OR	ON	2014/04/15

			PGPUB; USPAT; UPAD			13:42
S12	0	S9 and S2	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/15 13:42
S13	7	("20070266087" "20080118162" "20090285444" "20090315740" "7610547" "7644649" "7787693").PN.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 07:13
S14	873	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr)	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:08
S15	0	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"05172011"	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:09
S16	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:10
S17	1	"20070124507".pn.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:15
S18	1	S16 and S17	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 15:17
S19	19	("2007/0124507").URPN.	USPAT	OR	ON	2014/04/16 15:18
S20	49	("20010018653" "20020107696" "20040049388" "20040073431" "20040230637" "20040243415" "20050102146" "20050251746" "20060206340" "20060247925" "20070124507" "20080134102" "20080162143" "20100066684" "20100105364" "20110074693" "20110097693" "20110282664" "20120215531" "20120216134" "20120260176" "20120260177" "4596031" "4726065" "5335276" "5600765" "5749072" "5970452" "6069648" "6167374" "6321197" "6396477" "6421672" "6539350" "6559830" "6804653" "6813603" "6915258" "7023498" "7177814" "7287018" "7292986" "7610199" "7904296" "8185392" "8195319" "8224656" "8255218" "8326636").PN. OR ("8543397").URPN.	US- PGPUB; USPAT	OR	ON	2014/04/16 15:26
S21	27	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/16 16:04

		@ad<"20110517" and (ocr (optical near2 recogni\$4))				
S23	1	"8355915".pn.	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:01
S24	20	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/04/17 08:06
S25	20	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/04/17 08:07
S26	36790	l3and (OCR (optical near2 character))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:07
S27	7	S25 and (OCR (optical near2 character))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 08:08
S28	20	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2014/04/17 13:10
S29	1	S28 and (OCR (optical near2 character)) and (device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:10
S30	2	S28 and (input near device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:12
S31	3	S28 and (device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:13
S32	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:18
S33	158	S32 and (device near2 (identif\$4 detect\$5))	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:18
S34	94	S32 and ((identif\$4 detect\$5) adj2 device) and (device near2 input)	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:21
S35	6	S32 and ((identif\$4 detect\$5) adj2 "input device")	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 13:45
S36	706	((multimodal multi-modal) near2 (input entry)) and ((voice speech vocal verbal utterance spoken) near3 (recognition recogniz\$5 transcrib\$3 transcription decod\$3) asr) and @ad<"20110517"	US-PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:19
S37	552	S36 and (context)	US-	OR	ON	2014/04/17

			PGPUB; USPAT; UPAD			15:19
S38	156	S36 and (context near7 (content display gui form))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/17 15:20
S39	5763	(context location locale city town) near7 (((speech voice utterance) near3 (recogni\$4)) (asr))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S40	5571	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S41	2918	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr)) and "704".clas.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S42	8094	(G10L15/265 G10L15/22 H04M2201/40, H04M2201/60, G06F17/30746).cpc.	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S43	1011	(context location locale city town) near7 (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:36
S44	1515	(context location locale city town) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S45	1397	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S46	32	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42 and (context location) with (((character) near2 (recogni\$4)) (ocr))	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:37
S47	6	(context location) with (((speech voice utterance) near2 (recogni\$4)) (asr)) and S42 and (context location) with (((character) near2 (recogni\$4)) (ocr)) and camera	US- PGPUB; USPAT; UPAD	OR	ON	2014/04/18 09:38

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<i>Index of Claims</i> 	Application/Control No. 13109023	Applicant(s)/Patent Under Reexamination VARTHAKAVI ET AL.
	Examiner FARIBA SIRJANI	Art Unit 2659

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

☐ Claims renumbered in the same order as presented by applicant		☐ CPA		☐ T.D.		☐ R.1.47			
CLAIM		DATE							
Final	Original	04/15/2014							
	1	✓							
	2	✓							
	3	✓							
	4	✓							
	5	✓							
	6	✓							
	7	✓							
	8	✓							
	9	✓							
	10	✓							
	11	✓							
	12	✓							
	13	✓							
	14	✓							
	15	✓							
	16	✓							
	17	✓							
	18	✓							
	19	✓							
	20	✓							



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BIB DATA SHEET

CONFIRMATION NO. 1603

SERIAL NUMBER 13/109,023	FILING or 371(c) DATE 05/17/2011 RULE	CLASS 704	GROUP ART UNIT 2659	ATTORNEY DOCKET NO. 331991.01		
APPLICANTS INVENTORS Mohan Varthakavi, Sammamish, WA; Jayaram Nanduri, Sammamish, WA; Nikhil Kothari, Sammamish, WA; ** CONTINUING DATA ***** ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 05/26/2011						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and Acknowledged <u>/FARIBA SIRJANI/</u> Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY WA	SHEETS DRAWINGS 6	TOTAL CLAIMS 20	INDEPENDENT CLAIMS 3
ADDRESS MICROSOFT CORPORATION ONE MICROSOFT WAY REDMOND, WA 98052 UNITED STATES						
TITLE MULTI-MODE TEXT INPUT						
FILING FEE RECEIVED 1090	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit			

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		5/17/2011
	First Named Inventor	Mohan Varthakavi	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	331991.01	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7664649		2010-02-16	Jost, et al.	
	2	7610547		2009-10-27	Wang, et al.	
	3	7787693		2010-08-31	Siegemund, Frank.	

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U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20090315740	A1	2009-12-24	Hildreth, et al.	
	2	20090285444	A1	2009-11-19	Erol, et al.	
	3	20070266087	A1	2007-11-15	Hamynen, Kimmo.	

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	First Named Inventor	Mohan Varthakavi	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	331991.01	

	4	20080118162	A1	2008-05-22	Siegemund, Frank.	
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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	SIEGEMUND, et al., "Using Digital Cameras for Text Input on Mobile Devices", Retrieved at << http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4144763 >>, Fifth Annual IEEE International Conference on Pervasive Computing and Communications, March 19 - 23, 2007, Pages 8.	☐
	2	LIU, et al., "Multiscale Edge-Based Text Extraction from Complex Images", Retrieved at << http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4036951 >>, Proceedings of the 2006 IEEE International Conference on Multimedia and Expo, ICME, July 09 - 12, 2006, Pages 1721-1724.	☐
	3	CHANG, et al., "Efficient Web Search on Mobile Devices with Multi-Modal Input and Intelligent Text Summarization", Retrieved at << http://www2002.org/CDROM/poster/190.pdf >>, In Proceedings of the eleventh international World Wide Web conference, 2002, Pages 4.	☐
	4	MUELLER, et al., "Interactive Multimodal User Interfaces for Mobile Devices", Retrieved at << http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1265674 >>, Proceedings of the 37th Annual Hawaii International Conference on System Sciences, January 05 - 08, 2004, Pages 1-10.	☐
	5	"Vlingo", Retrieved at << http://www.vlingo.com/ >>, Retrieved Date: January 07, 2011, Pages 2.	☐

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	
	Filing Date	
	First Named Inventor	Mohan Varthakavi
	Art Unit	
	Examiner Name	
	Attorney Docket Number	331991.01

EXAMINER SIGNATURE			
Examiner Signature	/Fariba Sirjani/	Date Considered	04/15/2014
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/109,023	05/17/2011	Mohan Varthakavi	331991.01

CONFIRMATION NO. 1603

PUBLICATION NOTICE



OC000000057758721

69316
MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052

Title:MULTI-MODE TEXT INPUT

Publication No.US-2012-0296646-A1

Publication Date:11/22/2012

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
13/109,023	05/17/2011	2626	1090	331991.01	20	3

CONFIRMATION NO. 1603

69316
MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052

FILING RECEIPT



Date Mailed: 06/01/2011

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Applicant(s)

Mohan Varthakavi, Sammamish, WA;
Jayaram Nanduri, Sammamish, WA;
Nikhil Kothari, Sammamish, WA;

Assignment For Published Patent Application

Microsoft Corporation, Redmond, WA

Power of Attorney: The patent practitioners associated with Customer Number 69316

Domestic Priority data as claimed by applicant

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Projected Publication Date: 11/22/2012

Non-Publication Request: No

Early Publication Request: No

Title

MULTI-MODE TEXT INPUT

Preliminary Class

704

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 13/109,023				
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			N/A	330			
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A	540			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	220			
TOTAL CLAIMS (37 CFR 1.16(j))	20	minus 20 = *			OR	x 52 =	0.00			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 = *				x 220 =	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 \$270 (\$135 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			
							0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00			
			TOTAL			TOTAL	1090			
* If the difference in column 1 is less than zero, enter "0" in column 2.										
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	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.										

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		
	First Named Inventor	Mohan Varthakavi	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	331991.01	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7664649		2010-02-16	Jost, et al.	
	2	7610547		2009-10-27	Wang, et al.	
	3	7787693		2010-08-31	Siegemund, Frank.	

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	1	20090315740	A1	2009-12-24	Hildreth, et al.	
	2	20090285444	A1	2009-11-19	Erol, et al.	
	3	20070266087	A1	2007-11-15	Hamynen, Kimmo.	

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	Attorney Docket Number	331991.01		

	4	20080118162	A1	2008-05-22	Siegemund, Frank.	
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	1	SIEGEMUND, et al., "Using Digital Cameras for Text Input on Mobile Devices", Retrieved at << http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4144763 >>, Fifth Annual IEEE International Conference on Pervasive Computing and Communications, March 19 - 23, 2007, Pages 8.	☐
	2	LIU, et al., "Multiscale Edge-Based Text Extraction from Complex Images", Retrieved at << http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4036951 >>, Proceedings of the 2006 IEEE International Conference on Multimedia and Expo, ICME, July 09 - 12, 2006, Pages 1721-1724.	☐
	3	CHANG, et al., "Efficient Web Search on Mobile Devices with Multi-Modal Input and Intelligent Text Summarization", Retrieved at << http://www2002.org/CDROM/poster/190.pdf >>, In Proceedings of the eleventh international World Wide Web conference, 2002, Pages 4.	☐
	4	MUELLER, et al., "Interactive Multimodal User Interfaces for Mobile Devices", Retrieved at << http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1265674 >>, Proceedings of the 37th Annual Hawaii International Conference on System Sciences, January 05 - 08, 2004, Pages 1-10.	☐
	5	"Vlingo", Retrieved at << http://www.vlingo.com/ >>, Retrieved Date: January 07, 2011, Pages 2.	☐

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STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Mohan Varthakavi
Art Unit	
Examiner Name	
Attorney Docket Number	331991.01

EXAMINER SIGNATURE

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

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Mohan Varthakavi
Art Unit	
Examiner Name	
Attorney Docket Number	331991.01

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☒ See attached certification statement.

☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ None

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Signature	/Leonard J. Hope/	Date (YYYY-MM-DD)	2011-05-16
Name/Print	Leonard J Hope	Registration Number	44774

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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:	MULTI-MODE TEXT INPUT			
First Named Inventor/Applicant Name:	Mohan Varthakavi			
Filer:	David Bartley Eppenauer/Gopal Sharma			
Attorney Docket Number:	331991.01			
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Utility application filing	1011	1	330	330
Utility Search Fee	1111	1	540	540
Utility Examination Fee	1311	1	220	220
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 (\$)				1090

Electronic Acknowledgement Receipt

EFS ID:	10103661
Application Number:	13109023
International Application Number:	
Confirmation Number:	1603
Title of Invention:	MULTI-MODE TEXT INPUT
First Named Inventor/Applicant Name:	Mohan Varthakavi
Customer Number:	69316
Filer:	David Bartley Eppenauer/Gopal Sharma
Filer Authorized By:	David Bartley Eppenauer
Attorney Docket Number:	331991.01
Receipt Date:	17-MAY-2011
Filing Date:	
Time Stamp:	08:01:33
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 1090
RAM confirmation Number	8048
Deposit Account	500463
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Drawings-only black and white line drawings	331991-01-Drawings.pdf	220105	no	6
			02424fb0380a2838de6315999524f48986ad5d96		
Warnings:					
Information:					
2	Oath or Declaration filed	331991-01-Executed-Declaration.pdf	94708	no	2
			572a3fbf7cebb7cbd345b3f985abb1a792a7d492		
Warnings:					
Information:					
3	Transmittal Letter	331991-01-IDS-Cover-Sheet.pdf	17571	no	3
			436a18565855a289d38cf992fb7f68f8138d2a52		
Warnings:					
Information:					
4	NPL Documents	331991-01-NPL1.pdf	575048	no	8
			b5a8ccc7b2043ab2025105aa45027fd453163a32		
Warnings:					
Information:					
5	NPL Documents	331991-01-NPL2.pdf	153554	no	4
			126943293d9ada6d835a1325d444d5d62bcd0b2d		
Warnings:					
Information:					
6	NPL Documents	331991-01-NPL3.pdf	89133	no	4
			45e336f4f0f2934a705fd08021e4386b7dc842ee		
Warnings:					
Information:					
7	NPL Documents	331991-01-NPL4.pdf	316159	no	10
			66dc3548b2f79587cc934205aa6b71334e3eef18		
Warnings:					
Information:					
8	NPL Documents	331991-01-NPL5.pdf	52490	no	2
			9d75f3898fcc244d12cb08686e250b8424d43e03		
Warnings:					
Information:					

9		331991-01-Application.pdf	101425	yes	23
			2bb1686305357f519c2d527374524e705043b9a0		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	18	
	Claims		19	22	
	Abstract		23	23	
Warnings:					
Information:					
10	Application Data Sheet	331991-01-PTO-ADS-Form.pdf	40572	no	5
			460f18316e400f230d197761ad292c61f9d643af		
Warnings:					
Information:					
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11	Information Disclosure Statement (IDS) Filed (SB/08)	331991-01-PTO-IDS-Form.pdf	34671	no	5
			2111357c04aa051e9e040a07a3297e924658e6ea		
Warnings:					
Information:					
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12	Fee Worksheet (PTO-875)	fee-info.pdf	32830	no	2
			372b3aed1dcb6e63c7ad4ba1b277126ff88fca57		
Warnings:					
Information:					
Total Files Size (in bytes):			1728266		

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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.

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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

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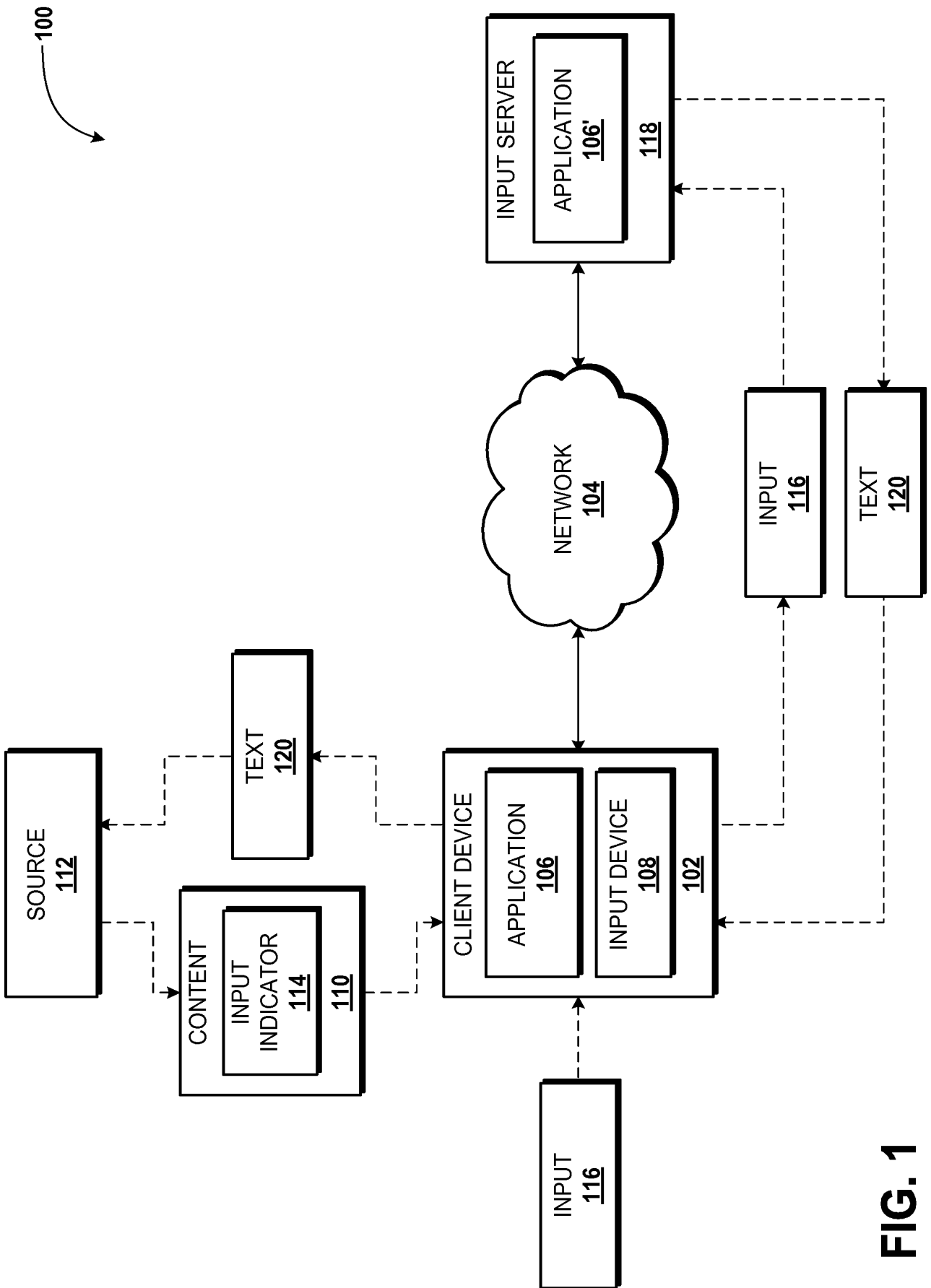


FIG. 1

200

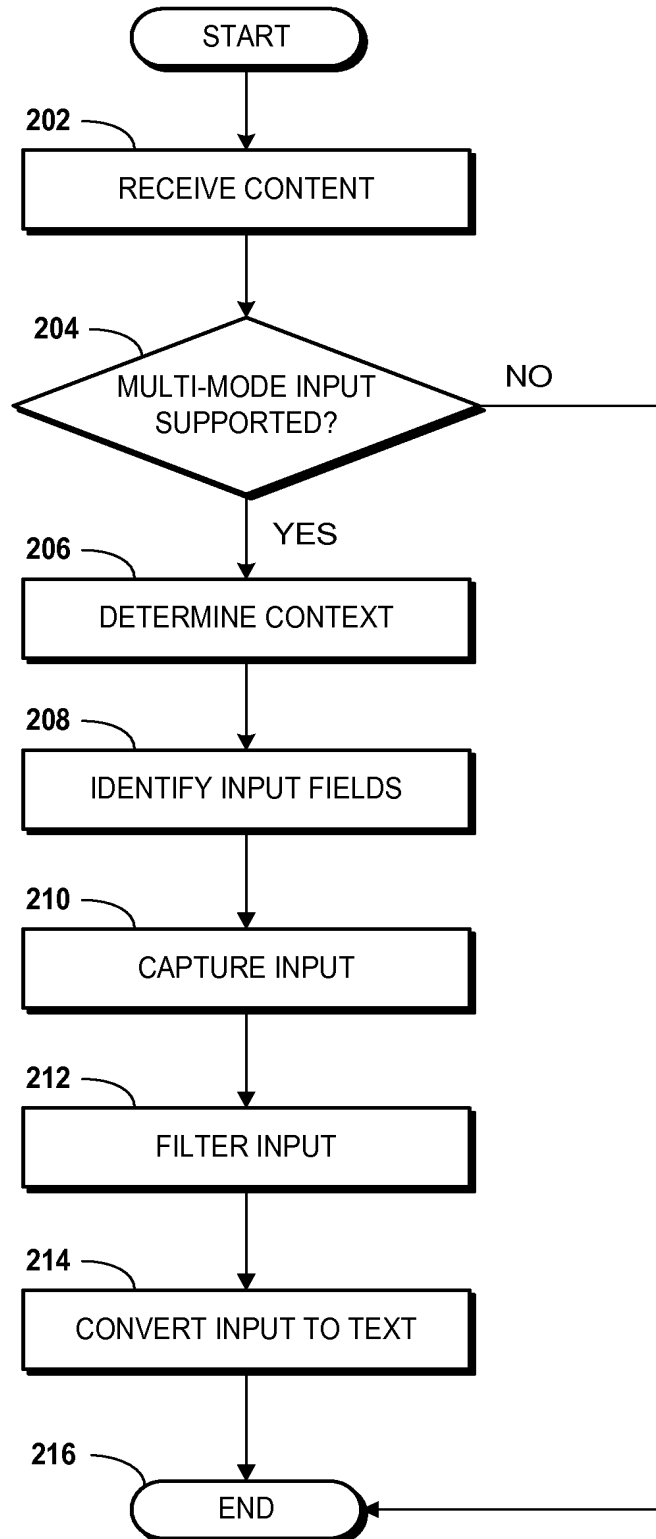


FIG. 2

300B

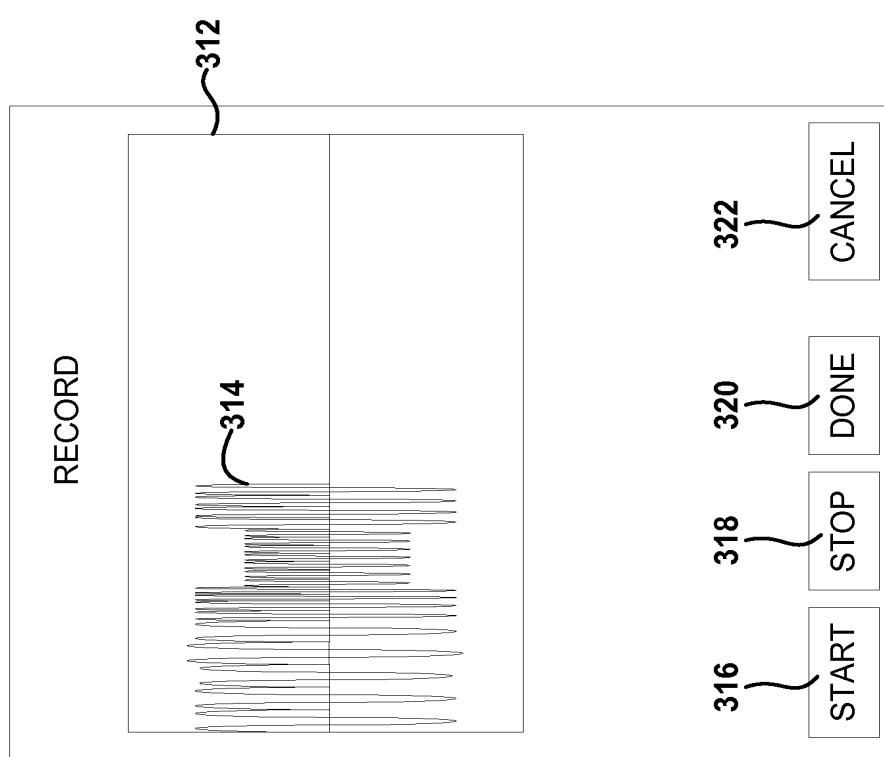


FIG. 3B

300A

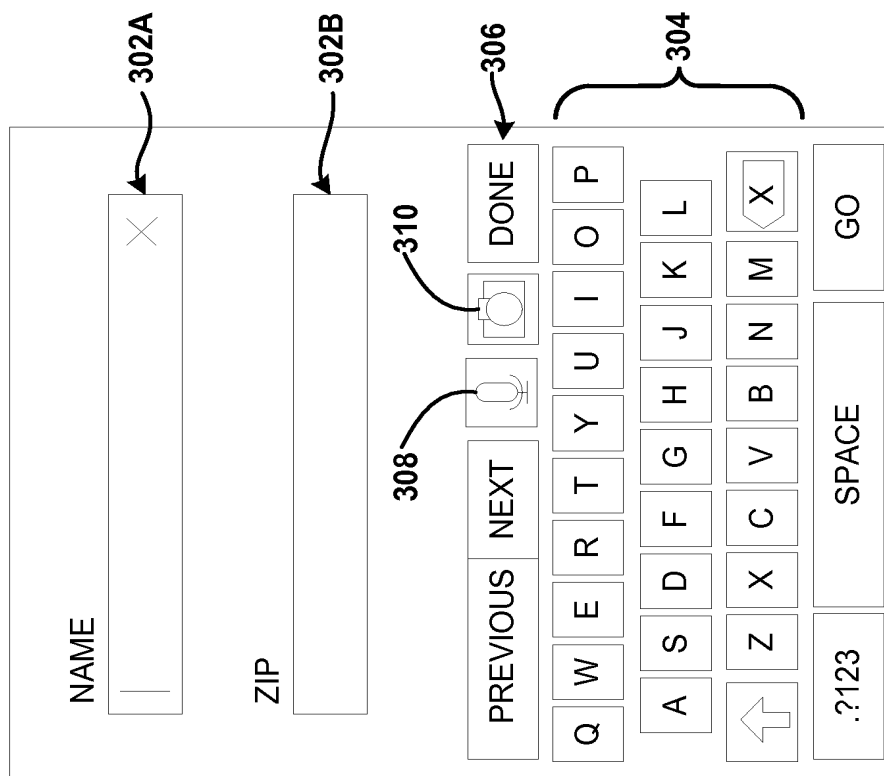


FIG. 3A

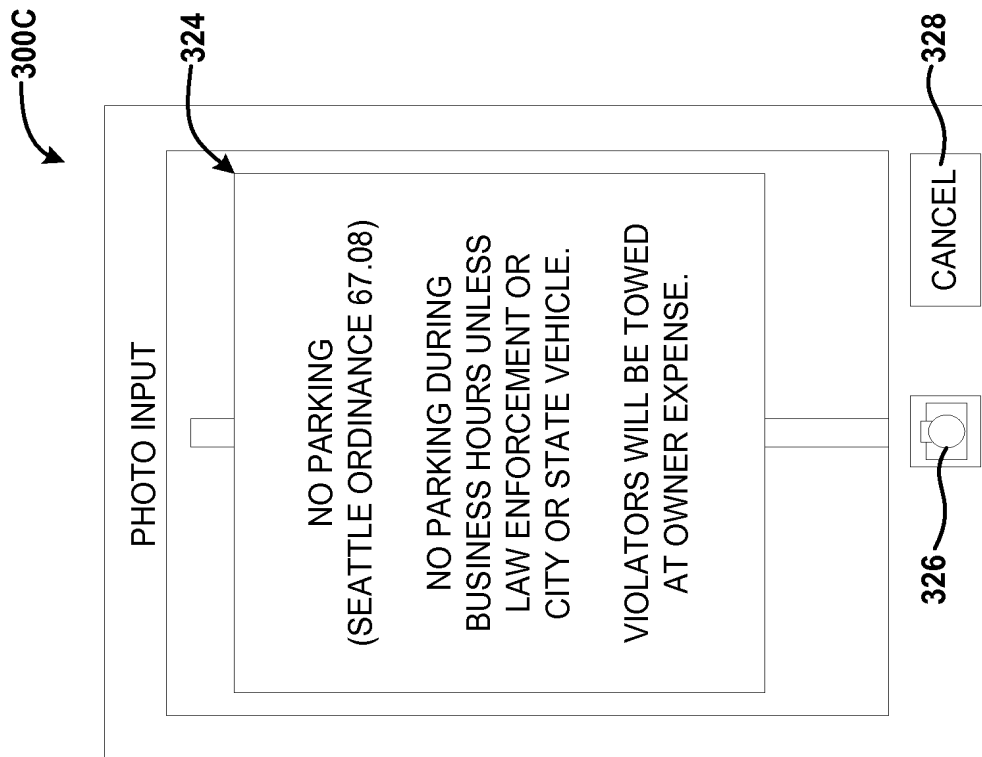


FIG. 3C

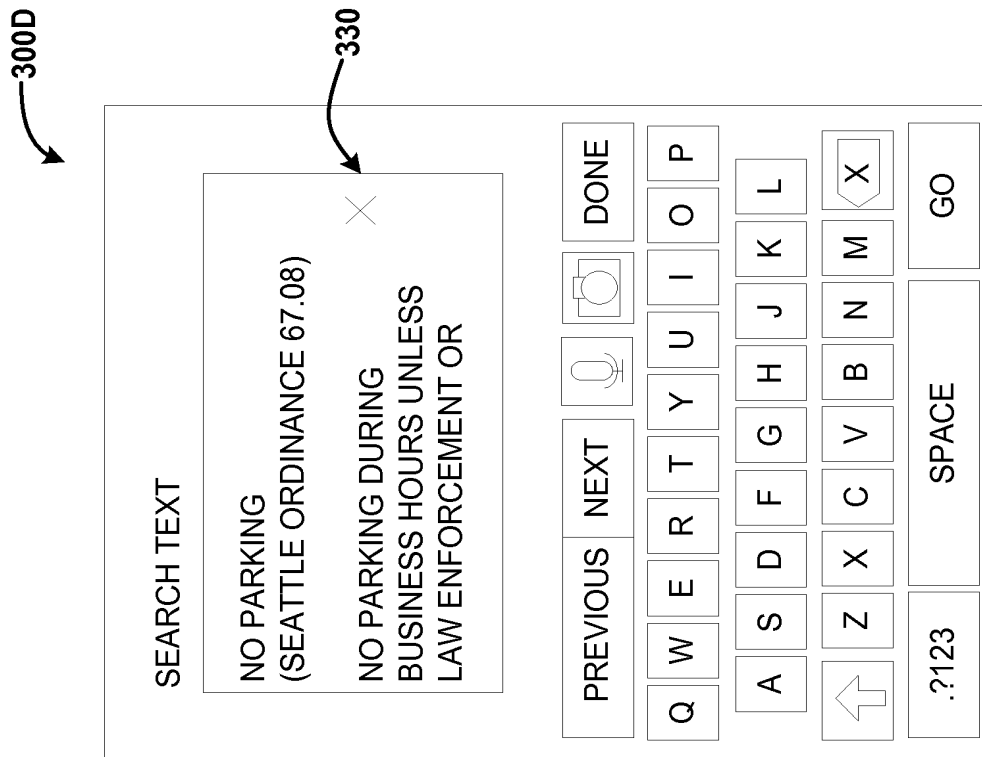


FIG. 3D

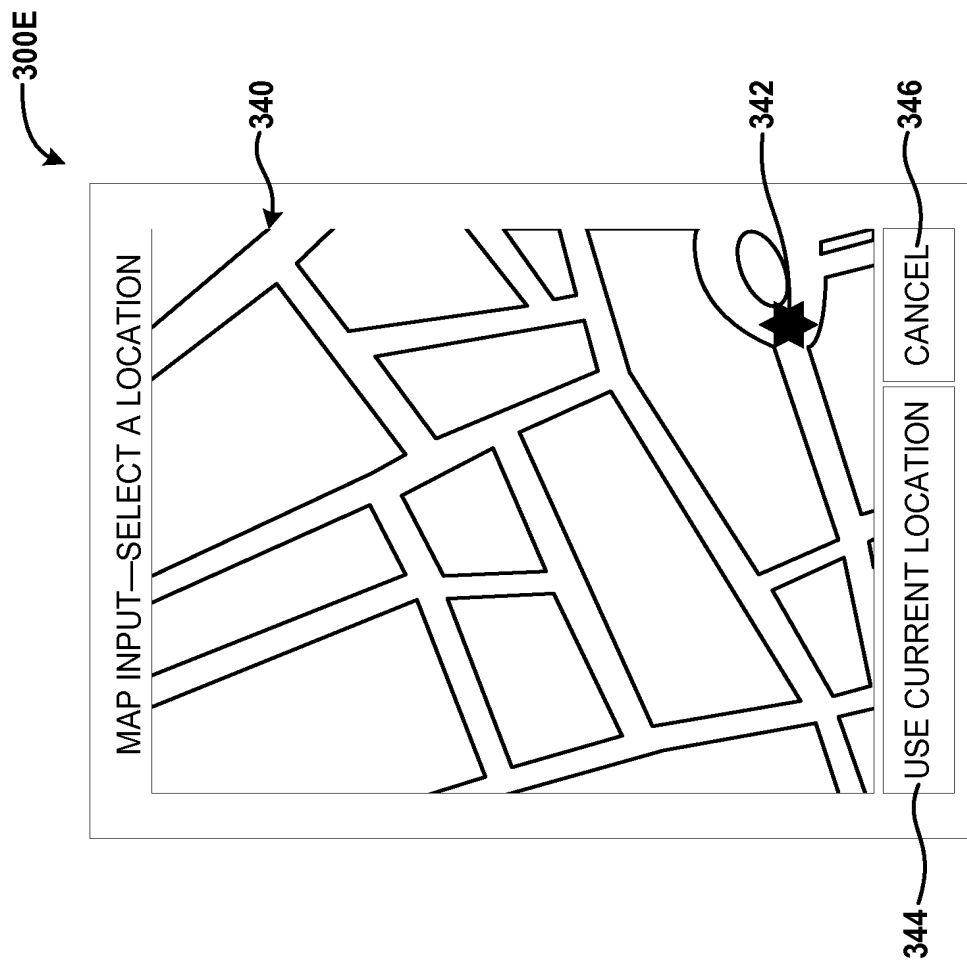


FIG. 3E

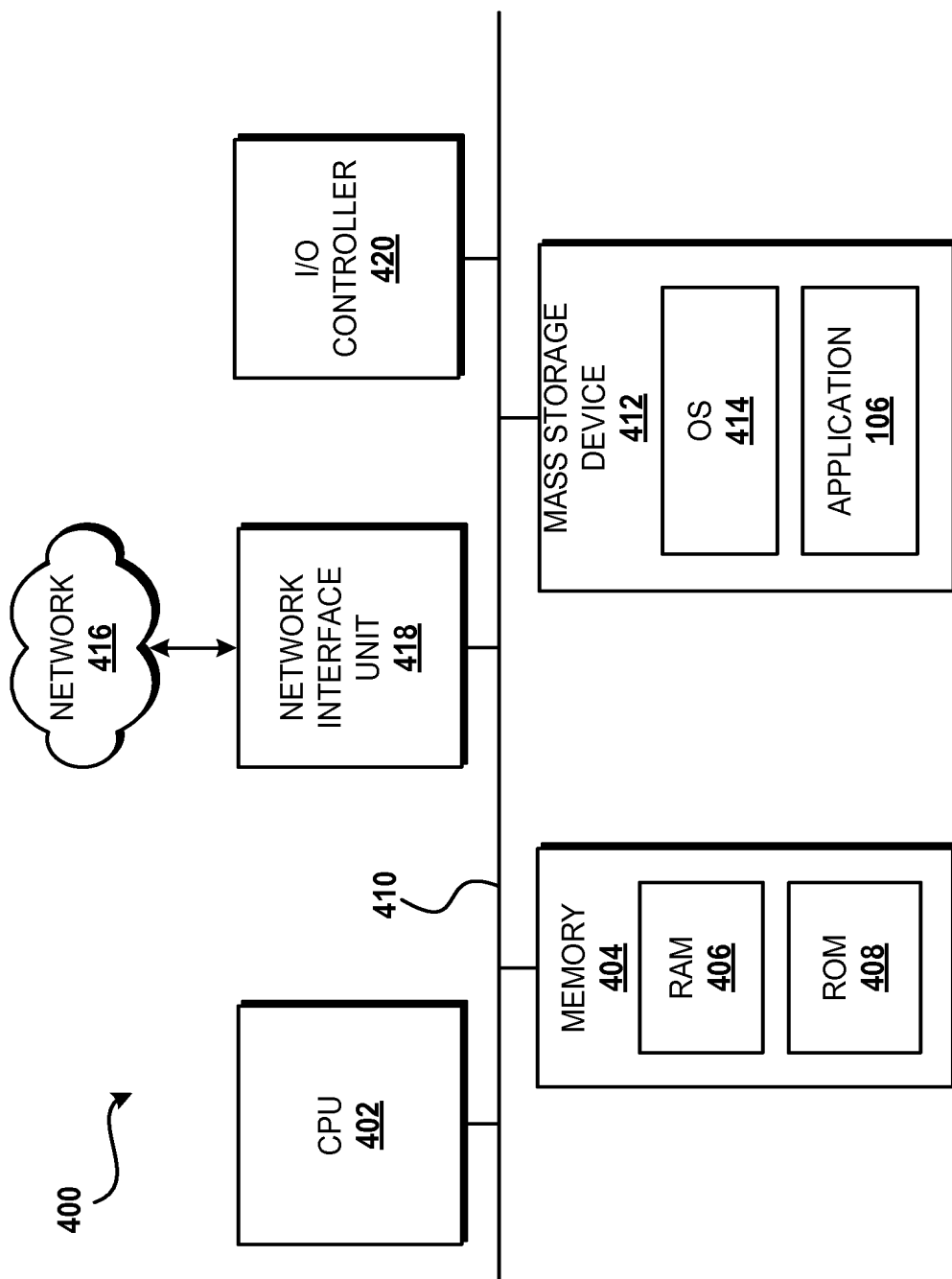


FIG. 4

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

MULTI-MODE TEXT INPUT

the specification of which

☒ is filed herewith

OR

☐ was filed on _____ as US Application Serial No. or PCT International Application Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

Authorization To Permit Access To Application by Participating Offices

☒ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified application is filed access to the above-identified patent application, and related applications, in accordance with 37 CFR 1.14(c) and (h). In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

Foreign Application(s) and/or Claim of Foreign Priority

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent or inventor's certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			YES: _____ NO: _____

POWER OF ATTORNEY:

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) associated with

Customer No.: 69316

to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Send Correspondence to:
Microsoft Corporation
Patent Group Docketing Dept.
One Microsoft Way
Redmond, WA 98052

Direct Telephone Calls To:
Contact Name: Steven Spellman
Contact Phone Number: 425.707.9382

MS DOCKET: 331991.01
Title: Multi-Mode Text Input

PATENT APPLICATION

DECLARATION AND POWER OF ATTORNEY

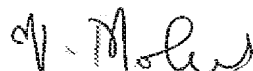
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, 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.

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05/13/2011
Date

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Inventor's Signature

05/13/2011
Date

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Residence: Sammamish, Washington / USA

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Inventor's Signature

5/13/2011
Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Mohan Varthakavi
Application No.: New Application
Filed: Herewith
Customer No.: 69316

Attorney Docket No.: 331991.01
Group Art Unit: Not Yet Assigned
Confirmation Number: Not Yet Assigned
Examiner: Not Yet Assigned

Title: MULTI-MODE TEXT INPUT

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

**STATEMENT FILED PURSUANT TO
THE DUTY OF DISCLOSURE UNDER 37 C.F.R. §§ 1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

PART I: Compliance with 37 C.F.R. § 1.97

This Information Disclosure Statement has been filed within three (3) months of the filing date of a National Application.

No fee or certification is required.

PART II: Additional Information

The Applicant hereby makes the following additional information of record in the above-identified application.

<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor(s)</u>
N/A	N/A	N/A

PART III: Remarks

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO/SB/08A. The order of presentation of the references should not be construed as an indication of the importance of the references. Documents cited on the attached form PTO/SB/08A are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO/SB/08A be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. § 102.

Notwithstanding any statement by the Applicant, the Applicant urges the Examiner to form his own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Date: 5/16/2011

Respectfully submitted,

By: /Leonard J. Hope/

Leonard J Hope

Reg. No. 44,774

Microsoft Corporation

One Microsoft Way

Redmond WA 98052-6399

Direct telephone (425) 707-9382

CERTIFICATE OF MAILING OR TRANSMISSION
(Under 37 CFR § 1.8(a)) or ELECTRONIC FILING

I hereby certify that this correspondence is being electronically deposited with the USPTO via EFS-Web on the date shown below:

05/17/2011

Date

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Signature

Gopal Sharma

Printed Name

MULTI-MODE TEXT INPUT

BACKGROUND

[0001] One of the benefits of providing content to users over the Internet and/or via stand-alone applications that consume web-based content is that a relatively consistent user experience can be provided to users via this medium. Specifically, multiple users viewing content using different web browsers and/or different computing platforms may nonetheless have substantially identical experiences because the content is rendered from the same source code and/or interacted with using simple text input.

[0002] At the same time, the consistent input mechanisms used to interact with Internet and/or application content can be a limitation as users interact with Internet and/or application content using increasingly diverse devices and/or device platforms. More particularly, users may be limited to interacting with content via text input and/or mouse gestures, though a device used to access the content may lack a mouse and/or a standard keyboard.

[0003] It is with respect to these and other considerations that the disclosure made herein is presented.

SUMMARY

[0004] Concepts and technologies are described herein for multi-mode text input. In accordance with the concepts and technologies disclosed herein, users can interact with content using various input devices such as microphones or cameras in addition to, or instead of, using standard text input and/or mouse gestures. Input collected using the input devices can be converted into text and submitted to an entity associated with the content to allow interactions with the content to occur via multiple input modes. As such, users can interact with applications and sites via various types of input devices.

[0005] According to one aspect, a client device having an input device executes an application. The application is configured to receive content from a source and to analyze the content to determine if the content supports text input and/or if a user can interact with the content via other types of input devices. In some implementations, the determination is made by analyzing the content to identify one or more input indicators. The input indicators can include explicit indicators that the

content supports multi-mode text input including, but not limited to, meta tags, flags, or other data that enable the interactions via the various input devices. In other implementations, the input indicators include implicit indicators such as, for example, one or more fields, forms, or other mechanisms by which users interact with the content.

[0006] According to another aspect, the application is configured to filter the input captured via the various input devices. The application can filter the input based upon contextual information associated with the content and/or a client device associated with a user submitting the input. Thus, for example, the application can take into account a location of a user or a client device when converting the input to text. If the input is submitted via a microphone or other audio input device, the application can filter the input based upon grammar, accents, dialects, and/or other information to apply contextual information to the speech to text process. Similar filtering can be completed for image to text processes as well, if desired, and location information can be filtered based upon a current location of the user or a client device associated with the user. In other embodiments, mapping applications, address books, and/or other applications or data sources can be used to obtain address information, telephone numbers, and the like.

[0007] It should be appreciated that the above-described subject matter may be implemented as a computer-controlled apparatus, a computer process, a computing system, or as an article of manufacture such as a computer-readable storage medium. These and various other features will be apparent from a reading of the following Detailed Description and a review of the associated drawings.

[0008] This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended that this Summary be used to limit the scope of the claimed subject matter. Furthermore, the claimed subject matter is not limited to implementations that solve any or all disadvantages noted in any part of this disclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIGURE 1 is a system diagram illustrating an illustrative operating environment for the various embodiments disclosed herein.

[0010] FIGURE 2 is a flow diagram showing aspects of a method for providing multi-mode text input, according to an illustrative embodiment.

[0011] FIGURES 3A-3E are user interface diagrams showing aspects of exemplary user interfaces for providing multi-mode text input, according to various embodiments.

[0012] FIGURE 4 is a computer architecture diagram illustrating an illustrative computer hardware and software architecture for a computing system capable of implementing aspects of the embodiments presented herein.

DETAILED DESCRIPTION

[0013] The following detailed description is directed to concepts and technologies for multi-mode text input. According to the concepts and technologies described herein, content is received at and/or presented on a client device. The content can include one or more explicit or implicit input indicators. The input indicators can indicate to an application executed by the client device that user input can be used in conjunction with consumption or use of the content. The application is configured to recognize the input indicators and to analyze the content to determine context associated with the content and/or the client device executing the application. The application also is configured to determine, based upon the content and/or the contextual information, which input device to use to obtain input associated with use or consumption of the content.

[0014] The application also is configured to perform filtering on the input and to generate text based upon the filtered input. Thus, for example, the application can apply grammar, dialect, accent, and/or other information to speech or other audio input when performing a speech to text process. Similarly, images can be captured with a camera, and text can be recognized in the image using optical character recognition, by understanding the content of the image, by converting a logo to text, by reading a bar code or other information in the image, and/or by other processes. Other types of input, input devices, and filtering can be used in accordance with the concepts and technologies disclosed herein. Additionally, in some embodiments an input server executes an application so that conversion of the input to text can be performed remotely from the client device. The text generated by the application can be provided in place of text input and therefore can be submitted without use of a mouse, keyboard, and/or other traditional input devices.

[0015] While the subject matter described herein is presented in the general context of program modules that execute in conjunction with the execution of an operating system and application programs on a computer system, those skilled in the art will recognize that other implementations may be performed in combination with other types of program modules. Generally, program modules include routines, programs, components, data structures, and other types of structures that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the subject matter described herein may be practiced with other computer system configurations, including hand-held devices, multiprocessor systems, microprocessor-based or programmable consumer electronics, minicomputers, mainframe computers, and the like.

[0016] In the following detailed description, references are made to the accompanying drawings that form a part hereof, and in which are shown by way of illustration specific embodiments or examples. Referring now to the drawings, in which like numerals represent like elements throughout the several figures, aspects of a computing system, computer-readable storage medium, and computer-implemented methodology for multi-mode text input will be presented.

[0017] Referring now to FIGURE 1, aspects of one operating environment **100** for the various embodiments presented herein will be described. The operating environment **100** shown in FIGURE 1 includes a client device **102** operating on or in communication with a network **104**. According to various embodiments, the functionality of the client device **102** is provided by a mobile computing device such as a smartphone, a mobile telephone, a tablet computer, a netbook computer, a laptop computer, a personal digital assistant (“PDA”), or other device. In other embodiments, the functionality of the client device **102** is provided by a personal computer (“PC”) such as a desktop computer system or another computing device such as a server computer, an embedded computer system, a set top box (“STB”) or the like. For purposes of illustrating the concepts and technologies disclosed herein, the client device **102** is described as a smartphone. It should be understood that this embodiment is illustrative, and should not be construed as being limiting in any way.

[0018] The client device **102** is configured to execute an operating system and one or more application programs such as, for example, an application **106** and/or other application programs. The operating system is a computer program for controlling the operation of the client device **102**. The application **106** is an

executable program configured to execute on top of the operating system to provide the functionality described herein for providing multi-mode text input. According to various implementations of the concepts and technologies disclosed herein, the application **106** is configured to control one or more input devices **108** associated with the client device **102**. According to several illustrative embodiments, the input devices **108** include a microphone, a camera, and/or other types of input devices.

[0019] As will be described in more detail herein, the application **106** is configured to receive content **110** from a source **112** such as a website, a server computer, a database, or other systems or devices in communication with the client device **102**. In some embodiments, the content **110** corresponds to a web page that is hosted or served by the source **112**. As such, the functionality of the source **112** can be provided by one or more web servers or other hosting platforms. In other embodiments, the source **112** can correspond to an application or content hosted or executed by the client device **102**. As such, it should be understood that the source **112** can be, but is not necessarily, a remotely executed or accessed source of the content **110**. As such, it should be understood that the embodiments illustrated and described herein are illustrative, and should not be construed as being limiting in any way.

[0020] The application **106** is configured to analyze the content **110** to determine if the content **110** is configured to support multiple input modes. In particular, the content **110** can include a meta tag, a flag, or other data (“input indicator”) **114** for indicating to the application **106** whether or not the content **110** supports functionality for providing multiple modes of text input. In some embodiments, the meta tag or flag can be provided in a syntax associated with hypertext markup language (“HTML”), extensible markup language (“XML”), and/or other languages for coding and/or scripting various web pages, applications, scripts, and/or other types of content. The meta tags also can be provided in other syntaxes and/or formats, if desired.

[0021] In other embodiments, the content **110** does not include an explicit indication of whether multiple input modes are supported. As such, the input indicators **114** in the content **110** can include one or more form elements or other elements associated with inputting data into applications, web pages, or other types of files or documents, and the application **106** can determine, based upon contextual

information associated with the content **110**, whether or not the content **110** can be interacted with via multiple input modes.

[0022] If the application **106** determines that the content **110** can be interacted with via multiple input modes, the application **106** can determine what input modes can be supported for interacting with the content **110**. More particularly, the application **106** is configured to recognize types of data and/or types of data input associated with the content **110** and/or fields or forms associated with the content **110**, and to determine one or more input modes for interacting with the content **110**. For example, the application **106** can determine that content **110** includes a form for inputting an address. For example, the application **106** can recognize a form element in the content **110**, and can recognize that the form element is associated with an address, for example by recognizing that a value input into the form element is given the label or attribute “address” or other similar label or attribute.

[0023] Based upon this determination, the application **106** can determine that in addition to rendering the form element to enable text input, that a microphone for collecting speech input, a camera for collecting image input, and/or an address book or map interface for providing addresses can be provided to enable input of the address via multiple input modes. Thus, the application **106** can be configured to determine if content **110** includes input mechanisms, and if so, what type of input is to be captured. As will be explained in more detail, the application **106** also is configured for filtering the multi-mode input based upon the contextual information associated with the content **110**.

[0024] The application **106** also is configured to activate and/or control the input device **108** to obtain non-textual input (“input”) **116** from a user or other entity. For example, the application **106** is configured to activate a camera to capture one or more images as the input **116**, and to convert the one or more images into text input (“text”) **118** for submission to an application, website, or other source **112** associated with the content **110**. Similarly, the application **106** is configured to activate a microphone to obtain speech or sound as the input **116**, and to convert the speech or sound into a text format and to pass text **118** corresponding to the speech to the source **112**. As such, from the perspective of the source **112**, the client device **102** interacts with the content **110** via text commands, though in reality a user may interact with the input **116** via multiple input modes such as speech, imaging, address book entries, map locations, and/or other types of input that are converted by the application **106**.

into the text **118**. The application **106** can be configured to activate additional or alternative input devices **108**, and as such, it should be understood that the above-mentioned embodiments for interacting with the content **110** are illustrative, and should not be construed as being limiting in any way.

[0025] As discussed above, the application **106** can be executed by the client device **102** to provide the functionality described herein. In some embodiments, the application **106** executed by the client device **102** is configured to capture the input **116** and to transmit the input **116** to an input server **120** that executes a server-side application **106'**. As such, in some embodiments, the conversion of the input **116** from images, sound, address book information, map information, and/or other types of input to the text **118** can be completed remotely from the client device **102**. As such, some embodiments of the concepts and technologies disclosed herein can be used to conserve computing, power, and/or other resources associated with the client device **102**. In some embodiments, the input server **120** is configured to return the text **118** to the client device **102** for consumption or use at the client device **102** and/or for communication to the source **112** or another entity associated with the content **110**. Although not shown in FIGURE 1, the input server **120** can also be configured to communicate the text **118** directly to the source **112**, if desired.

[0026] According to various implementations, as mentioned above, the input device **106** also is configured to filter the input **116** based upon contextual information associated with the client device **102** and/or the content **110**. More particularly, the application **106** can be configured to filter the input **116** by altering a vocabulary used by a speech-to-text and/or image-to-text converter based upon various considerations such as, for example, a type of input expected from a user or other entity, an accent, dialect, and/or speech patterns associated with a location at which the client device **102** is operating, local roads or street names, types of fields or form elements associated with a particular data input, combinations thereof, and the like. As such, embodiments of the concepts and technologies disclosed herein can be used to allow filtering of the input **116** to improve the results obtained via use of the application **106**. These and other aspects of the application **106** are described below in more detail.

[0027] FIGURE 1 illustrates one client device **102**, one network **104**, one source **112**, and one input server **120**. It should be understood, however, that some implementations of the operating environment **100** include multiple client devices

102, multiple networks **104**, multiple sources **112**, and/or multiple input servers **120**. Thus, the illustrated embodiments should be understood as being illustrative, and should not be construed as being limiting in any way.

[0028] Turning now to FIGURE 2, aspects of a method **200** for providing multimode text input for applications and sites will be described in detail. It should be understood that the operations of the method **200** disclosed herein are not necessarily presented in any particular order and that performance of some or all of the operations in an alternative order(s) is possible and is contemplated. The operations have been presented in the demonstrated order for ease of description and illustration. Operations may be added, omitted, and/or performed simultaneously, without departing from the scope of the appended claims.

[0029] It also should be understood that the illustrated method **200** can be ended at any time and need not be performed in its entirety. Some or all operations of the method **200**, and/or substantially equivalent operations, can be performed by execution of computer-readable instructions included on a computer-storage media, as defined herein. The term “computer-readable instructions,” and variants thereof, as used in the description and claims, is used expansively herein to include routines, applications, application modules, program modules, programs, components, data structures, algorithms, and the like. Computer-readable instructions can be implemented on various system configurations, including single-processor or multiprocessor systems, minicomputers, mainframe computers, personal computers, hand-held computing devices, microprocessor-based, programmable consumer electronics, combinations thereof, and the like.

[0030] Thus, it should be appreciated that the logical operations described herein are implemented (1) as a sequence of computer implemented acts or program modules running on a computing system and/or (2) as interconnected machine logic circuits or circuit modules within the computing system. The implementation is a matter of choice dependent on the performance and other requirements of the computing system. Accordingly, the logical operations described herein are referred to variously as states, operations, structural devices, acts, or modules. These operations, structural devices, acts, and modules may be implemented in software, in firmware, in special purpose digital logic, and any combination thereof.

[0031] For purposes of illustrating and describing the concepts of the present disclosure, the method **200** disclosed herein is described as being performed by the

client device **102** via execution of the application **106**. As explained above with reference to FIGURE 1, in some embodiments the client device **102** interacts with an application **106'** executed by the input server **120** to provide the functionality described herein. As such, it should be understood that the embodiments described with reference to FIGURE 2 are illustrative, and should not be viewed as being limiting in any way.

[0032] The method **200** begins at operation **202**, wherein the client device **102** receives content **110**. The content **110** can be received from a source **112** such as a web server or other host for providing web pages or applications accessible or executable by the client device **102** and/or other entities. The source **112** also can correspond to an application executed by the client device **102**. As such, the content **110** can correspond to a web page, an application page, application data, other types of files, user interfaces (“UIs”), combinations thereof, and the like.

[0033] From operation **202**, the method **200** proceeds to operation **204**, wherein the application **106** determines if the content **110** is configured to allow submission of data as multi-mode input. As mentioned above, the application **106** determines if the content **110** supports multi-mode input in a number of ways. For example, in some embodiments, the application **106** searches the content **110** for an explicit input indicator **114** such as, for example, a meta tag, a flag, or other data indicating that the content **110** supports submission of multi-mode input. In other embodiments, the application **106** determines if the content **110** supports multimode input by searching for an implicit input indicator **114** such as one or more keywords, form elements, and/or other input mechanisms, combinations thereof, and the like that indicate that input is used in conjunction with consumption or use of the content **110**. Because other methods of determining if the content **110** and/or the client device **102** support multi-mode input are contemplated, it should be understood that the above-mentioned embodiments are illustrative, and should not be construed as being limiting in any way.

[0034] If the application **106** determines, in operation **204**, that multi-mode input is supported, the method **200** proceeds to operation **206**. At operation **206**, the application **106** determines a context associated with the content **110** and/or the client device **102**. As mentioned above, the context associated with the content **110** and/or the client device **102** can be used to determine which, if any, of the input devices **108** to activate and/or what types of information should be captured via the input devices

108. Additionally, or alternatively, the context associated with the content **110** and/or the client device **102** can be used to filter input **116** obtained via the input devices **108**, as noted above. As noted above, the context can include a location associated with the client device **102**, keywords or tags associated with or included in the content **110**, names of variables or values associated with form elements in the content **110**, combinations thereof, and the like.

[0035] From operation **206**, the method **200** proceeds to operation **208**, wherein the application **106** analyzes the content **110** and identifies one or more input fields in the content **110**. For example, if the content **110** corresponds to a web page that includes a form, the application **106** can analyze the web page to identify each input field or other form element in the form. As is generally understood, input fields or other form elements can be identified by tags, flags, and/or other data. As such, the application **106** can identify the input fields in the content **110** by identifying these flags, fields, other form elements, and/or other data. It should be understood that this embodiment is illustrative, and should not be construed as being limiting in any way.

[0036] From operation **208**, the method **200** proceeds to operation **210**, wherein the application **106** captures the input **116** via operation of the input device **108** and/or via enabling capturing of the input **116** via one or more commands issued to the input device **108**. For example, in some embodiments, as explained herein, the application **106** is configured to control one or more input devices **108** associated with the client device **102** to obtain the input **116**. In other embodiments, the application **106** is configured to command the input devices **108** as to how to capture the input **116**. Regardless of how the application **106** interacts with the input devices **108**, operation **210** can include capturing the input **116**.

[0037] From operation **210**, the method **200** proceeds to operation **212**, wherein the application **106** filters the input **116** received in operation **210**. As explained above, the application **106** is configured to filter the input **116** based upon various types of information including, but not limited to, operating information associated with the client device **102** such as a current location of the client device **102**, enabled input devices **108** associated with the client device **102**, keywords, tags, and/or other data associated with the content **110** received in operation **202**, combinations thereof, and the like. Filtering the input **116** can include, for example, restricting or broadening a vocabulary used in speech-to-text conversions and/or image to text conversions such as optical character recognition (“OCR”) and/or other

processes, restricting street names or other map information based upon a present location, altering the input **116** to reflect accent, dialect, and/or other language differences, combinations thereof, and the like.

[0038] From operation **212**, the method **200** proceeds to operation **214**, wherein the application **106** converts the filtered input **116** to text **118**. As noted herein, the input **116** can be converted from audio to text, from an image to text, from a click on a map or other similar interface to coordinates, ZIP codes, location coordinates, combinations thereof, and the like. In one illustrative example, the input **116** can include sound input captured via a microphone of a client device **102**, wherein the microphone captured a word pronounced like the word “one.” As is known, this word can correspond at least to the words “won” and “one,” and the numeral “1.” According to various implementations of the concepts and technologies disclosed herein, the contextual information determined in operation **210** is used to determine which word or number is likely intended. For example, if the field into which this word is entered corresponds to a field for collecting data indicating a ZIP code, the application **106** can determine that the user intended to enter the numeral “1,” and therefore can filter the input to reflect this expected intention. It should be understood that this embodiment is illustrative, and should not be construed as being limiting in any way.

[0039] From operation **214**, and/or from operation **204** if the application **106** determines that multi-mode input is not supported, the method **200** proceeds to operation **216**. The method **200** ends at operation **216**.

[0040] Turning now to FIGURE **3A**, a user interface diagram showing aspects of a user interface (“UI”) for providing multi-mode text input in one embodiment will be described. In particular, FIGURE **3A** shows a screen display **300A** generated by the application **106** according to one particular implementation presented herein. It should be appreciated that the UI diagram illustrated in FIGURE **3A** is illustrative of one contemplated embodiment, and therefore should not be construed as being limited in any way.

[0041] The screen display **300A** shown in FIGURE **3A** is illustrated as displaying a web site, application screen, or other interface including two input fields **302A**, **302B**. The input field **302A** is illustrated as a field for inputting a name, and the input field **302B** is illustrated as a field for inputting a ZIP code. It should be understood that this embodiment is illustrative, and should not be construed as being

limiting in any way. The screen display **300A** also includes a number of UI controls for providing a touchscreen keyboard **304**. According to some embodiments, presentation of the touchscreen keyboard **304** can be prompted in response to selecting or otherwise indicating a desire to enter data into one or more of the input fields **302A**, **302B**.

[0042] The screen display **300A** also includes a menu area **306** that includes various UI controls for providing various functionality associated with the application **106**. In the illustrated embodiment, the menu area **306** includes a UI control **308** for accessing a microphone mode of input, the selection of which causes the application **106** to enable or control operation of the microphone to capture sound as the input **116**. The menu area **306** also includes a UI control **310** for accessing a camera, the selection of which causes the application **106** to enable or control operation of the camera to capture one or more images as the input **116**. Illustrative user interfaces for capturing sound, images, and map information and converting these types of input to data are illustrated and described below with reference to FIGURES **3B**, **3C**, and **3E**.

[0043] Turning to FIGURE **3B**, a screen display **300B** generated by the application **106** is illustrated, according to an illustrative embodiment. In some embodiments, the screen display **300B** is presented by the application **106** in response to selection of the UI control **308** illustrated in FIGURE **3A**, though this is not necessarily the case. The screen display **300B** includes a monitor area **312** for displaying a waveform **314** or other visual representation associated with captured audio, though this is not necessarily the case. In some embodiments, the monitor area **312** is used to provide feedback to the user or other entity, though in some embodiments such feedback is not desired or needed, and therefore may be omitted. In the illustrated embodiment, a user is actively recording sound, and the waveform **314** associated with the captured audio is displayed in the monitor area **312** as the audio is captured. It should be understood that this embodiment is illustrative, and should not be construed as being limiting in any way.

[0044] The screen display **300B** also includes a UI control **316** for starting recording, the selection of which causes the application **106** to begin recording audio. The screen display **300B** also includes a UI control **318** for stopping recording of the audio, the selection of which causes the application **106** to stop recording audio. The screen display **300B** also includes a UI control **320** for indicating that recording of audio is complete and/or a UI control **322** for cancelling recording of the audio. It

will be appreciated that the screen display **300B** can be provided to provide feedback to a user during recording of audio and/or to allow a user to control recording of the audio. In some embodiments, the application **106** is configured to record audio and stop recording of the audio automatically, without the presentation of the screen display **300B**. As such, the illustrated embodiment should be understood as being illustrative.

[0045] Turning to FIGURE **3C**, a screen display **300C** generated by the application **106** is illustrated, according to an illustrative embodiment. In some embodiments, the screen display **300C** is presented by the application **106** in response to selection of the UI control **310** illustrated in FIGURE **3A**, though this is not necessarily the case. The screen display **300C** includes a viewfinder area **324** for displaying an image being captured by the input device **116**. In the illustrated embodiment, a user is pointing an image capture device of the client device **102**, for example a camera, at a sign to capture text displayed on the sign. It should be understood that this embodiment is illustrative, and should not be construed as being limiting in any way. The screen display **300C** also includes a UI control **326** for capturing an image or images and a UI control **328** for cancelling capturing of the one or more images.

[0046] Turning now to FIGURE **3D**, a screen display **300D** generated by the application **106** is illustrated, according to an illustrative embodiment. In some embodiments, the screen display **300D** is presented by the application **106** in response to selection of the UI control **326** illustrated in FIGURE **3C**, though this is not necessarily the case. After capturing an image having text or other visual information, the image is passed to the application **108** for completion of an OCR or other text recognition or text extraction procedure. In the illustrated embodiment, the screen display **300D** is displaying a web page having a search field, and the application **106** uses a photo input mode to populate the search field. The screen display **300D** includes a search field **330** for entering, editing, and/or displaying text corresponding to a search string. In the illustrated embodiment, the search string corresponds to text recognized in an image captured by the client device **102**, for example, the sign illustrated in the viewfinder **324** shown in FIGURE **3C**. It should be understood that this embodiment is illustrative, and should not be construed as being limiting in any way.

[0047] Furthermore, as shown in FIGURE 3D, the keyboard 304 illustrated in FIGURE 3A can again be displayed in FIGURE 3D. As such, some embodiments support editing of captured and/or filtered text 118 during or after capturing the input 116 as disclosed herein. It should be understood that the embodiment shown in FIGURE 3D is illustrative, and should not be construed as being limiting in any way.

[0048] Turning now to FIGURE 3E, a screen display 300E generated by the application 106 is illustrated, according to an illustrative embodiment. In some embodiments, the screen display 300E is presented by the application 106 in response to selection of a UI control for providing input via selection of a location on a map, though this is not necessarily the case. The screen display 300E includes a map display 340 for displaying a map. Although not shown in the embodiment illustrated in FIGURE 3E, it should be understood that the map display 340 can include zoom controls, panning controls, and/or other controls for manipulating the displayed map, if desired.

[0049] In addition to displaying a map, the map display 340 also can display a current location indicator 342. The screen display 300E also includes a UI control 344 for entering location using a current location detected or known by the client device 102 and a UI control 346 for cancelling providing input via selection of allocation on a map. In the illustrated embodiment, a user selects a point on the map display 340 by touching the screen of the client device 102 at the point. In response to touching the screen of the client device 102 at the point, the application 106 determines coordinates, a street address, and/or another indication of location corresponding to the selected point. The coordinates, street address, and/or other indication can be converted to the text 118, as explained herein, and the text 118 can be submitted.

[0050] FIGURE 4 illustrates an illustrative computer architecture 400 for a device capable of executing the software components described herein for providing multi-mode text input. Thus, the computer architecture 400 illustrated in FIGURE 4 illustrates an architecture for a server computer, mobile phone, a PDA, a smart phone, a desktop computer, a netbook computer, a tablet computer, a laptop computer, and/or other devices described herein with respect to the client device 102 and/or the input server 120. The computer architecture 400 may be utilized to execute any aspects of the software components presented herein.

[0051] The computer architecture **400** illustrated in FIGURE 4 includes a central processing unit **402** (“CPU”), a system memory **404**, including a random access memory **406** (“RAM”) and a read-only memory (“ROM”) **408**, and a system bus **410** that couples the memory **404** to the CPU **402**. A basic input/output system containing the basic routines that help to transfer information between elements within the computer architecture **400**, such as during startup, is stored in the ROM **408**. The computer architecture **400** further includes a mass storage device **412** for storing the operating system **414** and the application **106**. Although not shown in FIGURE 4, the mass storage device **412** also can be configured to store the application **106'**, if desired.

[0052] The mass storage device **412** is connected to the CPU **402** through a mass storage controller (not shown) connected to the bus **410**. The mass storage device **412** and its associated computer-readable media provide non-volatile storage for the computer architecture **400**. Although the description of computer-readable media contained herein refers to a mass storage device, such as a hard disk or CD-ROM drive, it should be appreciated by those skilled in the art that computer-readable media can be any available computer storage media or communication media that can be accessed by the computer architecture **400**.

[0053] Communication media includes computer readable instructions, data structures, program modules, or other data in a modulated data signal such as a carrier wave or other transport mechanism and includes any delivery media. The term “modulated data signal” means a signal that has one or more of its characteristics changed or set in a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, RF, infrared and other wireless media. Combinations of the any of the above should also be included within the scope of computer-readable media.

[0054] By way of example, and not limitation, computer storage media may include volatile and non-volatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data. For example, computer media includes, but is not limited to, RAM, ROM, EPROM, EEPROM, flash memory or other solid state memory technology, CD-ROM, digital versatile disks (“DVD”), HD-DVD, BLU-RAY, or other optical storage, magnetic cassettes, magnetic tape,

magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by the computer architecture **400**. For purposes the claims, the phrase “computer storage medium” and variations thereof, does not include waves, signals, and/or other transitory and/or intangible communication media, per se.

[0055] According to various embodiments, the computer architecture **400** may operate in a networked environment using logical connections to remote computers through a network such as the network **104**. The computer architecture **400** may connect to the network **104** through a network interface unit **416** connected to the bus **410**. It should be appreciated that the network interface unit **416** also may be utilized to connect to other types of networks and remote computer systems, for example, the source **112**, the input server **120**, and/or other networks, systems, devices, and/or other entities. The computer architecture **400** also may include an input/output controller **418** for receiving and processing input from a number of other devices, including a keyboard, mouse, or electronic stylus (not shown in FIGURE 4). Similarly, the input/output controller **418** may provide output to a display screen, a printer, or other type of output device (also not shown in FIGURE 4).

[0056] It should be appreciated that the software components described herein may, when loaded into the CPU **402** and executed, transform the CPU **402** and the overall computer architecture **400** from a general-purpose computing system into a special-purpose computing system customized to facilitate the functionality presented herein. The CPU **402** may be constructed from any number of transistors or other discrete circuit elements, which may individually or collectively assume any number of states. More specifically, the CPU **402** may operate as a finite-state machine, in response to executable instructions contained within the software modules disclosed herein. These computer-executable instructions may transform the CPU **402** by specifying how the CPU **402** transitions between states, thereby transforming the transistors or other discrete hardware elements constituting the CPU **402**.

[0057] Encoding the software modules presented herein also may transform the physical structure of the computer-readable media presented herein. The specific transformation of physical structure may depend on various factors, in different implementations of this description. Examples of such factors may include, but are not limited to, the technology used to implement the computer-readable media, whether the computer-readable media is characterized as primary or secondary

storage, and the like. For example, if the computer-readable media is implemented as semiconductor-based memory, the software disclosed herein may be encoded on the computer-readable media by transforming the physical state of the semiconductor memory. For example, the software may transform the state of transistors, capacitors, or other discrete circuit elements constituting the semiconductor memory. The software also may transform the physical state of such components in order to store data thereupon.

[0058] As another example, the computer-readable media disclosed herein may be implemented using magnetic or optical technology. In such implementations, the software presented herein may transform the physical state of magnetic or optical media, when the software is encoded therein. These transformations may include altering the magnetic characteristics of particular locations within given magnetic media. These transformations also may include altering the physical features or characteristics of particular locations within given optical media, to change the optical characteristics of those locations. Other transformations of physical media are possible without departing from the scope and spirit of the present description, with the foregoing examples provided only to facilitate this discussion.

[0059] In light of the above, it should be appreciated that many types of physical transformations take place in the computer architecture **400** in order to store and execute the software components presented herein. It also should be appreciated that the computer architecture **400** may include other types of computing devices, including hand-held computers, embedded computer systems, personal digital assistants, and other types of computing devices known to those skilled in the art. It is also contemplated that the computer architecture **400** may not include all of the components shown in FIGURE 4, may include other components that are not explicitly shown in FIGURE 4, or may utilize an architecture completely different than that shown in FIGURE 4.

[0060] Based on the foregoing, it should be appreciated that technologies for multi-mode text input have been disclosed herein. Although the subject matter presented herein has been described in language specific to computer structural features, methodological and transformative acts, specific computing machinery, and computer readable media, it is to be understood that the invention defined in the appended claims is not necessarily limited to the specific features, acts, or media

described herein. Rather, the specific features, acts and mediums are disclosed as example forms of implementing the claims.

[0061] The subject matter described above is provided by way of illustration only and should not be construed as limiting. Various modifications and changes may be made to the subject matter described herein without following the example embodiments and applications illustrated and described, and without departing from the true spirit and scope of the present invention, which is set forth in the following claims.

CLAIMS

We claim:

1. A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving the content from a source;

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;

receiving non-textual input for interacting with the content; and

converting the non-textual input to text.

2. The method of claim 1, further comprising submitting the text to the source.

3. The method of claim 1, further comprising determining if the content is configured to support multi-mode input.

4. The method of claim 3, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

5. The method of claim 3, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content,

analyzing the at least one input field to identify a type of input, and

determining that a non-textual input device is available for entering the input.

6. The method of claim 1, further comprising determining a context associated with the content.

7. The method of claim 6, wherein the context indicates which of a plurality of input devices is to be used to capture the non-textual input.

8. The method of claim 6, further comprising filtering the non-textual input based, at least partially, upon the context.

9. The method of claim 8, wherein the input device comprises a microphone for capturing audio, and wherein converting the input to text comprises using a speech-to-text converter to generate the text based upon the audio.

10. The method of claim 9, wherein filtering the non-textual input comprises modifying a vocabulary associated with the speech-to-text converter.

11. The method of claim 8, wherein the input device comprises a camera for capturing an image, and wherein converting the input to text comprises using an optical character recognition process to generate the text based upon the image.

12. The method of claim 11, wherein filtering the non-textual input comprises modifying a vocabulary associated with the optical character generation process.

13. A computer-implemented method for interacting with content, the computer-implemented method comprising performing computer-implemented operations for:

receiving the content from a source;

identifying at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;

receiving non-textual input for interacting with the content, the non-textual input being received via one or more input devices associated with a client device;

converting the non-textual input to text; and

submitting the text to the source.

14. The method of claim 13, further comprising determining if the content is configured to support multi-mode input.

15. The method of claim 13, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

16. The method of claim 13, wherein identifying the at least one input indicator comprises

identifying at least one input field in the content,
analyzing the at least one input field to identify a type of input, and
determining that a non-textual input device is available for entering the input.

17. The method of claim 13, further comprising:

determining a context associated with the content, the context indicating which of a plurality of input devices is to be used to capture the non-textual input; and
filtering the non-textual input based, at least partially, upon the context.

18. A computer storage medium having computer readable instructions stored thereupon that, when executed by a computer, cause the computer to:

receive content from a source;

identify at least one input indicator in the content, the at least one input indicator indicating that the content is interacted with via text input;

determine that the content is configured to support interactions via multi-mode input;

receive the multi-mode input for interacting with the content, the multi-mode input being received via one or more input devices associated with a client device;

convert the multi-mode input to text; and

submit the text to the source.

19. The computer storage medium of claim 18, further comprising computer readable instructions that, when executed by a computer, cause the computer to:

determine a context associated with the content, the context indicating which of a plurality of input devices is to be used to capture the non-textual input; and

filter the non-textual input based, at least partially, upon the context.

20. The computer storage medium of claim 18, wherein identifying the at least one input indicator comprises analyzing the content to identify a meta tag in the content, the meta tag enabling the multi-mode input.

ABSTRACT

Concepts and technologies are described herein for multi-mode text input. In accordance with the concepts and technologies disclosed herein, content is received. The content can include one or more input indicators. The input indicators can indicate that user input can be used in conjunction with consumption or use of the content. The application is configured to analyze the content to determine context associated with the content and/or the client device executing the application. The application also is configured to determine, based upon the content and/or the contextual information, which input device to use to obtain input associated with use or consumption of the content. Input captured with the input device can be converted to text and used during use or consumption of the content.

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	331991.01
		Application Number	
Title of Invention	MULTI-MODE TEXT INPUT		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Applicant Information:

Applicant 1					
Applicant Authority ☒ Inventor		☐ Legal Representative under 35 U.S.C. 117		☐ Party of Interest under 35 U.S.C. 118	
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Mohan		Varthakavi		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	Sammamish	State/Province	WA	Country of Residence	US
Citizenship under 37 CFR 1.41(b)		US			
Mailing Address of Applicant:					
Address 1		c/o Microsoft Corporation			
Address 2		One Microsoft Way			
City	Redmond	State/Province	WA		
Postal Code	98052	Country	US		
Applicant 2					
Applicant Authority ☒ Inventor		☐ Legal Representative under 35 U.S.C. 117		☐ Party of Interest under 35 U.S.C. 118	
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Jayaram	NM	Nanduri		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	Sammamish	State/Province	WA	Country of Residence	US
Citizenship under 37 CFR 1.41(b)		US			
Mailing Address of Applicant:					
Address 1		c/o Microsoft Corporation			
Address 2		One Microsoft Way			
City	Redmond	State/Province	WA		
Postal Code	98052	Country	US		
Applicant 3					
Applicant Authority ☒ Inventor		☐ Legal Representative under 35 U.S.C. 117		☐ Party of Interest under 35 U.S.C. 118	
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Nikhil		Kothari		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	Sammamish	State/Province	WA	Country of Residence	US

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	331991.01	
		Application Number		
Title of Invention	MULTI-MODE TEXT INPUT			
Citizenship under 37 CFR 1.41(b)		US		
Mailing Address of Applicant:				
Address 1	c/o Microsoft Corporation			
Address 2	One Microsoft Way			
City	Redmond	State/Province	WA	
Postal Code	98052	Country	US	
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button. Add				

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
☐ An Address is being provided for the correspondence Information of this application.			
Customer Number	69316		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	MULTI-MODE TEXT INPUT		
Attorney Docket Number	331991.01	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	6	Suggested Figure for Publication (if any)	1

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)
☐ Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.			
Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	331991.01
		Application Number	
Title of Invention	MULTI-MODE TEXT INPUT		
Customer Number	69316		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.			
Prior Application Status		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).			
			Remove
Application Number	Country ⁱ	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
			☐ Yes ☒ No
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			

Assignee Information:

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.			
Assignee 1			
If the Assignee is an Organization check here. ☒			
Organization Name	Microsoft Corporation		
Mailing Address Information:			
Address 1	c/o Microsoft Corporation		
Address 2	One Microsoft Way		
City	Redmond	State/Province	WA
Country ^j	US	Postal Code	98052
Phone Number		Fax Number	
Email Address			
Additional Assignee Data may be generated within this form by selecting the Add button.			

Signature:

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number		331991.01	
		Application Number			
Title of Invention		MULTI-MODE TEXT INPUT			
Signature		/Leonard J. Hope/		Date (YYYY-MM-DD)	
				2011-05-16	
First Name	Leonard J	Last Name	Hope	Registration Number	44774

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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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.
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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.