Office Action Summary	Application No. 13/795,933	Applicant(s) GANONG ET AL.	
	Examiner HUY C. HO	Art Unit 2644	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 *03/12/2013*.

☐ 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5a) Of the above claim(s) ____ is/are withdrawn from consideration.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 *03/12/2013* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

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

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. ____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

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

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date ____.

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

4) ☐ Other: ____.

DETAILED ACTION

Specification and Drawings

1. A possible typographical error occurs in the original specification on page 5, Paragraph [0015], i.e., "FIG. 1 illustrated an exemplary …", whereas there is no such "Fig. 1" shown from all the draws, instead only "Fig. 1A" is shown. Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 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.

Claim 19 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter because as the claim recites "a computer readable medium" and the "medium" does not necessarily exclude the transitory medium, which does not fall into any of the four categories of invention, i.e., process, machine, manufacture or composition of matter. Correction is thus required.

Claim Rejections - 35 USC § 102

3. 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 –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-6, 9-11 and 18-20 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Hung et al. (U.S. Pub. No. 2014/0012573).

Regarding claim 1, Hung teaches a method of monitoring an acoustic environment of a mobile device for voice commands when the mobile device is operating in a low power mode (*Hung, the Abstract*), the method comprising:

receiving acoustic input from the environment of the mobile device while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24]);*

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24])*; and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information).*

Regarding claim 19, Hung teaches at least one computer readable medium encoded with instructions that, when executed on at least one processor, perform a method of monitoring an acoustic environment of a mobile device to receive acoustic input from the environment of the mobile device while the mobile device is operating in a low power mode (*Hung, the Abstract, Paragraph [4])*, the method comprising:

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s)*

[22]-[24]); and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information).*

Regarding claim 20, Hung teaches a mobile device (*Hung, the Abstract*), comprising:

at least one input to receive acoustic input from an environment of the mobile device while the mobile device is operating in a low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24])*;

at least one processor configured to:

detect whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24])*; and

use at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech*

recognition on the audio signal to determine whether the audio signal carries the predetermined command information).

Regarding claim 2, Hung teaches the method of claim 1, further comprising transitioning the mobile device from the low power mode to an active mode when it is detected that the acoustic input includes a voice command (*Hung, Figure 1, Step 212).*

Regarding claim 3, The method of claim 1, wherein the at least one contextual cue includes at least one of a time the acoustic input was received, motion of the mobile device, location of the mobile device, occurrence of an event on the mobile device, recent activity on the mobile device, a stored sample of the acoustic environment of the mobile device, and a power source of the mobile device (*Hung, Figure 1, Paragraph(s) [22]-[23]).*

Regarding claim 4, Hung teaches the method of claim 3, wherein the at least one contextual cue includes the time the acoustic input was received, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on the time the acoustic input was received (*Hung, Figure 1, Paragraph(s) [22]-[23]).*

Regarding claim 5, Hung teaches the method of claim 3, wherein the at least one contextual cue includes recent activity

on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of how recently the user activated the mobile device, how recently the user issued a voice command and how recently the user performed at least one action on the mobile device (*Hung, Paragraph(s) [21]-[23]*).

Regarding claim 6, Hung teaches the method of claim 3, wherein the at least one contextual cue includes an occurrence of an event on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on whether the acoustic input is received proximate in time with the occurrence of the event (*Hung, Paragraph(s) [21]-[23]*).

Regarding claim 9, Hung teaches the method of claim 3, wherein the at least one contextual cue includes the power source of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of determining whether the mobile device is being powered using the battery or connected to wall power, and a state of the battery if the mobile device is being powered using the battery (*Hung, Paragraph(s) [4]-[6]*).

Regarding claim 10, Hung teaches the method of claim 3,

wherein the at least one contextual cue includes the sample of the acoustic environment obtained by the mobile device by storing acoustic input previously received by the mobile device and determined not to include a voice command, the method further comprising subtracting the sample of the acoustic environment from the acoustic input (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 11, Hung teaches the method of claim 1, wherein a sequence of performing the plurality of processing stages is determined, at least in part, by the at least one contextual cue (*Hung, Paragraph(s) [21]-[23]*).

Regarding claim 18, Hung teaches the method of claim 1, further comprising performing one or more default actions when a specific task could not be ascertained from the acoustic input (*Hung, Paragraph(s) [21]-[23]*).

Claim Rejections - 35 USC § 103

5. 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 negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of pre-AIA 35 U.S.C. 103(c) and potential pre-AIA 35 U.S.C. 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. 103(a).

7. Claim 7 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in view of Oh et al. (U.S. Pub. No. 2010/0009719).

Regarding claim 7, The method of claim 3, wherein the at least one contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on an assessment of whether the user moved the mobile device proximate in time with receiving the acoustic input based, at least in part, on the input from the accelerometer.

Hung does not teach "the contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device".

Oh teaches "the contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device" (*Oh, Paragraph [55], acceleration/deceleration of a mobile terminal)*.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Oh that a mobile terminal includes a sensing unit to detect a current state of the mobile terminal such as acceleration or deceleration of the mobile terminal thus improving more optional features for recognizing a user's voice command of a mobile terminal.

8. Claim 8 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in view of Schrager (U.S. Patent No. 8,620,389).

Regarding claim 8, The method of claim 3, wherein the at least one contextual cue includes the location of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on determining whether the mobile device is located in at least one

of a vehicle, a home or a place of work of the user of the mobile device.

Hung does not teach "the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device".

Schrager teaches "the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device" (*Schrager, Col. 14 lines 33-40, a mobile device can be located in an automobile*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Schrager a communications device may recognize a user's spoken commands when the user travels carrying the phone by hand or in a bag or leave the communications device handsfree in an automobile thus providing the user convenience with advanced automatic voice control feature of the communications device thus attracting potential customers with the high-tech advanced product features and increasing the product sales volume.

9. Claims 12-16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in view of Newman (U.S. Pub. No. 2013/0289994).

Regarding claim 12, The method of claim 1, wherein the mobile device includes a primary processor and a secondary processor, and wherein at least one first processing stage of the plurality of processing stages is performed by the secondary processor prior to engaging the primary processor to process the acoustic input.

Hung does not teach "the mobile device includes a primary processor and a secondary processor".

Newman teaches "the mobile device includes a primary processor and a secondary processor" (*Newman, the Abstract, Paragraph [8]).*

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Newman the technique used in an mobile communication device including two processing controllers, i.e., a main CPU controller and a secondary DSP controller, wherein the DSP controller is used for picking up voice and speech recognition at a lower power consumption to conserve battery power for the main CPU controller when the main controller is in inactive mode. The two processing controllers are configured to improve battery energy conservation for a mobile communication device during voice and speech recognition.

Regarding claim 13, Hung, as modified by Newman, teaches the method of claim 12, wherein at least one second processing stage of the plurality of processing stages is performed by the primary processor only after the at least one first processing stage is performed and neither concludes that the acoustic input includes a voice command nor concludes that the acoustic input is the result of spurious acoustic activity (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 14, Hung, as modified by Newman, teaches the method of claim 12, wherein performing the at least one first processing stage includes performing at least one voice activity detection processing stage including performing at least one of spectral analysis on the acoustic input to evaluate whether the spectrum of the acoustic input is indicative of voice activity, periodicity analysis to evaluate whether the signal periodicity is indicative of voice activity, and phone loop analysis to evaluate whether the acoustic input includes speech (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 15, Hung, as modified by Newman, teaches the method of claim 12, wherein performing the at least one first processing stage comprises performing limited vocabulary automatic speech recognition on the acoustic input to detect whether the acoustic input includes an explicit voice trigger

(*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308*).

Regarding claim 16, Hung, as modified by Newman, teaches the method of claim 12, wherein performing the at least one second processing stage comprises performing at least one speech processing stage including at least one of automatic speech recognition on the acoustic input and at least one natural language processing stage to understand the meaning of the voice command (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

10. Claim 17 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in view of Mozer et al. (U.S. Pub. No. 2013/0080171).

Regarding claim 17, The method of claim 1, wherein the mobile device is capable of connecting to at least one server via a network, the method further comprising transmitting at least a portion of the acoustic information to the at least one server via the network for processing by the at least one server.

Hung does not teach "the mobile device is capable of connecting to at least one server via a network".

Mozer teaches "the mobile device is capable of connecting to at least one server via a network" (*Mozer, Paragraph [24]*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Mozer a mobile device recognizes an acoustic input signal via recognizers, i.e., an always-on recognizer 102 and a second recognizer 104 (*Mozer, Figure 1B, recognizer 102)*, wherein the always-on recognizer 102 may communicate with the second recognizer 104 over a network (*Mozer, Figure 1B, Paragraph [24])*, and the second recognizer 104 may be located in a server. The second recognizer is triggered for recognizing the acoustic input signal based on a selection of a classification.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUY C. HO whose telephone number is (571)270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Patrick Edouard can be reached on 571-272-7603. 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.

/HUY C HO/
Primary Examiner, Art Unit 2644

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13795933	GANONG ET AL.
	Examiner	Art Unit
	HUY C HO	2644

✓	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	09/25/2014								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
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	14	✓								
	15	✓								
	16	✓								
	17	✓								
	18	✓								
	19	✓								
	20	✓								

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BIB DATA SHEET

CONFIRMATION NO. 2321

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/795,933	03/12/2013	455	2644	N0484.71090US01

APPLICANTS

Nuance Communications, Inc., Burlington, MA, Assignee (with 37 CFR 1.172 Interest);

INVENTORS

William F. Ganong III, Brookline, MA;
Paul Adrian Van Mulbregt, Wayland, MA;
Vladimir Sejnoha, Lexington, MA;
Glen Wilson, Maynard, MA;

**** CONTINUING DATA **************************

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

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
04/02/2013

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /HUY C HO/ Examiner's Signature	☐ Met after Allowance HH Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		MA	10	20	3

ADDRESS

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600 Atlantic Avenue
Boston, MA 02210-2206
UNITED STATES

TITLE

METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND

FILING FEE RECEIVED		
1740	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

Electronic Acknowledgement Receipt

EFS ID:	21137332
Application Number:	13795933
International Application Number:	
Confirmation Number:	2321
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Customer Number:	91337
Filer:	Marc S. Johannes/Trish McDonald
Filer Authorized By:	Marc S. Johannes
Attorney Docket Number:	N0484.71090US01
Receipt Date:	06-JAN-2015
Filing Date:	12-MAR-2013
Time Stamp:	20:45:05
Application Type:	Utility under 35 USC 111(a)

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Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$180
RAM confirmation Number	5854
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	Miscellaneous Incoming Letter	N048471090US01-TRN-MSJ.pdf	24456 673ff64aaffe5bd9c563180c39d61f2f444ed236	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	N048471090US01-FEE-MSJ.pdf	31561 27cd3a71b25a125bab584538d5b1c018a5a9286d	no	1
Warnings:					
Information:					
3		N048471090US01-AMN-MSJ.pdf	54083 970a54c009802834d58a1108f21a1ead4515dded	yes	11

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Claims	2	6
Applicant Arguments/Remarks Made in an Amendment	7	11

Warnings:					
Information:					
4		N048471090US01-IDS-MSJ.pdf	29174 2464e09451bdb88100ddda6a2fa5b3a10939c57b	yes	4

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Transmittal Letter	1	3
Information Disclosure Statement (IDS) Form (SB08)	4	4

Warnings:

Information:

5	Fee Worksheet (SB06)	fee-info.pdf	30738 b0b72718253daa3bb897bfe4f7adeb9c387ba244	no	2

Warnings:

Information:

Total Files Size (in bytes):	170012

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

New Applications Under 35 U.S.C. 111

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

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

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

New International Application Filed with the USPTO as a Receiving Office

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

Doc Code: TRAN.LET
Document Description: Transmittal Letter

USED IN LIEU OF PTO/SB/21 (07-09)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong, III
Art Unit	2644
Examiner Name	H. C. Ho
Attorney Docket Number	N0484.71090US01

Total Number of Pages in This Submission

ENCLOSURES (*Check all that apply*)

- [X] Fee Transmittal Form
  - [ ] Fee Attached
- [X] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [X] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [ ] Other Enclosure(s) (please Identify below):

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature	/Marc S. Johannes/		
Printed name	Marc S. Johannes		
Date	January 6, 2015	Reg. No.	64,978

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: January 6, 2015 Electronic Signature: /Trish McDonald/

Electronic Patent Application Fee Transmittal

Application Number:	13795933
Filing Date:	12-Mar-2013
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Filer:	Marc S. Johannes/Trish McDonald
Attorney Docket Number:	N0484.71090US01

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($)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
		Total in USD ($)		**180**

PTO/SB/17 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it displays a valid OMB control number

FEE TRANSMITTAL

Complete if known	
Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong, III
Examiner Name	H. C. Ho
Art Unit	2644
Practitioner Docket No.	N0484.71090US01

☐ Applicant asserts small entity status. See 37 CFR 1.27.

☐ Applicant certifies micro entity status. See 37 CFR 1.29. Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

TOTAL AMOUNT OF PAYMENT ($) 180.00

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☐ Deposit Account Deposit Account Number: 23/2825 Deposit Account Name: Wolf, Greenfield & Sacks, P.C.

For the above-identified deposit account, the Director is hereby authorized to (check all that apply):

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayment of fee(s)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES (U = undiscounted fee; S = small entity fee; M = micro entity fee)

	FILING FEES			SEARCH FEES			EXAMINATION FEES			
Application Type	**U ($)**	**S ($)**	**M ($)**	**U ($)**	**S ($)**	**M ($)**	**U ($)**	**S ($)**	**M ($)**	**Fees Paid ($)**
Utility	280	140*	70	600	300	150	720	360	180	
Design	180	90	45	120	60	30	460	230	115	
Plant	180	90	45	380	190	95	580	290	145	
Reissue	280	140	70	600	300	150	2,160	1,080	540	
Provisional	260	130	65	0	0	0	0	0	0	

* The $140 small entity status filing fee for a utility application is further reduced to $70 for a small entity status applicant who files the application via EFS-Web.

2. EXCESS CLAIM FEES

Fee Description	**Undiscounted Fee ($)**	**Small Entity Fee ($)**	**Micro Entity Fee ($)**
Each claim over 20 (including Reissues)	80	40	20
Each independent claim over 3 (including Reissues)	420	210	105
Multiple dependent claims	780	390	195

Total Claims	**Extra Claims**	**Fee ($)**	**Fee Paid ($)**	**Multiple Dependent Claims**	
20 - 20 or HP =	x	=		**Fee ($)**	**Fee Paid ($)**

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	**Extra Claims**	**Fee ($)**	**Fee Paid ($)**
3 - 3 or HP =	x	=	

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $400 ($200 for small entity) ($100 for micro entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	**Extra Sheets**	**Number of each additional 50 or fraction thereof**	**Fee ($)**	**Fee Paid ($)**
- 100 =	/50 =	(round **up** to a whole number) x	=	

4. OTHER FEE(S)

	Fees Paid ($)
Non-English specification, $130 fee (no small or micro entity discount)	
Non-electronic filing fee under 37 CFR 1.16(t) for a utility application, $400 fee ($200 small or micro entity)	
Other (e.g., late filing surcharge): 1806 Submission of an Information Disclosure Statement	180.00

SUBMITTED BY

Signature	/Marc S. Johannes/	Registration No. (Attorney/Agent)	64,978	Telephone	617.646.8000
Name (Print/Type)	Marc S. Johannes			Date	January 6, 2015

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: January 6, 2015 Electronic Signature: /Trish McDonald/

FORM PTO-1449/A and B (modified PTO/SB/08)	APPLICATION NO.: 13/795,933	ATTY. DOCKET NO.: N0484.71090US01
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 12, 2013	CONFIRMATION NO.: 2321
	FIRST NAMED INVENTOR: William F. Ganong	
Sheet 1 of 1	GROUP ART UNIT: 2644	EXAMINER: Huy C. Ho

U.S. PATENT DOCUMENTS

Examiner's Initials #	Cite No.	U.S. Patent Document Number	U.S. Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		8,548,176		Bright	10-01-2013
		2003-0040339		Chang	02-27-2003
		2010-0289994		Nonaka	11-18-2010
		2014-0274211		Sejnoha et al.	09-18-2014
		2014-0278435		Ganong, III et al.	09-18-2014

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No.	Foreign Patent Document Office/ Country	Foreign Patent Document Number	Foreign Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)

OTHER ART – NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)

[NOTE – No copies of U.S. patents, published U.S. patent applications, or pending, unpublished patent applications stored in the USPTO's Image File Wrapper (IFW) system, are included. See 37 CFR § 1.98 and 1287OG163. Copies of all other patent(s), publication(s), unpublished, pending U.S. patent applications, or other information listed are provided as required by 37 CFR § 1.98 unless 1) such copies were provided in an IDS in an earlier application that complies with 37 CFR § 1.98, and 2) the earlier application is relied upon for an earlier filing date under 35 U.S.C. § 120.]

EXAMINER:	DATE CONSIDERED:

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

3844250.1

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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 13/795,933	Filing Date 03/12/2013	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)		
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (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)		
	01/06/2015	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
AMENDMENT	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)		
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
AMENDMENT	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
/RENEE HAWKINS/

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.

AMENDMENTS TO THE CLAIMS

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

1. (Original) A method of monitoring an acoustic environment of a mobile device for voice commands when the mobile device is operating in a low power mode, the method comprising:

receiving acoustic input from the environment of the mobile device while the mobile device is operating in the low power mode;

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode; and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command.

2. (Original) The method of claim 1, further comprising transitioning the mobile device from the low power mode to an active mode when it is detected that the acoustic input includes a voice command.

3. (Original) The method of claim 1, wherein the at least one contextual cue includes at least one of a time the acoustic input was received, motion of the mobile device, location of the mobile device, occurrence of an event on the mobile device, recent activity on the mobile device, a stored sample of the acoustic environment of the mobile device, and a power source of the mobile device.

4. (Original) The method of claim 3, wherein the at least one contextual cue includes the time the acoustic input was received, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on the time the acoustic input was received.

5. (Original) The method of claim 3, wherein the at least one contextual cue includes recent activity on the mobile device, the method further comprising influencing evaluation of at least one

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of the plurality of processing stages based on at least one of how recently the user activated the mobile device, how recently the user issued a voice command and how recently the user performed at least one action on the mobile device.

6. (Original) The method of claim 3, wherein the at least one contextual cue includes an occurrence of an event on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on whether the acoustic input is received proximate in time with the occurrence of the event.

7. (Original) The method of claim 3, wherein the at least one contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on an assessment of whether the user moved the mobile device proximate in time with receiving the acoustic input based, at least in part, on the input from the accelerometer.

8. (Original) The method of claim 3, wherein the at least one contextual cue includes the location of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on determining whether the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device.

9. (Original) The method of claim 3, wherein the at least one contextual cue includes the power source of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of determining whether the mobile device is being powered using the battery or connected to wall power, and a state of the battery if the mobile device is being powered using the battery.

10. (Original) The method of claim 3, wherein the at least one contextual cue includes the sample of the acoustic environment obtained by the mobile device by storing acoustic input previously received by the mobile device and determined not to include a voice command, the

method further comprising subtracting the sample of the acoustic environment from the acoustic input.

11. (Original) The method of claim 1, wherein a sequence of performing the plurality of processing stages is determined, at least in part, by the at least one contextual cue.

12. (Original) The method of claim 1, wherein the mobile device includes a primary processor and a secondary processor, and wherein at least one first processing stage of the plurality of processing stages is performed by the secondary processor prior to engaging the primary processor to process the acoustic input.

13. (Original) The method of claim 12, wherein at least one second processing stage of the plurality of processing stages is performed by the primary processor only after the at least one first processing stage is performed and neither concludes that the acoustic input includes a voice command nor concludes that the acoustic input is the result of spurious acoustic activity.

14. (Currently amended) The method of claim 12, wherein performing the at least one first processing stage includes performing at least one voice activity detection processing stage including performing at least one of spectral analysis on the acoustic input to evaluate whether [[the]] a spectrum of the acoustic input is indicative of voice activity, periodicity analysis to evaluate whether [[the]] signal periodicity of the acoustic input is indicative of voice activity, and phone loop analysis to evaluate whether the acoustic input includes speech.

15. (Original) The method of claim 12, wherein performing the at least one first processing stage comprises performing limited vocabulary automatic speech recognition on the acoustic input to detect whether the acoustic input includes an explicit voice trigger.

16. (Original) The method of claim 12, wherein performing the at least one second processing stage comprises performing at least one speech processing stage including at least one of automatic

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speech recognition on the acoustic input and at least one natural language processing stage to understand the meaning of the voice command.

17. (Original) The method of claim 1, wherein the mobile device is capable of connecting to at least one server via a network, the method further comprising transmitting at least a portion of the acoustic information to the at least one server via the network for processing by the at least one server.

18. (Original) The method of claim 1, further comprising performing one or more default actions when a specific task could not be ascertained from the acoustic input.

19. (Currently amended) At least one non-transitory computer readable medium encoded with instructions that, when executed on at least one processor, perform a method of monitoring an acoustic environment of a mobile device to receive acoustic input from the environment of the mobile device while the mobile device is operating in a low power mode, the method comprising:

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode; and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command.

20. (Original) A mobile device comprising:

at least one input to receive acoustic input from an environment of the mobile device while the mobile device is operating in a low power mode;

at least one processor configured to:

detect whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode; and

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use at least one contextual cue to assist in detecting whether the acoustic input includes a voice command.

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Docket No.: N0484.71090US01
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	William F. Ganong, III
Application No.:	13/795,933
Confirmation No.:	2321
Filed:	March 12, 2013
For:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
Examiner:	H. C. Ho
Art Unit:	2644

Certificate of Electronic Filing Under 37 CFR 1.8
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: January 6, 2015 Electronic Signature: /Trish McDonald/

AMENDMENT IN RESPONSE TO NON-FINAL OFFICE ACTION UNDER 37 C.F.R. 1.111

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

Dear Sir or Madam:

INTRODUCTORY COMMENTS

In response to the Non-Final Office Action October 6, 2014, please amend the above-identified U.S. patent application as follows:

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

Remarks/Arguments begin on page 7 of this paper.

REMARKS

In response to the Office Action dated October 6, 2014, the Assignee of the present application (Nuance Communications, Inc.) respectfully requests reconsideration. Claims 1-20 were previously pending in this application. By this amendment, claims 14 and 19 are amended. No claims are added or canceled. As a result, claims 1-20 are currently pending for examination, with claims 1, 19, and 20 being independent. No new matter is added.

Rejection Under 35 U.S.C. §101

The Office Action rejects claim 19 under 35 U.S.C. §101 for purportedly being directed to non-statutory subject matter by reciting a "computer readable medium" that does not necessarily exclude "the transitory medium." Although the Assignee does not agree with this rejection, claim 19 is amended to recite "[a]t least one ***non-transitory*** computer readable medium" in order to advance prosecution (emphasis added). Accordingly, withdrawal of the rejection of claim 19 under 35 U.S.C. §101 is respectfully requested.

Rejections Under 35 U.S.C. §102

The Office Action rejects claims 1-6, 9-11, and 18-20 under pre-AIA 35 U.S.C. §102(e) as purportedly being anticipated by Hung et al. (U.S. Patent Application Publication No. 2014/0012573). The Assignee respectfully requests reconsideration.

Discussion of Hung

Hung describes a signal processing apparatus including a voice activity detection (VAD) unit integrated with a speech recognition system (Title; Abstract). The apparatus of Hung has a "second application" in which the VAD unit detects whether an audio signal is a voice signal and generates a VAD result ([0036-0039]). If the audio signal is a voice signal, the VAD unit controls the speech recognition system to determine whether the voice signal carries a predetermined command ([0040-0043]). If the voice signal carries the predetermined command, the apparatus performs the operation corresponding to the predetermined command (id.).

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Overview of Some Embodiments[1]

The inventors recognized the importance of generally optimizing the false positive and false negative rates of a mobile device in detecting when acoustic input includes a voice command and that conventional voice activity detection (VAD) techniques alone are typically insufficient to achieve acceptable levels of accuracy in the variety of environments in which a mobile device is utilized. (Paragraphs [0035], [0036], [0052]). As a result, conventional VAD techniques are either overly inclusive resulting in excessive false positive rates that unnecessarily drain battery power and annoy the user by responding or waking the device unnecessarily, or on the other hand, are under inclusive resulting in excessive false negative rates resulting in the perception that the device is unresponsive. (Paragraphs [0052], [0095]). The inventors appreciated that considering contextual cues may reduce false positive and/or false negative rates, and that considering factors other than the content of received acoustic input itself—when used in conjunction with techniques for evaluating the acoustic input—may improve the accuracy of detecting when a voice command is present in an acoustic signal. (Paragraph [0096]).

It should be appreciated that the foregoing discussion of embodiments is provided merely to assist the Examiner in appreciating various aspects of the invention. However, not all of the description provided above necessarily applies to each of the independent claims pending in the application. Therefore, the Examiner is requested to not rely upon the foregoing summary in interpreting any of the claims or in determining whether they patentably distinguish over the prior art of record, but rather is requested to rely only upon the language of the claims themselves and the arguments specifically related thereto provided below.

Independent Claim 1

In rejecting claim 1, the Office Action (at 5) relies on Hung for purportedly disclosing "using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command," citing to FIG. 3 (especially step 308) and paragraphs 0037 through 0043 of Hung. However, the Office Action fails to identify what in Hung is believed to be a "contextual cue." The cited portions of Hung merely describe using signal processing to detect whether an audio signal is

[1] Citations are to the published application US2014/0274203.

Petitioner Exhibit 1004, Page 356 of 1518

a voice signal and whether the voice signal carries a predetermined command. Hung simply does not use any contextual cue to do so and in fact nowhere discloses or suggests using any information beyond the audio signal itself to detect whether the audio signal includes a voice command. A contextual cue is necessarily something other than the audio signal itself. Indeed, the specification is explicit in this respect, stating that a contextual cue is "information ***other than*** the properties or characteristics of the ***specific acoustic input*** being evaluated as containing a voice command." (Paragraph [0035], emphasis added).

By contrast, Hung performs VAD in the conventional way by processing the audio signal itself and nowhere discloses or suggests "using at least one ***contextual cue*** to assist in detecting whether the acoustic input includes a voice command," as required by claim 1. Therefore, claim 1 patentably distinguishes over Hung and is in allowable condition. Claims 2-18 depend from claim 1 and are allowable for at least the same reasons. In view of the foregoing, the Assignee respectfully requests withdrawal of the rejections of claims 1-18 under 35 U.S.C. §102.

Independent Claim 19

As should be appreciated from the above discussion of claim 1, Hung nowhere discloses or suggests using any information beyond the audio signal itself to detect whether the audio signal includes a voice command, and so Hung does not disclose "using at least one ***contextual cue*** to assist in detecting whether the acoustic input includes a voice command," as required by claim 19. Therefore, claim 19 patentably distinguishes over Hung and is in allowable condition. In view of the foregoing, the Assignee respectfully requests withdrawal of the rejection of claim 19 under 35 U.S.C. §102.

Independent Claim 20

As should be appreciated from the above discussion of claim 1, Hung nowhere discloses or suggests using any information beyond the audio signal itself to detect whether the audio signal includes a voice command, and so Hung does not disclose a mobile device comprising at least one processor configured to "use at least one contextual cue to assist in detecting whether the acoustic input includes a voice command," as required by claim 20. Therefore, claim 20 patentably

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distinguishes over Hung and is in allowable condition. In view of the foregoing, the Assignee respectfully requests withdrawal of the rejection of claim 20 under 35 U.S.C. §102.

Dependent Claims

Though the dependent claims are allowable by virtue of their dependency, the Assignee points out that many of the dependent claims recite specific contextual cues (see, e.g., claims 3-10) for which the Office Action cites paragraphs 0021 through 0023 of Hung as allegedly meeting these limitations. These paragraphs simply do not describe any contextual cues whatsoever, let alone those recited in the claims. The Office Action has not pointed to a single thing in Hung that is believed to be a contextual cue, and if the Examiner believes Hung to disclose using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command, it is respectfully requested that the Examiner specify what in Hung is believed to teach doing so.

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CONCLUSION

In view of the foregoing amendments and remarks, the application is believed to be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes for any reason that the application is not in condition for allowance, he is requested to contact the undersigned to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, the Assignee hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825 under Docket No. N0484.71090US01 from which the undersigned is authorized to draw.

Dated: January 6, 2015

Respectfully submitted,

Electronic signature: /Marc S. Johannes/
Marc S. Johannes
Registration No.: 64,978
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
617.646.8000

Petitioner Exhibit 1004, Page 359 of 1518

DOCKET NO.: N0484.71090US01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	William F. Ganong
Application No.:	13/795,933
Confirmation No.:	2321
Filed:	March 12, 2013
For:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
Examiner:	Huy C. Ho
Art Unit:	2644

CERTIFICATE OF ELECTRONIC FILING UNDER 37 C.F.R. § 1.8

The undersigned hereby certifies that this paper, along with any paper referred to as being attached or enclosed, is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4), on the 6th day of January, 2015.

Electronic Signature: /Trish McDonald/

MAIL STOP AMENDMENT
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

Madam:

Pursuant to the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97 and 1.98, the undersigned requests consideration of this Information Disclosure Statement.

PART I: Compliance with 37 C.F.R. § 1.97

This Information Disclosure Statement has been filed more than three months after the filing date of this application and after the mailing date of a first Office Action, but before the mailing date of any of a Final Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution in this application.

Please charge our Credit Card in the amount of $180.00 covering the fee set forth in 37 C.F.R. § 1.17(p).

PART II: Information Cited

The undersigned hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified PTO/SB/08). The order of presentation of the references should not be construed as an indication of the importance of the references.

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement 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-1449 (modified PTO/SB/08) be signed by the Examiner to evidence that the cited information has been fully considered by the United States 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 undersigned 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 undersigned 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 undersigned 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 statements by the undersigned, the Examiner is urged to form his or her own conclusion regarding the relevance of the cited information.

Petitioner Exhibit 1004, Page 361 of 1518

An early and favorable action is hereby requested.

The Director is hereby authorized to charge any deficiency or credit any overpayment in the fees occasioned by the filing of this Information Disclosure Statement to our Deposit Account No. 23/2825 under Docket No. N0484.71090US01 from which the undersigned is authorized to draw.

Respectfully submitted,

By: /Marc S. Johannes/
Marc S. Johannes, Reg. No. 64,978
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
Telephone: (617) 646-8000

Docket No.: N0484.71090US01
Date: January 6, 2015
xNDDx

LISTING OF CLAIMS

1. (Original) A method of monitoring an acoustic environment of a mobile device for voice commands when the mobile device is operating in a low power mode, the method comprising:

receiving acoustic input from the environment of the mobile device while the mobile device is operating in the low power mode;

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode; and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command.

2. (Original) The method of claim 1, further comprising transitioning the mobile device from the low power mode to an active mode when it is detected that the acoustic input includes a voice command.

3. (Original) The method of claim 1, wherein the at least one contextual cue includes at least one of a time the acoustic input was received, motion of the mobile device, location of the mobile device, occurrence of an event on the mobile device, recent activity on the mobile device, a stored sample of the acoustic environment of the mobile device, and a power source of the mobile device.

4. (Original) The method of claim 3, wherein the at least one contextual cue includes the time the acoustic input was received, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on the time the acoustic input was received.

5. (Original) The method of claim 3, wherein the at least one contextual cue includes recent activity on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of how recently the user activated the mobile device, how recently the user issued a voice command and how recently the user performed at least one action on the mobile device.

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6. (Original) The method of claim 3, wherein the at least one contextual cue includes an occurrence of an event on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on whether the acoustic input is received proximate in time with the occurrence of the event.

7. (Original) The method of claim 3, wherein the at least one contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on an assessment of whether the user moved the mobile device proximate in time with receiving the acoustic input based, at least in part, on the input from the accelerometer.

8. (Original) The method of claim 3, wherein the at least one contextual cue includes the location of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on determining whether the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device.

9. (Original) The method of claim 3, wherein the at least one contextual cue includes the power source of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of determining whether the mobile device is being powered using the battery or connected to wall power, and a state of the battery if the mobile device is being powered using the battery.

10. (Original) The method of claim 3, wherein the at least one contextual cue includes the sample of the acoustic environment obtained by the mobile device by storing acoustic input previously received by the mobile device and determined not to include a voice command, the method further comprising subtracting the sample of the acoustic environment from the acoustic input.

Petitioner Exhibit 1004, Page 364 of 1518

11. (Original) The method of claim 1, wherein a sequence of performing the plurality of processing stages is determined, at least in part, by the at least one contextual cue.

12. (Original) The method of claim 1, wherein the mobile device includes a primary processor and a secondary processor, and wherein at least one first processing stage of the plurality of processing stages is performed by the secondary processor prior to engaging the primary processor to process the acoustic input.

13. (Original) The method of claim 12, wherein at least one second processing stage of the plurality of processing stages is performed by the primary processor only after the at least one first processing stage is performed and neither concludes that the acoustic input includes a voice command nor concludes that the acoustic input is the result of spurious acoustic activity.

14. (Previously presented) The method of claim 12, wherein performing the at least one first processing stage includes performing at least one voice activity detection processing stage including performing at least one of spectral analysis on the acoustic input to evaluate whether a spectrum of the acoustic input is indicative of voice activity, periodicity analysis to evaluate whether signal periodicity of the acoustic input is indicative of voice activity, and phone loop analysis to evaluate whether the acoustic input includes speech.

15. (Original) The method of claim 12, wherein performing the at least one first processing stage comprises performing limited vocabulary automatic speech recognition on the acoustic input to detect whether the acoustic input includes an explicit voice trigger.

16. (Original) The method of claim 12, wherein performing the at least one second processing stage comprises performing at least one speech processing stage including at least one of automatic speech recognition on the acoustic input and at least one natural language processing stage to understand the meaning of the voice command.

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17. (Original) The method of claim 1, wherein the mobile device is capable of connecting to at least one server via a network, the method further comprising transmitting at least a portion of the acoustic information to the at least one server via the network for processing by the at least one server.

18. (Original) The method of claim 1, further comprising performing one or more default actions when a specific task could not be ascertained from the acoustic input.

19. (Previously presented) At least one non-transitory computer readable medium encoded with instructions that, when executed on at least one processor, perform a method of monitoring an acoustic environment of a mobile device to receive acoustic input from the environment of the mobile device while the mobile device is operating in a low power mode, the method comprising:

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode; and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command.

20. (Original) A mobile device comprising:

at least one input to receive acoustic input from an environment of the mobile device while the mobile device is operating in a low power mode;

at least one processor configured to:

detect whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode; and

use at least one contextual cue to assist in detecting whether the acoustic input includes a voice command.

Petitioner Exhibit 1004, Page 366 of 1518

Docket No.: N0484.71090US01
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	William F. Ganong, III
Application No.:	13/795,933
Confirmation No.:	2321
Filed:	March 12, 2013
For:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
Examiner:	H. C. Ho
Art Unit:	2644

Certificate of Electronic Filing Under 37 CFR 1.8
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: January 23, 2015 Electronic Signature for Scott R. Whittemore: /Scott R. Whittemore/

SUPPLEMENTAL REPLY UNDER 37 CFR § 1.111

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

Dear Sir:

INTRODUCTORY COMMENTS

Prior to examination on the merits, please consider the following remarks:

A **Listing of Claims** begins on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

Doc Code: TRAN.LET
Document Description: Transmittal Letter

USED IN LIEU OF PTO/SB/21 (07-09)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission	3

Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong, III
Art Unit	2644
Examiner Name	H. C. Ho
Attorney Docket Number	N0484.71090US01

ENCLOSURES (*Check all that apply*)

- [ ] Fee Transmittal Form
  - [ ] Fee Attached
- [x] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [ ] Other Enclosure(s) (please Identify below):

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature	/Marc S. Johannes/		
Printed name	Marc S. Johannes		
Date	January 23, 2015	Reg. No.	64,978

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: January 23, 2015 Electronic Signature for Scott R. Whittemore: /Scott R. Whittemore/

3881017.1

REMARKS

On January 6, 2015, the Assignee of the present application (Nuance Communications, Inc.) responded to the Office Action issued on October 6, 2015. Subsequently, it was noticed that the objection to the specification was unintentionally omitted from the response. Assignee's representatives contacted the Examiner to point out this omission and the Examiner requested, in a voice mail received on January 12, 2015, that a supplemental reply be submitted responding to the objection to make it of record. As requested, the Assignee submits this supplemental reply. No new matter is added.

Objections to the Specification

The Office Action notes a possible typographical error in the original specification relating to the numbering of the drawings in the specification. Assignee respectfully notes that the Response to Notice to File Corrected Application Papers filed on June 5, 2013 resolves these issues. Accordingly, it is respectfully requested that the objection be withdrawn.

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CONCLUSION

In view of the foregoing remarks, the application is believed to be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes for any reason that the application is not in condition for allowance, he is requested to contact the undersigned to discuss any outstanding issues relating to the allowability of the application.

Assignee believes no fee is due with this response. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825 under Docket No. N0484.71090US01 from which the undersigned is authorized to draw.

Dated: January 23, 2015

Respectfully submitted,

By /Marc S. Johannes/
Marc S. Johannes
Registration No.: 64,978
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
617.646.8000

Petitioner Exhibit 1004, Page 370 of 1518

Electronic Acknowledgement Receipt

EFS ID:	21292669
Application Number:	13795933
International Application Number:	
Confirmation Number:	2321
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Customer Number:	91337
Filer:	Marc S. Johannes/Scott Whittemore
Filer Authorized By:	Marc S. Johannes
Attorney Docket Number:	N0484.71090US01
Receipt Date:	23-JAN-2015
Filing Date:	12-MAR-2013
Time Stamp:	14:30:26
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	Miscellaneous Incoming Letter	N048471090US01-TRN-MSJ.pdf	24284 5984050db1cac54daaad7c5e03ea043946cfbd1e4	no	1

Warnings:	
Information:	

2		N048471090US01-SUPRESP-MSJ.pdf	38628 0d5958800db7bd8ab2af5f86e56d14e3e140c2d9	yes	7

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Supplemental Response or Supplemental Amendment	1	1
Claims	2	5
Applicant Arguments/Remarks Made in an Amendment	6	7

Warnings:

Information:

Total Files Size (in bytes):	62912

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

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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

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

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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 13/795,933	Filing Date 03/12/2013	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

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

AMENDMENT	02/03/2015	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) 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

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) 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
/TIA BENTLEY/

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.

Electronic Acknowledgement Receipt

EFS ID:	21659942
Application Number:	13795933
International Application Number:	
Confirmation Number:	2321
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Customer Number:	91337
Filer:	Thomas Stephen Chlebeck/Sara Sikorski
Filer Authorized By:	Thomas Stephen Chlebeck
Attorney Docket Number:	N0484.71090US01
Receipt Date:	03-MAR-2015
Filing Date:	12-MAR-2013
Time Stamp:	18:36:16
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$180
RAM confirmation Number	5577
Deposit Account	232825
Authorized User	CHLEBECK, THOMAS S.

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 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	N048471090US01-TRN-TSC.pdf	133353 dd16f030f1610f3138afbc12736bb438d0478ca6	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	N048471090US01-FEE-TSC.pdf	199514 60166c19526b25e03375ccc9cf9b12b2d8446ce6	no	1
Warnings:					
Information:					
3		N048471090US01-IDS-TSC.pdf	398566 f7531c01ccaa7d47883d1602d2de85664dc841d9	yes	4

Multipart Description/PDF files in .zip description

Document Description	Start	End
Transmittal Letter	1	3
Information Disclosure Statement (IDS) Form (SB08)	4	4

Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	30843 9a6d9a58755e8d66eab8616e78e29f566793bf4a	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	762276		

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.

DOCKET NO.: N0484.71090US01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	William F. Ganong
Application No.:	13/795,933
Confirmation No.:	2321
Filed:	March 12, 2013
For:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
Examiner:	Huy C. Ho
Art Unit:	2644

CERTIFICATE OF ELECTRONIC FILING UNDER 37 C.F.R. § 1.8

The undersigned hereby certifies that this paper, along with any paper referred to as being attached or enclosed, is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4), on the 25th day of March, 2015.

Sara Sikorski

MAIL STOP AMENDMENT
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

Madam:

Pursuant to the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97 and 1.98, the undersigned requests consideration of this Information Disclosure Statement.

PART I: Compliance with 37 C.F.R. § 1.97

This Information Disclosure Statement has been filed more than three months after the filing date of this application and after the mailing date of a first Office Action, but before the mailing date of any of a Final Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution in this application.

Please charge our Credit Card in the amount of $180.00 covering the fee set forth in 37 C.F.R. § 1.17(p).

Petitioner Exhibit 1004, Page 377 of 1518

PART II: Information Cited

The undersigned hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified PTO/SB/08). The order of presentation of the references should not be construed as an indication of the importance of the references.

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement 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-1449 (modified PTO/SB/08) be signed by the Examiner to evidence that the cited information has been fully considered by the United States 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 undersigned 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 undersigned 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 undersigned 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 statements by the undersigned, the Examiner is urged to form his or her own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Petitioner Exhibit 1004, Page 378 of 1518

The Director is hereby authorized to charge any deficiency or credit any overpayment in the fees occasioned by the filing of this Information Disclosure Statement to our Deposit Account No. 23/2825 under Docket No. N0484.71090US01 from which the undersigned is authorized to draw.

Respectfully submitted,

By: Tom Chlebeck

Thomas Chlebeck, Reg. No. 70,616
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
Telephone: (617) 646-8000

Docket No.: N0484.71090US01
Date: March 3, 2015
xNDDx

Doc Code: TRAN.LET
Document Description: Transmittal Letter

USED IN LIEU OF PTO/SB/21 (07-09)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong, III
Art Unit	2644
Examiner Name	H. C. Ho
Total Number of Pages in This Submission	
Attorney Docket Number	N0484.71090US01

ENCLOSURES (*Check all that apply*)

- [x] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [x] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) (please Identify below):

  Form PTO-1449

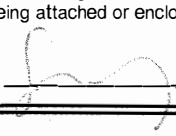
Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature			
Printed name	Thomas Chlebeck		
Date	March 3, 2015	Reg. No.	70,616

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: March 3, 2015 Signature:  (Thomas Schlebeck)

3930450.1

Electronic Patent Application Fee Transmittal

Application Number:	13795933
Filing Date:	12-Mar-2013
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Filer:	Thomas Stephen Chlebeck/Sara Sikorski
Attorney Docket Number:	N0484.71090US01

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($)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
		Total in USD ($)		**180**

FORM PTO-1449/A and B (modified PTO/SB/08)	APPLICATION NO.: 13/795,933	ATTY. DOCKET NO.: N0484.71090US01
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 12, 2013	CONFIRMATION NO.: 2321
	FIRST NAMED INVENTOR: William F. Ganong	
Sheet 1 of 1	GROUP ART UNIT: 2644	EXAMINER: Huy C. Ho

U.S. PATENT DOCUMENTS

Examiner's Initials #	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
		2010-0124896	A1	Kumar	05-20-2010

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			

OTHER ART – NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)

EXAMINER:	DATE CONSIDERED:

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

*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. __ , filed __ , and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE – No copies of U.S. patents, published U.S. patent applications, or pending, unpublished patent applications stored in the USPTO's Image File Wrapper (IFW) system, are included. See 37 CFR § 1.98 and 1287OG163. Copies of all other patent(s), publication(s), unpublished, pending U.S. patent applications, or other information listed are provided as required by 37 CFR § 1.98 unless 1) such copies were provided in an IDS in an earlier application that complies with 37 CFR § 1.98, and 2) the earlier application is relied upon for an earlier filing date under 35 U.S.C. § 120.]

PTO/SB/17 (03-13)
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FEE TRANSMITTAL

	Complete if known
	Application Number: 13/795,933-Conf. #2321
	Filing Date: March 12, 2013
☐ Applicant asserts small entity status. See 37 CFR 1.27.	First Named Inventor: William F. Ganong, III
☐ Applicant certifies micro entity status. See 37 CFR 1.29. Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.	Examiner Name: H. C. Ho
	Art Unit: 2644
TOTAL AMOUNT OF PAYMENT ($) 180.00	Practitioner Docket No.: N0484.71090US01

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☐ Deposit Account Deposit Account Number: 23/2825 Deposit Account Name: Wolf, Greenfield & Sacks, P.C.

For the above-identified deposit account, the Director is hereby authorized to (check all that apply):

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☐ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayment of fee(s)

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES (U = undiscounted fee; S = small entity fee; M = micro entity fee)

	FILING FEES			SEARCH FEES			EXAMINATION FEES			
Application Type	**U ($)**	**S ($)**	**M ($)**	**U ($)**	**S ($)**	**M ($)**	**U ($)**	**S ($)**	**M ($)**	**Fees Paid ($)**
Utility	280	140*	70	600	300	150	720	360	180	
Design	180	90	45	120	60	30	460	230	115	
Plant	180	90	45	380	190	95	580	290	145	
Reissue	280	140	70	600	300	150	2,160	1,080	540	
Provisional	260	130	65	0	0	0	0	0	0	

* The $140 small entity status filing fee for a utility application is further reduced to $70 for a small entity status applicant who files the application via EFS-Web.

2. EXCESS CLAIM FEES

Fee Description	**Undiscounted Fee ($)**	**Small Entity Fee ($)**	**Micro Entity Fee ($)**
Each claim over 20 (including Reissues)	80	40	20
Each independent claim over 3 (including Reissues)	420	210	105
Multiple dependent claims	780	390	195

Total Claims	**Extra Claims**	**Fee ($)**	**Fee Paid ($)**	**Multiple Dependent Claims**	
				Fee ($)	**Fee Paid ($)**
_____ - 20 or HP =	_____ x	_____ =	_____	_____	_____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	**Extra Claims**	**Fee ($)**	**Fee Paid ($)**
_____ - 3 or HP =	_____ x	_____ =	_____

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $400 ($200 for small entity) ($100 for micro entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	**Extra Sheets**	**Number of each additional 50 or fraction thereof**	**Fee ($)**	**Fee Paid ($)**
_____ - 100 =	_____ /50 =	_____ (round **up** to a whole number) x	_____ =	

4. OTHER FEE(S)

	Fees Paid ($)
Non-English specification, $130 fee (no small or micro entity discount)	
Non-electronic filing fee under 37 CFR 1.16(t) for a utility application, $400 fee ($200 small or micro entity)	
Other (e.g., late filing surcharge): 1806 Submission of an Information Disclosure Statement	180.00

SUBMITTED BY

Signature	Tom Chlebeck	Registration No. (Attorney/Agent)	70,616	Telephone	617.646.8000
Name (Print/Type)	Thomas Chlebeck			Date	March 3, 2015

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: March 3, 2015 Signature: _____ (Sara S. Hugh)

3930449.1

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BIB DATA SHEET

CONFIRMATION NO. 2321

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/795,933	03/12/2013	455	2644	N0484.71090US01

APPLICANTS

Nuance Communications, Inc., Burlington, MA, Assignee (with 37 CFR 1.172 Interest);

INVENTORS

William F. Ganong III, Brookline, MA;
Paul Adrian Van Mulbregt, Wayland, MA;
Vladimir Sejnoha, Lexington, MA;
Glen Wilson, Maynard, MA;

**** CONTINUING DATA **************************

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

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
04/02/2013

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /HUY C HO/ Examiner's Signature	☐ Met after Allowance HH Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		MA	10	20	3

ADDRESS

Nuance Communications, Inc.
c/o Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, MA 02210-2206
UNITED STATES

TITLE

METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND

FILING FEE RECEIVED		
1740	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

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/795,933	03/12/2013	William F. Ganong III	N0484.71090US01	2321

91337 7590 04/17/2015

Nuance Communications, Inc.
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EXAMINER
HO, HUY C

ART UNIT	PAPER NUMBER
2644	

NOTIFICATION DATE	DELIVERY MODE
04/17/2015	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):

Patents_eOfficeAction@wolfgreenfield.com
N0484_eOfficeAction@WolfGreenfield.com
IP.Inbox@nuance.com

Office Action Summary	Application No. 13/795,933	Applicant(s) GANONG ET AL.	
	Examiner HUY C. HO	Art Unit 2644	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 *01/23/2015*.

☐ 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 *03/12/2013* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

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

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

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

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date ____.

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

4) ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 01/06/2015 have been fully considered but they are not persuasive for the following reasons.

With respect to the arguments that, Hung does not use any "contextual cue" to assist in detecting whether the acoustic input includes a voice command, the examiner respectfully disagrees because the recited limitation "contextual cue" at its broadest reasonable interpretation, e.g., some hint that helps to detect a voice command in the acoustic input. Hung teaches the speech recognition system performs speech recognition on an audio signal recorded by a signal collection unit. The speech recognition system is configured to determine whether the audio signal carries the predetermined command information (Hung, Figure 2, Box 214, Paragraph [32]). In other words, the speech recognition system is clearly configured to search for and to detect the predetermined command information carried in the audio signal. The predetermined information in audio signal is the hint for the speech recognition system to look for and to determine that the audio signal is carrying a speech command.

Therefore, Hung teaches and discloses the argued features "contextual cue".

Therefore, the argued features were written such that they read upon the cited reference Hung.

Claim Rejections - 35 USC § 102

2. 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 –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 9-11 and 18-20 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Hung et al. (U.S. Pub. No. 2014/0012573).

Regarding claim 1, (Original) Hung teaches a method of monitoring an acoustic environment of a mobile device for voice commands when the mobile device is operating in a low power mode (*Hung, the Abstract*), the method comprising:

receiving acoustic input from the environment of the mobile device while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24]);*

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24]);* and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information).*

Regarding claim 19, (Currently Amended) Hung teaches at least one non-transitory computer readable medium encoded with

instructions that, when executed on at least one processor, perform a method of monitoring an acoustic environment of a mobile device to receive acoustic input from the environment of the mobile device while the mobile device is operating in a low power mode (*Hung, the Abstract, Paragraph [4])*, the method comprising:

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24])*; and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information).*

Regarding claim 20, (Original) Hung teaches a mobile device (*Hung, the Abstract*), comprising:

at least one input to receive acoustic input from an environment of the mobile device while the mobile device is operating in a low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24])*;

at least one processor configured to:

detect whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24]*); and

use at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information).*

Regarding claim 2, (Original) Hung teaches the method of claim 1, further comprising transitioning the mobile device from the low power mode to an active mode when it is detected that the acoustic input includes a voice command (*Hung, Figure 1, Step 212).*

Regarding claim 3, (Original) The method of claim 1, wherein the at least one contextual cue includes at least one of a time the acoustic input was received, motion of the mobile device, location of the mobile device, occurrence of an event on the mobile device, recent activity on the mobile device, a stored sample of the acoustic environment of the mobile device,

and a power source of the mobile device (*Hung, Figure 1, Paragraph(s) [22]-[23])*.

Regarding claim 4, (Original) Hung teaches the method of claim 3, wherein the at least one contextual cue includes the time the acoustic input was received, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on the time the acoustic input was received (*Hung, Figure 1, Paragraph(s) [22]-[23])*.

Regarding claim 5, (Original) Hung teaches the method of claim 3, wherein the at least one contextual cue includes recent activity on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of how recently the user activated the mobile device, how recently the user issued a voice command and how recently the user performed at least one action on the mobile device (*Hung, Paragraph(s) [21]-[23])*.

Regarding claim 6, (Original) Hung teaches the method of claim 3, wherein the at least one contextual cue includes an occurrence of an event on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on whether the acoustic input is received proximate in time with the occurrence of the event (*Hung, Paragraph(s) [21]-[23])*.

Regarding claim 9, (Original) Hung teaches the method of claim 3, wherein the at least one contextual cue includes the power source of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of determining whether the mobile device is being powered using the battery or connected to wall power, and a state of the battery if the mobile device is being powered using the battery (*Hung, Paragraph(s) [4]-[6]*).

Regarding claim 10, (Original) Hung teaches the method of claim 3, wherein the at least one contextual cue includes the sample of the acoustic environment obtained by the mobile device by storing acoustic input previously received by the mobile device and determined not to include a voice command, the method further comprising subtracting the sample of the acoustic environment from the acoustic input (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 11, (Original) Hung teaches the method of claim 1, wherein a sequence of performing the plurality of processing stages is determined, at least in part, by the at least one contextual cue (*Hung, Paragraph(s) [21]-[23]*).

Regarding claim 18, (Original) Hung teaches the method of claim 1, further comprising performing one or more default

actions when a specific task could not be ascertained from the acoustic input (*Hung, Paragraph(s) [21]-[23]*).

Claim Rejections - 35 USC § 103

4. 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 negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of pre-AIA 35 U.S.C. 103(c) and potential pre-AIA 35 U.S.C. 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. 103(a).

6. Claim 7 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in view of Oh et al. (U.S. Pub. No. 2010/0009719).

Regarding claim 7, (Original) The method of claim 3, wherein the at least one contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on an assessment of whether the user moved the mobile device proximate in time with receiving the acoustic input based, at least in part, on the input from the accelerometer.

Hung does not teach "the contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device".

Oh teaches "the contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device" (*Oh, Paragraph [55], acceleration/deceleration of a mobile terminal).*

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Oh that a mobile terminal includes a sensing unit to detect a current state of the mobile terminal such as acceleration or deceleration of the

mobile terminal thus improving more optional features for recognizing a user's voice command of a mobile terminal.

7. Claim 8 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in view of Schrager (U.S. Patent No. 8,620,389).

Regarding claim 8, (Original) The method of claim 3, wherein the at least one contextual cue includes the location of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on determining whether the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device.

Hung does not teach "the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device".

Schrager teaches "the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device" (*Schrager, Col. 14 lines 33-40, a mobile device can be located in an automobile*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Schrager a

communications device may recognize a user's spoken commands when the user travels carrying the phone by hand or in a bag or leave the communications device handsfree in an automobile thus providing the user convenience with advanced automatic voice control feature of the communications device thus attracting potential customers with the high-tech advanced product features and increasing the product sales volume.

8. Claims 12-16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in view of Newman (U.S. Pub. No. 2013/0289994).

Regarding claim 12, (Original) The method of claim 1, wherein the mobile device includes a primary processor and a secondary processor, and wherein at least one first processing stage of the plurality of processing stages is performed by the secondary processor prior to engaging the primary processor to process the acoustic input.

Hung does not teach "the mobile device includes a primary processor and a secondary processor".

Newman teaches "the mobile device includes a primary processor and a secondary processor" (*Newman, the Abstract, Paragraph [8]).*

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Newman the technique used in an mobile communication device including two processing controllers, i.e., a main CPU controller and a secondary DSP controller, wherein the DSP controller is used for picking up voice and speech recognition at a lower power consumption to conserve battery power for the main CPU controller when the main controller is in inactive mode. The two processing controllers are configured to improve battery energy conservation for a mobile communication device during voice and speech recognition.

Regarding claim 13, Hung, as modified by Newman, teaches the method of claim 12, wherein at least one second processing stage of the plurality of processing stages is performed by the primary processor only after the at least one first processing stage is performed and neither concludes that the acoustic input includes a voice command nor concludes that the acoustic input is the result of spurious acoustic activity (*Hung, Figure 3, Paragraph(s) [37]-[43])*.

Regarding claim 14, (Currently Amended) Hung, as modified by Newman, teaches the method of claim 12, wherein performing the at least one first processing stage includes performing at

least one voice activity detection processing stage including performing at least one of spectral analysis on the acoustic input to evaluate whether a spectrum of the acoustic input is indicative of voice activity, periodicity analysis to evaluate whether signal periodicity of the acoustic input is indicative of voice activity, and phone loop analysis to evaluate whether the acoustic input includes speech (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 15, (Original) Hung, as modified by Newman, teaches the method of claim 12, wherein performing the at least one first processing stage comprises performing limited vocabulary automatic speech recognition on the acoustic input to detect whether the acoustic input includes an explicit voice trigger (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308*).

Regarding claim 16, (Original) Hung, as modified by Newman, teaches the method of claim 12, wherein performing the at least one second processing stage comprises performing at least one speech processing stage including at least one of automatic speech recognition on the acoustic input and at least one natural language processing stage to understand the meaning of the voice command (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

9. Claim 17 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in view of Mozer et al. (U.S. Pub. No. 2013/0080171).

Regarding claim 17, (Original) The method of claim 1, wherein the mobile device is capable of connecting to at least one server via a network, the method further comprising transmitting at least a portion of the acoustic information to the at least one server via the network for processing by the at least one server.

Hung does not teach "the mobile device is capable of connecting to at least one server via a network".

Mozer teaches "the mobile device is capable of connecting to at least one server via a network" (*Mozer, Paragraph [24]).*

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Mozer a mobile device recognizes an acoustic input signal via recognizers, i.e., an always-on recognizer 102 and a second recognizer 104 (*Mozer, Figure 1B, recognizer 102)*, wherein the always-on recognizer 102 may communicate with the second recognizer 104 over a network (*Mozer, Figure 1B, Paragraph [24])*, and the second recognizer 104 may be located in a server. The second

recognizer is triggered for recognizing the acoustic input signal based on a selection of a classification.

Conclusion

THIS ACTION IS MADE FINAL. 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 mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUY C. HO whose telephone number is (571)270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. 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.

/HUY C HO/

Primary Examiner, Art Unit 2644

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13795933	GANONG ET AL.
	Examiner	Art Unit
	HUY C HO	2644

✓	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	09/25/2014	04/12/2015							
	1	✓	✓							
	2	✓	✓							
	3	✓	✓							
	4	✓	✓							
	5	✓	✓							
	6	✓	✓							
	7	✓	✓							
	8	✓	✓							
	9	✓	✓							
	10	✓	✓							
	11	✓	✓							
	12	✓	✓							
	13	✓	✓							
	14	✓	✓							
	15	✓	✓							
	16	✓	✓							
	17	✓	✓							
	18	✓	✓							
	19	✓	✓							
	20	✓	✓							

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	84	("20100185448" | "20110054899" | "20130080167" | "20130080171" | "20130289994" | "20130339028" | "20140012573" | "20140012586" | "5428707" | "5774859" | "5802305" | "5983186" | "6070140" | "6092043" | "6397186" | "6408396" | "6411926" | "6449496" | "6594630" | "6756700" | "6941265" | "6965786" | "7114090" | "7567827" | "7720683" | "7774204" | "8056070" | "8181046" | "8190420" | "8285545" | "8666751").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/11 15:08
S2	1	"US 20140274203"	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2014/09/25 13:39
S3	6	"8094838"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/25 13:54
S4	6	"8094838"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/25 13:54
S5	6	"8094838"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/25 14:38
S6	36	(jacoby near2 keith).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/25 14:39
S7	3	"US 20080172221"	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2014/09/25 14:39
S8	3	"20140012573"	US-PGPUB; USPAT;	OR	OFF	2014/09/29 17:24

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S9	5	"20030040339"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 19:50
S10	5	"20030040339"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 19:50
S11	903	455/563.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:36
S12	239	S11 and (voice near3 command)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:37
S13	162	S12 and (GPS location)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:38
S14	18	S13 and (acceleration accelerometer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:39
S15	14	S14 and (@ad<"20130312" @rlad<"20130312")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:39
S16	4	S15 and (vehicle vehicular automobile car)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:40

S17	10166	379/88.01-88.2.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:23
S18	1003	S17 and (voice near3 command)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:23
S19	367	S18 and (voice near3 recogniz$5)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:24
S20	7	S19 and (acceleration accelerometer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:24
S21	253	S19 and (GPS location)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:24
S22	6	S15 and (vehicle vehicular automobile car home office)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:25
S23	211	S21 and (vehicle vehicular automobile car home office)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:25
S24	211	S23 and (@ad<"20130312" @rlad<"20130312")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:25
S25	13	S24 and (low$2 near3 (power energy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2014/09/29 21:26

			DERWENT; IBM_TDB			
S26	2	"20130289994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 23:54
S27	2	2013/0080171	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 23:54
S28	55	((William) near2 (Ganong)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/29 23:55
S29	5	((Paul) near2 ("Van Mulbregt")).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/29 23:55
S30	31	((Vladimir) near2 (Sejnoha)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/29 23:55
S31	25	((Glen) near2 (Wilson)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/29 23:55
S32	2	"US 20140274203"	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2015/04/12 23:29

4/13/2015 11:15:34 AM
C:\Users\hho3\Documents\EAST\Workspaces\13795933.wsp

FORM PTO-1449/A and B (modified PTO/SB/08)	APPLICATION NO.: 13/795,933	ATTY. DOCKET NO.: N0484.71090US01
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 12, 2013	CONFIRMATION NO.: 2321
	FIRST NAMED INVENTOR: William F. Ganong	
Sheet 1 of 1	GROUP ART UNIT: 2644	EXAMINER: Huy C. Ho

U.S. PATENT DOCUMENTS

Examiner's Initials #	Cite No.	U.S. Patent Document Number	U.S. Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		2010-0124896	A1	Kumar	05-20-2010

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No.	Foreign Patent Document Office/ Country	Foreign Patent Document Number	Foreign Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)

OTHER ART – NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)

EXAMINER:	DATE CONSIDERED:
/Huy Ho/ (04/12/2015)	

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

*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. __ , filed __ , and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE – No copies of U.S. patents, published U.S. patent applications, or pending, unpublished patent applications stored in the USPTO's Image File Wrapper (IFW) system, are included. See 37 CFR § 1.98 and 1287OG163. Copies of all other patent(s), publication(s), unpublished, pending U.S. patent applications, or other information listed are provided as required by 37 CFR § 1.98 unless 1) such copies were provided in an IDS in an earlier application that complies with 37 CFR § 1.98, and 2) the earlier application is relied upon for an earlier filing date under 35 U.S.C. § 120.]

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /H.H

FORM PTO-1449/A and B (modified PTO/SB/08)	APPLICATION NO.: 13/795,933	ATTY. DOCKET NO.: N0484.71090US01
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 12, 2013	CONFIRMATION NO.: 2321
	FIRST NAMED INVENTOR: William F. Ganong	
Sheet 1 of 1	GROUP ART UNIT: 2644	EXAMINER: Huy C. Ho

U.S. PATENT DOCUMENTS

Examiner's Initials #	Cite No.	U.S. Patent Document Number	U.S. Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		8,548,176		Bright	10-01-2013
		2003-0040339		Chang	02-27-2003
		2010-0289994		Nonaka	11-18-2010
		2014-0274211		Sejnoha et al.	09-18-2014
		2014-0278435		Ganong, III et al.	09-18-2014

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No.	Foreign Patent Document Office/ Country	Foreign Patent Document Number	Foreign Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)

OTHER ART – NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)

[NOTE – No copies of U.S. patents, published U.S. patent applications, or pending, unpublished patent applications stored in the USPTO's Image File Wrapper (IFW) system, are included. See 37 CFR § 1.98 and 1287OG163. Copies of all other patent(s), publication(s), unpublished, pending U.S. patent applications, or other information listed are provided as required by 37 CFR § 1.98 unless 1) such copies were provided in an IDS in an earlier application that complies with 37 CFR § 1.98, and 2) the earlier application is relied upon for an earlier filing date under 35 U.S.C. § 120.]

EXAMINER: /Huy Ho/ (04/12/2015)	DATE CONSIDERED:

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

3844250.1 ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /H.H

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13795933	GANONG ET AL.
	Examiner	Art Unit
	HUY C HO	2644

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
455	563	9/25/2014	HH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST Database Search	9/25/2014	HH
Inventor Search	9/25/2014	HH
Search update	4/12/2015	HH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
455	79	9/25/2014	HH
379	88.01, 88.02	9/25/2014	HH

	/HUY C HO/ Primary Examiner.Art Unit 2644

REMARKS

In response to the Office Action dated April 17, 2015, the Assignee of the present application (Nuance Communications, Inc.) respectfully requests reconsideration. Claims 1-20 were previously pending in this application. By this amendment, claims 1, 19, and 20 are amended. No claims are added or canceled. As a result, claims 1-20 are currently pending for examination, with claims 1, 19, and 20 being independent. No new matter is added.

Rejections Under 35 U.S.C. § 102

The Office Action rejects claims 1-6, 9-11, and 18-20 under 35 U.S.C. 102(e) as purportedly being anticipated by Hung et al. (U.S. Pat. Pub. No. 2014/0012573). The Assignee respectfully requests reconsideration.

Discussion of Hung

Hung describes a signal processing apparatus including a voice activity detection (VAD) unit integrated with a speech recognition system (Title; Abstract). The apparatus of Hung has a "second application" in which the VAD unit detects whether an audio signal is a voice signal and generates a VAD result ([0036-0039]). If the audio signal is a voice signal, the VAD unit controls the speech recognition system to determine whether the voice signal carries a predetermined command ([0040-0043]). If the voice signal carries the predetermined command, the apparatus performs the operation corresponding to the predetermined command (id.).

Independent Claim 1

In rejecting claim 1 as previously pending, the Office Action (at 2-4) relies on Hung for purportedly disclosing "using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command," citing to FIG. 3 (especially step 308), paragraphs 0037 through 0043, and the "predetermined [command] information" of Hung. The cited portions of Hung merely describe using signal processing to detect whether an audio signal is a voice signal and whether the voice signal carries a predetermined command. Moreover, while the Assignee respectfully disagrees with the assertion (at 2) that the "predetermined [command] information" of Hung teaches a "contextual cue," claim 1 is amended to require "at least one contextual cue

comprising information other than content of the acoustic input." By contrast, Hung describes using only the audio signal itself to detect whether the audio signal includes a voice command.

Indeed, Hung describes performing VAD in the conventional way by processing the audio signal itself and nowhere discloses or suggests "using at least one ***contextual cue comprising information other than content of the acoustic input*** to assist in detecting whether the acoustic input includes a voice command," as required by amended claim 1. Therefore, claim 1 patentably distinguishes over Hung and is in allowable condition. Claims 2-18 depend from claim 1 and are allowable for at least the same reasons. In view of the foregoing, the Assignee respectfully requests withdrawal of the rejections of claims 1-18 under 35 U.S.C. §102.

Independent Claim 19

As should be appreciated from the above discussion of claim 1, Hung nowhere discloses or suggests using any information beyond the audio signal itself to detect whether the audio signal includes a voice command, and so Hung does not disclose "using at least one ***contextual cue comprising information other than content of the acoustic input*** to assist in detecting whether the acoustic input includes a voice command," as required by amended claim 19. Therefore, claim 19 patentably distinguishes over Hung and is in allowable condition. In view of the foregoing, the Assignee respectfully requests withdrawal of the rejection of claim 19 under 35 U.S.C. §102.

Independent Claim 20

As should be appreciated from the above discussion of claim 1, Hung nowhere discloses or suggests using any information beyond the audio signal itself to detect whether the audio signal includes a voice command, and so Hung does not disclose a mobile device comprising at least one processor configured to "use at least one ***contextual cue comprising information other than content of the acoustic input*** to assist in detecting whether the acoustic input includes a voice command," as required by claim 20. Therefore, claim 20 patentably distinguishes over Hung and is in allowable condition. In view of the foregoing, the Assignee respectfully requests withdrawal of the rejection of claim 20 under 35 U.S.C. §102.

General Comments on Dependent Claims

Because each of the dependent claims depends from a base claim that is believed to be in condition for allowance, the Assignee believes that it is unnecessary at this time to argue the further distinguishing features of all of the dependent claims. However, the Assignee does not necessarily concur with the interpretation of the dependent claims as set forth in the Office Action, nor does the Assignee concur that the basis for the rejection of any of the dependent claims is proper. Therefore, the Assignee reserves the right to specifically address in the future the further patentability of the dependent claims not specifically addressed herein.

CONCLUSION

In view of the foregoing amendments and remarks, the application is believed to be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes for any reason that the application is not in condition for allowance, he is requested to contact the undersigned to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, the Assignee hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825 under Docket No. N0484.71090US01 from which the undersigned is authorized to draw.

Dated: July 14, 2015

Respectfully submitted,

By /Thomas S. Chlebeck/
Marc S. Johannes
Registration No.: 64,978
Thomas S. Chlebeck
Registration No.: 70,616
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
617.646.8000

PTO/SB/30 (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Request for Continued Examination (RCE) Transmittal

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

Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong, III
Art Unit	2644
Examiner Name	H. C. Ho
Attorney Docket Number	N0484.71090US01

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. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. 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).
   - a. [ ] 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.
     - i. [ ] Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
     - ii. [ ] Other _____
   - b. [X] Enclosed
     - i. [X] Amendment/Reply
     - ii. [ ] Affidavit(s)/Declaration(s)
     - iii. [X] Information Disclosure Statement (IDS)
     - iv. [ ] Other _____

2. Miscellaneous
   - a. [ ] 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)
   - b. [ ] Other _____

3. Fees The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.
   - a. [ ] The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. 23/2825 .
     - i. [X] RCE fee required under 37 CFR 1.17(e)
     - ii. [ ] Extension of time fee (37 CFR 1.136 and 1.17)
     - iii. [ ] Other _____
   - b. [ ] Check in the amount of $ _____ enclosed
   - c. [X] Payment by credit card (~~Form PTO-2038 enclosed~~)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Signature	/Thomas S. Chlebeck/	Date	July 14, 2015
Name (Print/Type)	Thomas S. Chlebeck	Registration No.	70,616

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature			
Name (Print/Type)		Date	

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: ___July 14, 2015___ Electronic Signature for: ____/Eileen M. MacKenzie/____

4154028.1

DOCKET NO.: N0484.71090US01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	William F. Ganong
Application No.:	13/795,933
Confirmation No.:	2321
Filed:	March 12, 2013
For:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
Examiner:	Huy C. Ho
Art Unit:	2644

CERTIFICATE OF ELECTRONIC FILING UNDER 37 C.F.R. § 1.8

The undersigned hereby certifies that this paper, along with any paper referred to as being attached or enclosed, is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4), on:

Dated: July 14, 2015 Electronic Signature for: /Eileen M. MacKenzie/

MAIL STOP RCE
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 undersigned requests consideration of this Information Disclosure Statement.

PART I: Compliance with 37 C.F.R. § 1.97

This Information Disclosure Statement has been filed before the mailing of a first Office Action after the filing of a Request for Continued Examination under 37 C.F.R. § 1.114.

No fee or certification is required.

PART II: Information Cited

The undersigned hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified PTO/SB/08). The order of

presentation of the references should not be construed as an indication of the importance of the references.

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement 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-1449 (modified PTO/SB/08) be signed by the Examiner to evidence that the cited information has been fully considered by the United States 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 undersigned 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 undersigned 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 undersigned 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 statements by the undersigned, the Examiner is urged to form his or her own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Petitioner Exhibit 1004, Page 419 of 1518

The Director is hereby authorized to charge any deficiency or credit any overpayment in the fees occasioned by the filing of this Information Disclosure Statement to our Deposit Account No. 23/2825 under Docket No. N0484.71090US01 from which the undersigned is authorized to draw.

Respectfully submitted,

By: /Thomas S. Chlebeck/
Thomas Chlebeck, Reg. No. 70,616
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
Telephone: (617) 646-8000

Docket No.: N0484.71090US01
Date: July 14, 2015
xNDDx

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below, with insertions indicated by underlining and deletions indicated by strikethrough and/or double brackets.

1. (Currently amended) A method of monitoring an acoustic environment of a mobile device for voice commands when the mobile device is operating in a low power mode, the method comprising:

receiving acoustic input from the environment of the mobile device while the mobile device is operating in the low power mode;

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode; and

using at least one contextual cue comprising information other than content of the acoustic input to assist in detecting whether the acoustic input includes a voice command.

2. (Original) The method of claim 1, further comprising transitioning the mobile device from the low power mode to an active mode when it is detected that the acoustic input includes a voice command.

3. (Original) The method of claim 1, wherein the at least one contextual cue includes at least one of a time the acoustic input was received, motion of the mobile device, location of the mobile device, occurrence of an event on the mobile device, recent activity on the mobile device, a stored sample of the acoustic environment of the mobile device, and a power source of the mobile device.

4. (Original) The method of claim 3, wherein the at least one contextual cue includes the time the acoustic input was received, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on the time the acoustic input was received.

5. (Original) The method of claim 3, wherein the at least one contextual cue includes recent activity on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of how recently the user activated the mobile device, how recently the user issued a voice command and how recently the user performed at least one action on the mobile device.

6. (Original) The method of claim 3, wherein the at least one contextual cue includes an occurrence of an event on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on whether the acoustic input is received proximate in time with the occurrence of the event.

7. (Original) The method of claim 3, wherein the at least one contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on an assessment of whether the user moved the mobile device proximate in time with receiving the acoustic input based, at least in part, on the input from the accelerometer.

8. (Original) The method of claim 3, wherein the at least one contextual cue includes the location of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on determining whether the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device.

9. (Original) The method of claim 3, wherein the at least one contextual cue includes the power source of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of determining whether the mobile device is being powered using the battery or connected to wall power, and a state of the battery if the mobile device is being powered using the battery.

10. (Original) The method of claim 3, wherein the at least one contextual cue includes the sample of the acoustic environment obtained by the mobile device by storing acoustic input previously received by the mobile device and determined not to include a voice command, the method further comprising subtracting the sample of the acoustic environment from the acoustic input.

11. (Original) The method of claim 1, wherein a sequence of performing the plurality of processing stages is determined, at least in part, by the at least one contextual cue.

12. (Original) The method of claim 1, wherein the mobile device includes a primary processor and a secondary processor, and wherein at least one first processing stage of the plurality of processing stages is performed by the secondary processor prior to engaging the primary processor to process the acoustic input.

13. (Original) The method of claim 12, wherein at least one second processing stage of the plurality of processing stages is performed by the primary processor only after the at least one first processing stage is performed and neither concludes that the acoustic input includes a voice command nor concludes that the acoustic input is the result of spurious acoustic activity.

14. (Previously presented) The method of claim 12, wherein performing the at least one first processing stage includes performing at least one voice activity detection processing stage including performing at least one of spectral analysis on the acoustic input to evaluate whether a spectrum of the acoustic input is indicative of voice activity, periodicity analysis to evaluate whether signal periodicity of the acoustic input is indicative of voice activity, and phone loop analysis to evaluate whether the acoustic input includes speech.

15. (Original) The method of claim 12, wherein performing the at least one first processing stage comprises performing limited vocabulary automatic speech recognition on the acoustic input to detect whether the acoustic input includes an explicit voice trigger.

16. (Original) The method of claim 12, wherein performing the at least one second processing stage comprises performing at least one speech processing stage including at least one of automatic speech recognition on the acoustic input and at least one natural language processing stage to understand the meaning of the voice command.

17. (Original) The method of claim 1, wherein the mobile device is capable of connecting to at least one server via a network, the method further comprising transmitting at least a portion of the acoustic information to the at least one server via the network for processing by the at least one server.

18. (Original) The method of claim 1, further comprising performing one or more default actions when a specific task could not be ascertained from the acoustic input.

19. (Currently amended) At least one non-transitory computer readable medium encoded with instructions that, when executed on at least one processor, perform a method of monitoring an acoustic environment of a mobile device to receive acoustic input from the environment of the mobile device while the mobile device is operating in a low power mode, the method comprising:

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode; and

using at least one contextual cue comprising information other than content of the acoustic input to assist in detecting whether the acoustic input includes a voice command.

20. (Currently amended) A mobile device comprising:

at least one input to receive acoustic input from an environment of the mobile device while the mobile device is operating in a low power mode;

at least one processor configured to:

detect whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode; and

use at least one contextual cue comprising information other than content of the acoustic input to assist in detecting whether the acoustic input includes a voice command.

Docket No.: N0484.71090US01
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	William F. Ganong, III
Application No.:	13/795,933
Confirmation No.:	2321
Filed:	March 12, 2013
For:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
Examiner:	H. C. Ho
Art Unit:	2644

Certificate of Electronic Filing Under 37 CFR 1.8
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: ___July 14, 2015___ Electronic Signature for: ___/Eileen M. MacKenzie/____

AMENDMENT FILED WITH REQUEST FOR CONTINUED EXAMINATION

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

Dear Sir:

INTRODUCTORY COMMENTS

In response to the Office Action dated April 17, 2015, finally rejecting claims 1-20, please amend the above-identified U.S. patent application as follows:

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

Remarks/Arguments begin on page 7 of this paper.

Electronic Acknowledgement Receipt

EFS ID:	22918040
Application Number:	13795933
International Application Number:	
Confirmation Number:	2321
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Customer Number:	91337
Filer:	Thomas Stephen Chlebeck/Eileen MacKenzie
Filer Authorized By:	Thomas Stephen Chlebeck
Attorney Docket Number:	N0484.71090US01
Receipt Date:	14-JUL-2015
Filing Date:	12-MAR-2013
Time Stamp:	19:11:45
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	5256
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	Miscellaneous Incoming Letter	N048471090US01-TRN-TSC.pdf	24887 9106bdf8898ef1ddf85016bba78ce8c29d822af1d	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	N048471090US01-FEETRN-TSC.pdf	31450 281a4b05f2f8a4b06152c6feb39f619e7a940317	no	1
Warnings:					
Information:					
3	Request for Continued Examination (RCE)	N048471090US01-RCE-TSC.pdf	27141 59c5e4a654e50535e5f9ce57731e11915cdc0138	no	1
Warnings:					
This is not a USPTO supplied RCE SB30 form.					
Information:					
4		N048471090US01-AMN-TSC.pdf	49391 68aac29d232238f605cdf60f7031a2633948793a	yes	10

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment Submitted/Entered with Filing of CPA/RCE	1	1
Claims	2	6
Applicant Arguments/Remarks Made in an Amendment	7	10

Warnings:					
Information:					
5		N048471090US01-IDS-TSC.pdf	28599 68f7bf83e346c8c4298055ba520e9efc7e14f09c	yes	4

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**

	Transmittal Letter		1		3
	Information Disclosure Statement (IDS) Form (SB08)		4		4
Warnings:					
Information:					
6	Fee Worksheet (SB06)	fee-info.pdf	30947 d4891fcca208d7df942c92658b0544d6b6db75a1	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	192415		

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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.

Doc Code: TRAN.LET
Document Description: Transmittal Letter

USED IN LIEU OF PTO/SB/21 (07-09)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong, III
Art Unit	2644
Examiner Name	H. C. Ho
Attorney Docket Number	N0484.71090US01

Total Number of Pages in This Submission	17

ENCLOSURES (*Check all that apply*)

- [X] Fee Transmittal Form
  - [ ] Fee Attached
- [X] Amendment/Reply
  - [X] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [X] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [X] Other Enclosure(s) (please Identify below):

  Request for Continued Examination (RCE)

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature	/Thomas S. Chlebeck/		
Printed name	Thomas S. Chlebeck		
Date	July 14, 2015	Reg. No.	70,616

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Dated: July 14, 2015 Electronic Signature for: /Eileen M. MacKenzie/

4154027.1

PTO/SB/17 (03-13)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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FEE TRANSMITTAL

Complete if known	
Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong, III
Examiner Name	H. C. Ho
Art Unit	2644
Practitioner Docket No.	N0484.71090US01

☐ Applicant asserts small entity status. See 37 CFR 1.27.

☐ Applicant certifies micro entity status. See 37 CFR 1.29. Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

TOTAL AMOUNT OF PAYMENT ($) 1,200.00

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☐ Deposit Account Deposit Account Number: 23/2825 Deposit Account Name: Wolf, Greenfield & Sacks, P.C.

For the above-identified deposit account, the Director is hereby authorized to (check all that apply):

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayment of fee(s)

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES (U = undiscounted fee; S = small entity fee; M = micro entity fee)

	FILING FEES			SEARCH FEES			EXAMINATION FEES			
Application Type	**U ($)**	**S ($)**	**M ($)**	**U ($)**	**S ($)**	**M ($)**	**U ($)**	**S ($)**	**M ($)**	**Fees Paid ($)**
Utility	280	140*	70	600	300	150	720	360	180	
Design	180	90	45	120	60	30	460	230	115	
Plant	180	90	45	380	190	95	580	290	145	
Reissue	280	140	70	600	300	150	2,160	1,080	540	
Provisional	260	130	65	0	0	0	0	0	0	

* The $140 small entity status filing fee for a utility application is further reduced to $70 for a small entity status applicant who files the application via EFS-Web.

2. EXCESS CLAIM FEES

Fee Description	**Undiscounted Fee ($)**	**Small Entity Fee ($)**	**Micro Entity Fee ($)**
Each claim over 20 (including Reissues)	80	40	20
Each independent claim over 3 (including Reissues)	420	210	105
Multiple dependent claims	780	390	195

Total Claims	**Extra Claims**	**Fee ($)**	**Fee Paid ($)**
20 - or HP =		x	=

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	**Extra Claims**	**Fee ($)**	**Fee Paid ($)**
- or HP =		x	=

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims	
Fee ($)	**Fee Paid ($)**

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $400 ($200 for small entity) ($100 for micro entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	**Extra Sheets**	**Number of each additional 50 or fraction thereof**	**Fee ($)**	**Fee Paid ($)**
- 100 =	/50 =	(round **up** to a whole number) x		=

4. OTHER FEE(S)

	Fees Paid ($)
Non-English specification, $130 fee (no small or micro entity discount)	
Non-electronic filing fee under 37 CFR 1.16(t) for a utility application, $400 fee ($200 small or micro entity)	
Other (e.g., late filing surcharge): 1801 Request for RCE - 1st request (see 37 CFR 1.114)	1,200.00

SUBMITTED BY

Signature	/Thomas S. Chlebeck/	Registration No. (Attorney/Agent)	70,616	Telephone	617.646.8000
Name (Print/Type)	Thomas S. Chlebeck			Date	July 14, 2015

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Dated: July 14, 2015 Electronic Signature for: /Eileen M. MacKenzie/

4154026.1

Electronic Patent Application Fee Transmittal

Application Number:	13795933
Filing Date:	12-Mar-2013
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Filer:	Thomas Stephen Chlebeck/Eileen MacKenzie
Attorney Docket Number:	N0484.71090US01

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**

FORM PTO-1449/A and B (modified PTO/SB/08)	APPLICATION NO.: 13/795,933	ATTY. DOCKET NO.: N0484.71090US01
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 12, 2013	CONFIRMATION NO.: 2321
	FIRST NAMED INVENTOR: William F. Ganong	
Sheet 1 of 1	GROUP ART UNIT: 2644	EXAMINER: Huy C. Ho

U.S. PATENT DOCUMENTS

Examiner's Initials #	Cite No.	U.S. Patent Document Number	U.S. Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		2007-0129949	A1	Alberth, JR. et al.	06-07-2007

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No.	Foreign Patent Document Office/ Country	Foreign Patent Document Number	Foreign Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)

OTHER ART – NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)

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EXAMINER:	DATE CONSIDERED:

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

4155360.1

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/795,933	Filing Date 03/12/2013	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)		
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (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	**07/14/2015**	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	x $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		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
/KIMBERLY PANNELL/

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.

PTO/SB/06 (09-11)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/795,933	Filing Date 03/12/2013	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

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

AMENDMENT	07/14/2015	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) 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

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) 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
/KIMBERLY PANNELL/

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.

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	2	"US 20140274203"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2015/07/24 17:00
L3	1	detect$3 with (voice near3 command) with (cue hint) with (motion move) with (device apparatus)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/24 17:09
L4	1	3 and (@ad<"20130312" @rlad<"20130312")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/07/24 17:10
L5	1	detect$3 with ((speech voice) near3 command) with (cue hint) with (motion move) with (device apparatus)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/24 17:13
L6	25	detect$3 same ((speech voice) near3 command) same (cue hint) same (motion move) same (device apparatus)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/24 17:14
L7	21	6 and (@ad<"20130312" @rlad<"20130312")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/07/24 17:14
S1	84	("20100185448" | "20110054899" | "20130080167" | "20130080171" | "20130289994" | "20130339028" | "20140012573" | "20140012586" | "5428707" | "5774859" | "5802305" | "5983186" | "6070140" | "6092043" | "6397186" | "6408396" | "6411926" | "6449496" | "6594630" | "6756700" | "6941265" | "6965786" | "7114090" | "7567827" | "7720683" | "7774204" | "8056070" | "8181046" | "8190420" | "8285545" | "8666751").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/11 15:08

S2	1	"US 20140274203"	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2014/09/25 13:39
S3	6	"8094838"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/25 13:54
S4	6	"8094838"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/25 13:54
S5	6	"8094838"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/25 14:38
S6	36	(jacoby near2 keith).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/25 14:39
S7	3	"US 20080172221"	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2014/09/25 14:39
S8	3	"20140012573"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 17:24
S9	5	"20030040339"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 19:50
S10	5	"20030040339"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 19:50
S11	903	455/563.ccls.	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2014/09/29 20:36

			EPO; JPO; DERWENT; IBM_TDB			
S12	239	S11 and (voice near3 command)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:37
S13	162	S12 and (GPS location)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:38
S14	18	S13 and (acceleration accelerometer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:39
S15	14	S14 and (@ad<"20130312" @rlad<"20130312")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:39
S16	4	S15 and (vehicle vehicular automobile car)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 20:40
S17	10166	379/88.01-88.2.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:23
S18	1003	S17 and (voice near3 command)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:23
S19	367	S18 and (voice near3 recogniz$5)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:24
S20	7	S19 and (acceleration accelerometer)	US-PGPUB; USPAT;	OR	OFF	2014/09/29 21:24

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S21	253	S19 and (GPS location)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:24
S22	6	S15 and (vehicle vehicular automobile car home office)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:25
S23	211	S21 and (vehicle vehicular automobile car home office)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:25
S24	211	S23 and (@ad<"20130312" @rlad<"20130312")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:25
S25	13	S24 and (low$2 near3 (power energy))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 21:26
S26	2	"20130289994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 23:54
S27	2	2013/0080171	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/09/29 23:54
S28	55	((William) near2 (Ganong)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/29 23:55
S29	5	((Paul) near2 ("Van Mulbregt")).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/29 23:55

S30	31	((Vladimir) near2 (Sejnoha)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/29 23:55
S31	25	((Glen) near2 (Wilson)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/29 23:55
S32	2	"US 20140274203"	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2015/04/12 23:29
S33	2	"US 20140274203"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2015/07/23 09:19
S34	3	"20070129949"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/23 09:21

7/ 24/ 2015 5:20:00 PM
C:\ Users\ hho3\ Documents\ EAST\ Workspaces\ 13795933.wsp

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BIB DATA SHEET

CONFIRMATION NO. 2321

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/795,933	03/12/2013	455	2644	N0484.71090US01

APPLICANTS

Nuance Communications, Inc., Burlington, MA;

INVENTORS

William F. Ganong III, Brookline, MA;
Paul Adrian Van Mulbregt, Wayland, MA;
Vladimir Sejnoha, Lexington, MA;
Glen Wilson, Maynard, MA;

**** CONTINUING DATA **************************

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

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
04/02/2013

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /HUY C HO/ Examiner's Signature	☐ Met after Allowance HH Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		MA	10	20	3

ADDRESS

Nuance Communications, Inc.
c/o Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, MA 02210-2206
UNITED STATES

TITLE

METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND

FILING FEE RECEIVED		
1740	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

FORM PTO-1449/A and B (modified PTO/SB/08)	APPLICATION NO.: 13/795,933	ATTY. DOCKET NO.: N0484.71090US01
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 12, 2013	CONFIRMATION NO.: 2321
	FIRST NAMED INVENTOR: William F. Ganong	
Sheet 1 of 1	GROUP ART UNIT: 2644	EXAMINER: Huy C. Ho

U.S. PATENT DOCUMENTS

Examiner's Initials #	Cite No.	U.S. Patent Document Number	U.S. Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		2007-0129949	A1	Alberth, JR. et al.	06-07-2007

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No.	Foreign Patent Document Office/ Country	Foreign Patent Document Number	Foreign Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)

OTHER ART – NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)

[NOTE – No copies of U.S. patents, published U.S. patent applications, or pending, unpublished patent applications stored in the USPTO's Image File Wrapper (IFW) system, are included. See 37 CFR § 1.98 and 1287OG163. Copies of all other patent(s), publication(s), unpublished, pending U.S. patent applications, or other information listed are provided as required by 37 CFR § 1.98 unless 1) such copies were provided in an IDS in an earlier application that complies with 37 CFR § 1.98, and 2) the earlier application is relied upon for an earlier filing date under 35 U.S.C. § 120.]

EXAMINER:	DATE CONSIDERED:
/Huy Ho/ (07/23/2015)	

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

4155360.1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /H.H./

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13795933	GANONG ET AL.
	Examiner	Art Unit
	HUY C HO	2644

✓	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	09/25/2014	04/12/2015	07/24/2015						
	1	✓	✓	✓						
	2	✓	✓	✓						
	3	✓	✓	✓						
	4	✓	✓	✓						
	5	✓	✓	✓						
	6	✓	✓	✓						
	7	✓	✓	✓						
	8	✓	✓	✓						
	9	✓	✓	✓						
	10	✓	✓	✓						
	11	✓	✓	✓						
	12	✓	✓	✓						
	13	✓	✓	✓						
	14	✓	✓	✓						
	15	✓	✓	✓						
	16	✓	✓	✓						
	17	✓	✓	✓						
	18	✓	✓	✓						
	19	✓	✓	✓						
	20	✓	✓	✓						

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13795933	GANONG ET AL.
	Examiner	Art Unit
	HUY C HO	2644

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
455	563	9/25/2014	HH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST Database Search	9/25/2014	HH
Inventor Search	9/25/2014	HH
Search update	4/12/2015	HH
Search update	7/24/2015	HH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
455	79	9/25/2014	HH
379	88.01, 88.02	9/25/2014	HH

	/HUY C HO/ Primary Examiner.Art Unit 2644

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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/795,933	03/12/2013	William F. Ganong III	N0484.71090US01	2321

91337 7590 07/30/2015

Nuance Communications, Inc.
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600 Atlantic Avenue
Boston, MA 02210-2206

EXAMINER
HO, HUY C

ART UNIT	PAPER NUMBER
2644	

NOTIFICATION DATE	DELIVERY MODE
07/30/2015	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):

Patents_eOfficeAction@wolfgreenfield.com
N0484_eOfficeAction@WolfGreenfield.com
IP.Inbox@nuance.com

Office Action Summary	Application No. 13/795,933	Applicant(s) GANONG ET AL.	
	Examiner HUY C. HO	Art Unit 2644	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 *07/14/2015*.

☐ 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 *03/12/2013* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

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

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

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

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date *07/14/2015*.

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

4) ☐ Other: ____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. 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 07/14/2015 has been entered.

Response to Arguments

2. Applicant’s arguments with respect to the independent claims 1 and 19, have been considered but are moot because the new amended featured limitations have been added to the claims. Therefore, a new ground of rejection is provided as follows.

Claim Rejections - 35 USC § 103

3. 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 negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of pre-AIA 35 U.S.C. 103(c) and potential pre-AIA 35 U.S.C. 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. 103(a).

5. Claims 1-7, 9-11 and 18-20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in view of Oh et al. (U.S. Pub. No. 2010/0009719).

Regarding claim 1, (Currently Amended) Hung teaches a method of monitoring an acoustic environment of a mobile device for voice commands when the mobile device is operating in a low power mode (*Hung, the Abstract*), the method comprising:

receiving acoustic input from the environment of the mobile device while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24]);*

detecting whether the acoustic input includes a voice

command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24])*; and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information).*

Hung does not teach "the contextual cue comprising information other than content of the acoustic input".

Oh teaches "the contextual cue comprising information other than content of the acoustic input" (*Oh, Figure 6A, hand gestures such as hand movements approaching to the device causing the device to recognize the cue as the hand movement and cause the device to activate for voice recognition function*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Oh a device comprises sensors for recognizing not only voice input but also other than voice recognition contents such as body or hand motions that also causes the trigger for the device to interpret

the motions to activate voice recognition function in the device, thus improving the voice recognition for mobile communication devices by taking to the next high and sophisticated level in developments for mobile communication devices in the wireless cellular technology.

Regarding claim 19, (Currently Amended) Hung teaches at least one non-transitory computer readable medium encoded with instructions that, when executed on at least one processor, perform a method of monitoring an acoustic environment of a mobile device to receive acoustic input from the environment of the mobile device while the mobile device is operating in a low power mode (*Hung, the Abstract, Paragraph [4])*, the method comprising:

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24]);* and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech*

recognition on the audio signal to determine whether the audio signal carries the predetermined command information).

Hung does not teach "the contextual cue comprising information other than content of the acoustic input".

Oh teaches "the contextual cue comprising information other than content of the acoustic input" (*Oh, Figure 6A, hand gestures such as hand movements approaching to the device causing the device to recognize the cue as the hand movement and cause the device to activate for voice recognition function*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Oh a device comprises sensors for recognizing not only voice input but also other than voice recognition contents such as body or hand motions that also causes the trigger for the device to interpret the motions to activate voice recognition function in the device, thus improving the voice recognition for mobile communication devices by taking to the next high and sophisticated level in developments for mobile communication devices in the wireless cellular technology.

Regarding claim 20, (Currently Amended) Hung teaches a mobile device (*Hung, the Abstract*), comprising:

at least one input to receive acoustic input from an

environment of the mobile device while the mobile device is operating in a low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24]);*

at least one processor configured to:

detect whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the low power mode (*Hung, Figure 1, Paragraph(s) [22]-[24]);* and

use at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information).*

Hung does not teach "the contextual cue comprising information other than content of the acoustic input".

Oh teaches "the contextual cue comprising information other than content of the acoustic input" (*Oh, Figure 6A, hand gestures such as hand movements approaching to the device causing the device to recognize the cue as the hand movement and cause the device to activate for voice recognition function*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Oh a device comprises sensors for recognizing not only voice input but also other than voice recognition contents such as body or hand motions that also causes the trigger for the device to interpret the motions to activate voice recognition function in the device, thus improving the voice recognition for mobile communication devices by taking to the next high and sophisticated level in developments for mobile communication devices in the wireless cellular technology.

Regarding claim 2, (Original) Hung, as modified by Oh, teaches the method of claim 1, further comprising transitioning the mobile device from the low power mode to an active mode when it is detected that the acoustic input includes a voice command (*Hung, Figure 1, Step 212)*.

Regarding claim 3, (Original) Hung, as modified by Oh, teaches the method of claim 1, wherein the at least one contextual cue includes at least one of a time the acoustic input was received, motion of the mobile device, location of the mobile device, occurrence of an event on the mobile device, recent activity on the mobile device, a stored sample of the acoustic environment of the mobile device, and a power source of

the mobile device (*Hung, Figure 1, Paragraph(s) [22]-[23]*).

Regarding claim 4, (Original) Hung, as modified by Oh, teaches the method of claim 3, wherein the at least one contextual cue includes the time the acoustic input was received, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on the time the acoustic input was received (*Hung, Figure 1, Paragraph(s) [22]-[23]*).

Regarding claim 5, (Original) Hung, as modified by Oh, teaches the method of claim 3, wherein the at least one contextual cue includes recent activity on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of how recently the user activated the mobile device, how recently the user issued a voice command and how recently the user performed at least one action on the mobile device (*Hung, Paragraph(s) [21]-[23]*).

Regarding claim 6, (Original) Hung, as modified by Oh, teaches the method of claim 3, wherein the at least one contextual cue includes an occurrence of an event on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on

whether the acoustic input is received proximate in time with the occurrence of the event (*Hung, Paragraph(s) [21]-[23]*).

Regarding claim 7, (Original) Hung, as modified by Oh, teaches the method of claim 3, wherein the at least one contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on an assessment of whether the user moved the mobile device proximate in time with receiving the acoustic input based, at least in part, on the input from the accelerometer (*Oh, Figure 6A, Paragraph [55]*).

Regarding claim 9, (Original) Hung, as modified by Oh, teaches the method of claim 3, wherein the at least one contextual cue includes the power source of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of determining whether the mobile device is being powered using the battery or connected to wall power, and a state of the battery if the mobile device is being powered using the battery (*Hung, Paragraph(s) [4]-[6]*).

Regarding claim 10, (Original) Hung, as modified by Oh, teaches the method of claim 3, wherein the at least one contextual cue includes the sample of the acoustic environment

obtained by the mobile device by storing acoustic input previously received by the mobile device and determined not to include a voice command, the method further comprising subtracting the sample of the acoustic environment from the acoustic input (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 11, (Original) Hung, as modified by Oh, teaches the method of claim 1, wherein a sequence of performing the plurality of processing stages is determined, at least in part, by the at least one contextual cue (*Hung, Paragraph(s) [21]-[23]*).

Regarding claim 18, (Original) Hung teaches the method of claim 1, further comprising performing one or more default actions when a specific task could not be ascertained from the acoustic input (*Hung, Paragraph(s) [21]-[23]*).

7. Claim 8 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in views of Oh et al. (U.S. Pub. No. 2010/0009719) and Schrager (U.S. Patent No. 8,620,389).

Regarding claim 8, (Original) The method of claim 3, wherein the at least one contextual cue includes the location of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages

based on determining whether the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device.

Hung, as modified by Oh, does not teach "the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device".

Schrager teaches "the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device" (*Schrager, Col. 14 lines 33-40, a mobile device can be located in an automobile*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung and Oh, by incorporating the teachings of Schrager a communications device may recognize a user's spoken commands when the user travels carrying the phone by hand or in a bag or leave the communications device handsfree in an automobile thus providing the user convenience with advanced automatic voice control feature of the communications device thus attracting potential customers with the high-tech advanced product features and increasing the product sales volume.

8. Claims 12-16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573)

and further in views of Oh et al. (U.S. Pub. No. 2010/0009719) and Newman (U.S. Pub. No. 2013/0289994).

Regarding claim 12, (Original) The method of claim 1, wherein the mobile device includes a primary processor and a secondary processor, and wherein at least one first processing stage of the plurality of processing stages is performed by the secondary processor prior to engaging the primary processor to process the acoustic input.

Hung, as modified by Oh, does not teach "the mobile device includes a primary processor and a secondary processor".

Newman teaches "the mobile device includes a primary processor and a secondary processor" (*Newman, the Abstract, Paragraph [8]*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Newman the technique used in an mobile communication device including two processing controllers, i.e., a main CPU controller and a secondary DSP controller, wherein the DSP controller is used for picking up voice and speech recognition at a lower power consumption to conserve battery power for the main CPU controller when the main controller is in inactive mode. The two processing controllers are configured to improve battery energy

conservation for a mobile communication device during voice and speech recognition.

Regarding claim 13, Hung, as modified by Oh and Newman, teaches the method of claim 12, wherein at least one second processing stage of the plurality of processing stages is performed by the primary processor only after the at least one first processing stage is performed and neither concludes that the acoustic input includes a voice command nor concludes that the acoustic input is the result of spurious acoustic activity (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 14, (Currently Amended) Hung, as modified by Oh and Newman, teaches the method of claim 12, wherein performing the at least one first processing stage includes performing at least one voice activity detection processing stage including performing at least one of spectral analysis on the acoustic input to evaluate whether a spectrum of the acoustic input is indicative of voice activity, periodicity analysis to evaluate whether signal periodicity of the acoustic input is indicative of voice activity, and phone loop analysis to evaluate whether the acoustic input includes speech (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 15, (Original) Hung, as modified by Oh and Newman, teaches the method of claim 12, wherein performing the

at least one first processing stage comprises performing limited vocabulary automatic speech recognition on the acoustic input to detect whether the acoustic input includes an explicit voice trigger (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308)*.

Regarding claim 16, (Original) Hung, as modified by Oh and Newman, teaches the method of claim 12, wherein performing the at least one second processing stage comprises performing at least one speech processing stage including at least one of automatic speech recognition on the acoustic input and at least one natural language processing stage to understand the meaning of the voice command (*Hung, Figure 3, Paragraph(s) [37]-[43])*.

9. Claim 17 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in views of Oh et al. (U.S. Pub. No. 2010/0009719) and Mozer et al. (U.S. Pub. No. 2013/0080171).

Regarding claim 17, (Original) The method of claim 1, wherein the mobile device is capable of connecting to at least one server via a network, the method further comprising transmitting at least a portion of the acoustic information to the at least one server via the network for processing by the at least one server.

Hung, as modified by Oh, does not teach "the mobile device is capable of connecting to at least one server via a network".

Mozer teaches "the mobile device is capable of connecting to at least one server via a network" (*Mozer, Paragraph [24]).*

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung and Oh by incorporating the teachings of Mozer a mobile device recognizes an acoustic input signal via recognizers, i.e., an always-on recognizer 102 and a second recognizer 104 (*Mozer, Figure 1B, recognizer 102),* wherein the always-on recognizer 102 may communicate with the second recognizer 104 over a network (*Mozer, Figure 1B, Paragraph [24]),* and the second recognizer 104 may be located in a server. The second recognizer is triggered for recognizing the acoustic input signal based on a selection of a classification.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUY C. HO whose telephone number is (571)270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. 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.

/HUY C HO/
Primary Examiner, Art Unit 2644

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/795,933	03/12/2013	William F. Ganong III	N0484.71090US01	2321

91337 7590 10/08/2015

Nuance Communications, Inc.
c/o Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, MA 02210-2206

EXAMINER
HO, HUY C

ART UNIT	PAPER NUMBER
2644	

NOTIFICATION DATE	DELIVERY MODE
10/08/2015	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):

Patents_eOfficeAction@wolfgreenfield.com
N0484_eOfficeAction@WolfGreenfield.com
IP.Inbox@nuance.com

Applicant-Initiated Interview Summary	Application No.	Applicant(s)	
	13/795,933	GANONG ET AL.	
	Examiner	Art Unit	
	HUY C. HO	2644	

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

(1) *HUY C. HO.* (3)____.

(2) *CHLEBECK, THOMAS (Reg. No. 70,616).* (4)____.

Date of Interview: *05 October 2015.*

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

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: *N/A.*

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: *Hung and Oh.*

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...)

Claim 1 has been discussed over the current prior art references above. The arguable features, i.e., the context cue comprising information other than content of the acoustic input to assist in detecting whether the acoustic input includes a voice command, were explained and discussed over reference Oh. However, no agreement was reached. Next office action will be provided when the applicant's official response is filed.

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

/HUY C HO/
Primary Examiner, Art Unit 2644

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.

PTO/SB/17 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
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Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it displays a valid OMB control number

FEE TRANSMITTAL

Complete if known	
Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong
Examiner Name	Huy C. Ho
Art Unit	2644
Practitioner Docket No.	N0484.71090US01

☐ Applicant asserts small entity status. See 37 CFR 1.27.

☐ Applicant certifies micro entity status. See 37 CFR 1.29. Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

TOTAL AMOUNT OF PAYMENT ($) 180.00

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☐ Deposit Account Deposit Account Number: 23/2825 Deposit Account Name: Wolf, Greenfield & Sacks, P.C.

For the above-identified deposit account, the Director is hereby authorized to (check all that apply):

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayment of fee(s)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES (U = undiscounted fee; S = small entity fee; M = micro entity fee)

	FILING FEES			SEARCH FEES			EXAMINATION FEES			
Application Type	**U ($)**	**S ($)**	**M ($)**	**U ($)**	**S ($)**	**M ($)**	**U ($)**	**S ($)**	**M ($)**	**Fees Paid ($)**
Utility	280	140*	70	600	300	150	720	360	180	
Design	180	90	45	120	60	30	460	230	115	
Plant	180	90	45	380	190	95	580	290	145	
Reissue	280	140	70	600	300	150	2,160	1,080	540	
Provisional	260	130	65	0	0	0	0	0	0	

* The $140 small entity status filing fee for a utility application is further reduced to $70 for a small entity status applicant who files the application via EFS-Web.

2. EXCESS CLAIM FEES

Fee Description	**Undiscounted Fee ($)**	**Small Entity Fee ($)**	**Micro Entity Fee ($)**
Each claim over 20 (including Reissues)	80	40	20
Each independent claim over 3 (including Reissues)	420	210	105
Multiple dependent claims	780	390	195

Total Claims	**Extra Claims**	**Fee ($)**	**Fee Paid ($)**	**Multiple Dependent Claims**	
				Fee ($)	**Fee Paid ($)**
- 20 or HP =	x	=			

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	**Extra Claims**	**Fee ($)**	**Fee Paid ($)**
- 3 or HP =	x	=	

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $400 ($200 for small entity) ($100 for micro entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	**Extra Sheets**	**Number of each additional 50 or fraction thereof**	**Fee ($)**	**Fee Paid ($)**
- 100 =	/50 =	(round **up** to a whole number) x		=

4. OTHER FEE(S)

	Fees Paid ($)
Non-English specification, $130 fee (no small or micro entity discount)	
Non-electronic filing fee under 37 CFR 1.16(t) for a utility application, $400 fee ($200 small or micro entity)	
Other (e.g., late filing surcharge): 1806 Submission of an Information Disclosure Statement	180.00

SUBMITTED BY

Signature	/Thomas S. Chlebeck/	Registration No. (Attorney/Agent)	70,616	Telephone	617.646.8000
Name (Print/Type)	Thomas S. Chlebeck			Date	October 30, 2015

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: October 30, 2015 Signature: ___/Kyle D. Spencer/___ (Kyle D. Spencer)

4362836.1

Electronic Acknowledgement Receipt

EFS ID:	23945303
Application Number:	13795933
International Application Number:	
Confirmation Number:	2321
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Customer Number:	91337
Filer:	Thomas Stephen Chlebeck/Kyle Spencer
Filer Authorized By:	Thomas Stephen Chlebeck
Attorney Docket Number:	N0484.71090US01
Receipt Date:	30-OCT-2015
Filing Date:	12-MAR-2013
Time Stamp:	14:52:31
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$180
RAM confirmation Number	1333
Deposit Account	232825
Authorized User	CHLEBECK, THOMAS S.

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 1.17 (Patent application and reexamination processing fees)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Fee Worksheet (SB06)	N048471090US01-FEE-TSC.pdf	31439 f93575f873fae8cfa1736a849b6471a22ee060fe	no	1
Warnings:					
Information:					
2	Miscellaneous Incoming Letter	N048471090US01-TRN-TSC.pdf	24557 7db1879d251b29863bbcf1ce7d84340c21c27595	no	1
Warnings:					
Information:					
3		N048471090US01-IDS-TSC.pdf	28822 ea9568e045f99196d3bc0678709fa131044a125b	yes	4

Multipart Description/PDF files in .zip description

Document Description	Start	End
Transmittal Letter	1	3
Information Disclosure Statement (IDS) Form (SB08)	4	4

Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	30885 02f9a0dd09bbef5b9012db8c15bc52c9c42fa089	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	115703		

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.

Electronic Patent Application Fee Transmittal

Application Number:	13795933
Filing Date:	12-Mar-2013
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Filer:	Thomas Stephen Chlebeck/Kyle Spencer
Attorney Docket Number:	N0484.71090US01

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($)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
		Total in USD ($)		**180**

DOCKET NO.: N0484.71090US01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	William F. Ganong
Application No.:	13/795,933
Confirmation No.:	2321
Filed:	March 12, 2013
For:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
Examiner:	Huy C. Ho
Art Unit:	2644

CERTIFICATE OF ELECTRONIC FILING UNDER 37 C.F.R. § 1.8

The undersigned hereby certifies that this paper, along with any paper referred to as being attached or enclosed, is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4), on the 30th day of October, 2015.

___/Kyle D. Spencer/___
Kyle D. Spencer

MAIL STOP AMENDMENT
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 undersigned requests consideration of this Information Disclosure Statement.

PART I: Compliance with 37 C.F.R. § 1.97

This Information Disclosure Statement has been filed more than three months after the filing date of this application and after the mailing date of a first Office Action, but before the mailing date of any of a Final Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution in this application.

Please charge our Credit Card in the amount of $180.00 covering the fee set forth in 37 C.F.R. § 1.17(p).

PART II: Information Cited

The undersigned hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified PTO/SB/08). The order of presentation of the references should not be construed as an indication of the importance of the references.

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement 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-1449 (modified PTO/SB/08) be signed by the Examiner to evidence that the cited information has been fully considered by the United States 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 undersigned 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 undersigned 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 undersigned 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 statements by the undersigned, the Examiner is urged to form his or her own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Petitioner Exhibit 1004, Page 474 of 1518

The Director is hereby authorized to charge any deficiency or credit any overpayment in the fees occasioned by the filing of this Information Disclosure Statement to our Deposit Account No. 23/2825 under Docket No. N0484.71090US01 from which the undersigned is authorized to draw.

Respectfully submitted,

By: /Thomas S. Chlebeck/
Thomas Chlebeck, Reg. No. 70,616
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
Telephone: (617) 646-8000

Docket No.: N0484.71090US01
Date: October 30, 2015
xNDDx

Doc Code: TRAN.LET
Document Description: Transmittal Letter

USED IN LIEU OF PTO/SB/21 (07-09)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong
Art Unit	2644
Examiner Name	Huy C. Ho
Attorney Docket Number	N0484.71090US01

Total Number of Pages in This Submission

ENCLOSURES (*Check all that apply*)

- [x] Fee Transmittal Form
- [ ] Fee Attached
- [ ] Amendment/Reply
- [ ] After Final
- [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [x] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
- [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
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- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) (please Identify below):

Form PTO – 1449

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature	/Thomas S. Chlebeck/		
Printed name	Thomas S. Chlebeck		
Date	October 30, 2015	Reg. No.	70,616

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: October 30, 2015 Signature: ___/Kyle D. Spencer/___ (Kyle D. Spencer)

4362838.1

FORM PTO-1449/A and B (modified PTO/SB/08)	APPLICATION NO.: 13/795,933	ATTY. DOCKET NO.: N0484.71090US01
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 12, 2013	CONFIRMATION NO.: 2321
	FIRST NAMED INVENTOR: William F. Ganong	
Sheet 1 of 1	GROUP ART UNIT: 2644	EXAMINER: Huy C. Ho

U.S. PATENT DOCUMENTS

Examiner's Initials #	Cite No.	U.S. Patent Document Number	U.S. Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		7,574,361	A1	Yeager et al.	04-05-2007
		2007-0129949	A1	Alberth, JR. et al.	06-07-2007
		2012-0329389	A1	Royston et al.	12-27-2012

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No.	Foreign Patent Document Office/ Country	Foreign Patent Document Number	Foreign Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)

OTHER ART – NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)

[NOTE – No copies of U.S. patents, published U.S. patent applications, or pending, unpublished patent applications stored in the USPTO's Image File Wrapper (IFW) system, are included. See 37 CFR § 1.98 and 1287OG163. Copies of all other patent(s), publication(s), unpublished, pending U.S. patent applications, or other information listed are provided as required by 37 CFR § 1.98 unless 1) such copies were provided in an IDS in an earlier application that complies with 37 CFR § 1.98, and 2) the earlier application is relied upon for an earlier filing date under 35 U.S.C. § 120.]

EXAMINER:	DATE CONSIDERED:

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

4362782.1

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below, with insertions indicated by underlining and deletions indicated by strikethrough and/or double brackets.

1. (Currently amended) A method of monitoring an acoustic environment of a mobile device for voice commands when the mobile device is operating in ~~a low power~~ an idle mode, the method comprising:

receiving acoustic input from the environment of the mobile device while the mobile device is operating in the idle ~~low power~~ mode;

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the idle ~~low power~~ mode; and

while the mobile device is operating in the idle mode, using at least one contextual cue comprising information other than content of the acoustic input to assist in detecting whether the acoustic input includes a voice command.

2. (Currently amended) The method of claim 1, further comprising transitioning the mobile device from the idle ~~low power~~ mode to an active mode when it is detected that the acoustic input includes a voice command.

3. (Original) The method of claim 1, wherein the at least one contextual cue includes at least one of a time the acoustic input was received, motion of the mobile device, location of the mobile device, occurrence of an event on the mobile device, recent activity on the mobile device, a stored sample of the acoustic environment of the mobile device, and a power source of the mobile device.

4. (Original) The method of claim 3, wherein the at least one contextual cue includes the time the acoustic input was received, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on the time the acoustic input was received.

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5. (Original) The method of claim 3, wherein the at least one contextual cue includes recent activity on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of how recently the user activated the mobile device, how recently the user issued a voice command and how recently the user performed at least one action on the mobile device.

6. (Original) The method of claim 3, wherein the at least one contextual cue includes an occurrence of an event on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on whether the acoustic input is received proximate in time with the occurrence of the event.

7. (Original) The method of claim 3, wherein the at least one contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on an assessment of whether the user moved the mobile device proximate in time with receiving the acoustic input based, at least in part, on the input from the accelerometer.

8. (Original) The method of claim 3, wherein the at least one contextual cue includes the location of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on determining whether the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device.

9. (Original) The method of claim 3, wherein the at least one contextual cue includes the power source of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of determining whether the mobile device is being powered using the battery or connected to wall power, and a state of the battery if the mobile device is being powered using the battery.

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10. (Original) The method of claim 3, wherein the at least one contextual cue includes the sample of the acoustic environment obtained by the mobile device by storing acoustic input previously received by the mobile device and determined not to include a voice command, the method further comprising subtracting the sample of the acoustic environment from the acoustic input.

11. (Original) The method of claim 1, wherein a sequence of performing the plurality of processing stages is determined, at least in part, by the at least one contextual cue.

12. (Original) The method of claim 1, wherein the mobile device includes a primary processor and a secondary processor, and wherein at least one first processing stage of the plurality of processing stages is performed by the secondary processor prior to engaging the primary processor to process the acoustic input.

13. (Original) The method of claim 12, wherein at least one second processing stage of the plurality of processing stages is performed by the primary processor only after the at least one first processing stage is performed and neither concludes that the acoustic input includes a voice command nor concludes that the acoustic input is the result of spurious acoustic activity.

14. (Previously presented) The method of claim 12, wherein performing the at least one first processing stage includes performing at least one voice activity detection processing stage including performing at least one of spectral analysis on the acoustic input to evaluate whether a spectrum of the acoustic input is indicative of voice activity, periodicity analysis to evaluate whether signal periodicity of the acoustic input is indicative of voice activity, and phone loop analysis to evaluate whether the acoustic input includes speech.

15. (Original) The method of claim 12, wherein performing the at least one first processing stage comprises performing limited vocabulary automatic speech recognition on the acoustic input to detect whether the acoustic input includes an explicit voice trigger.

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16. (Original) The method of claim 12, wherein performing the at least one second processing stage comprises performing at least one speech processing stage including at least one of automatic speech recognition on the acoustic input and at least one natural language processing stage to understand the meaning of the voice command.

17. (Original) The method of claim 1, wherein the mobile device is capable of connecting to at least one server via a network, the method further comprising transmitting at least a portion of the acoustic information to the at least one server via the network for processing by the at least one server.

18. (Original) The method of claim 1, further comprising performing one or more default actions when a specific task could not be ascertained from the acoustic input.

19. (Currently amended) At least one non-transitory computer readable medium encoded with instructions that, when executed on at least one processor, perform a method of monitoring an acoustic environment of a mobile device to receive acoustic input from the environment of the mobile device while the mobile device is operating in ~~a low power~~ an idle mode, the method comprising:

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the idle ~~low power~~ mode; and

while the mobile device is operating in the idle mode, using at least one contextual cue comprising information other than content of the acoustic input to assist in detecting whether the acoustic input includes a voice command.

20. (Currently amended) A mobile device comprising:

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at least one input to receive acoustic input from an environment of the mobile device while the mobile device is operating in ~~a low power~~ an idle mode;

at least one processor configured to:

detect whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the idle ~~low power~~ mode; and

while the mobile device is operating in the idle mode, use at least one contextual cue comprising information other than content of the acoustic input to assist in detecting whether the acoustic input includes a voice command.

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Doc Code: TRAN.LET
Document Description: Transmittal Letter

USED IN LIEU OF PTO/SB/21 (07-09)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	13/795,933-Conf. #2321
Filing Date	March 12, 2013
First Named Inventor	William F. Ganong, III
Art Unit	2644
Examiner Name	H. C. Ho
Attorney Docket Number	N0484.71090US01

Total Number of Pages in This Submission	14

ENCLOSURES (*Check all that apply*)

- [ ] Fee Transmittal Form
  - [ ] Fee Attached
- [x] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
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  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) (please Identify below):

  Copy of Interview Agenda

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature	/Thomas S. Chlebeck/		
Printed name	Thomas S. Chlebeck		
Date	October 30, 2015	Reg. No.	70,616

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: October 30, 2015 Signature: /Darlene J. Morin/ (Darlene J. Morin)

4233772.1

Docket No.: N0484.71090US01
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	William F. Ganong, III
Application No.:	13/795,933
Confirmation No.:	2321
Filed:	March 12, 2013
For:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
Examiner:	H. C. Ho
Art Unit:	2644

Certificate of Electronic Filing Under 37 CFR 1.8
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with 37 CFR § 1.6(a)(4).

Dated: October 30, 2015 Electronic Signature for: /Darlene J. Morin/ (Darlene J. Morin)

AMENDMENT IN RESPONSE TO NON-FINAL OFFICE ACTION UNDER 37 C.F.R. § 1.111

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

Dear Sir:

INTRODUCTORY COMMENTS

In response to the Office Action dated July 30, 2015, please amend the above-identified U.S. patent application as follows:

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

Remarks/Arguments begin on page 7 of this paper.

Electronic Acknowledgement Receipt

EFS ID:	23939601
Application Number:	13795933
International Application Number:	
Confirmation Number:	2321
Title of Invention:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
First Named Inventor/Applicant Name:	William F. Ganong
Customer Number:	91337
Filer:	Thomas Stephen Chlebeck/Darlene Morin
Filer Authorized By:	Thomas Stephen Chlebeck
Attorney Docket Number:	N0484.71090US01
Receipt Date:	30-OCT-2015
Filing Date:	12-MAR-2013
Time Stamp:	10:26:04
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	Miscellaneous Incoming Letter	N048471090US01-TRN-TSC.pdf	24457 9e3167adc4351764b9bb396dd7b497cd5d231220	no	1

Warnings:	
Information:	

2		N048471090US01-AMN-TSC.pdf	216807 af21670495595 01ef69019c5592f340771e66e1d	yes	13

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Claims	2	6
Applicant Arguments/Remarks Made in an Amendment	7	13

Warnings:	
Information:	
Total Files Size (in bytes):	241264

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

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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

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

REMARKS

In response to the Office Action dated July 30, 2015, the Assignee of the present application (Nuance Communications, Inc.) respectfully requests reconsideration. Claims 1-20 were previously pending in this application. By this amendment, claims 1, 2, 19, and 20 are amended. No claims are added or canceled. As a result, claims 1-20 are currently pending for examination, with claims 1, 19, and 20 being independent. No new matter is added.

Interview Summary

The Assignee's representatives, Thomas S. Chlebeck and Marc S. Johannes, thank Examiner Ho for his courtesy extended in granting and conducting a telephone interview on October 5, 2015 in connection with the present application. Prior to the interview, the Assignee's representatives sent a proposed interview agenda to the Examiner, a copy of which is enclosed. The substance of that interview is summarized herein.

Initially, Assignee's representatives discussed techniques described in the specification to provide examples of how one or more contextual cues may be used to assist in detecting whether acoustic input received by a mobile device in a low power mode includes a voice command. Assignee's representatives explained that for a mobile device to operate in an "always-on" mode where it continues to listen to the acoustic environment of the mobile device even when in a low power mode (e.g., an idle or sleep mode), techniques for delivering adequately low false positive and false negative rates may need to be employed to ensure sufficient responsiveness. In particular, an "always-on" mobile device should be able to accurately distinguish between spurious acoustic information in the environment of the mobile device from acoustic information that contains a voice command. To improve performance in this respect, the inventors developed techniques for using contextual cues to assist in detecting whether received acoustic input includes a voice command.

Assignee's representative then described some examples provided in the specification of how contextual cues (e.g., time, location, motion of the mobile device, recent activity, etc.) can be used to improve the mobile device's "always-on" performance. For example, the time at which acoustic input is received can be used as indication of whether acoustic input is a voice command (e.g., acoustic input received when people normally are sleeping, such as at 3 a.m.) is less likely to

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include a voice command than acoustic input received during waking hours. Location may also be used as a contextual cue since voice commands may be more likely to be spoken in some locations than others. Contextual cues may be used alone or together, for example, if the mobile device is in a car it may make it more likely that acoustic input includes a voice command even if the time suggests otherwise (e.g., during a late drive). As another example, because a user often moves a mobile device prior to speaking to it (e.g., such as when a user raises the device towards the mouth, picks up the device, etc.), motion of the device may also be used as a contextual cue to assess whether acoustic input includes a voice command. Other examples are also provided in the specification.

Thereafter, the pending rejections in view of Hung (U.S. Patent Pub. No. 2014/0012573) and Oh (U.S. Patent Pub. No. 2010/0009719) were discussed, and the Assignee's representatives identified differences between the claims and the references. In particular, Hung uses the content of the acoustic input itself to evaluate whether a voice command is present and therefore does not disclose "a contextual cue comprising information other than content of the acoustic input," as claimed and the Office Action concedes this point (see Office Action at Page 4). Regarding Oh, the hand gestures (which are not contextual cues but are commands themselves) are not utilized in an idle mode, nor are they used to assist in detecting whether acoustic input includes a voice command. Instead, the hand gestures are gestural commands to instruct the device to activate voice recognition during a call. As explained by Assignee's representative, no combination of Hung and Oh teaches each and every limitation of the claims.

The Examiner appeared to appreciate the differences identified by the Assignee's representatives. The Examiner suggested amending the claims to recite "idle mode" instead of "low power mode" and said that he would review the prior art in detail based on the explanations provided.

Rejections Under 35 U.S.C. § 103

The Office Action rejects independent claims 1, 19, and 20 under 35 U.S.C. § 103(a) as purportedly being unpatentable over Hung (U.S. Patent Pub. No. 2014/0012573) and Oh (U.S. Patent Pub. No. 2010/0009719). The Assignee respectfully requests reconsideration.

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While the Assignee believes that the previously presented claims distinguish over the alleged combination of Hung and Oh, the claims are amended herein to advance prosecution. Claim 1, as amended, recites a method of monitoring an acoustic environment of a mobile device for voice commands when the mobile device is operating in an idle mode. The method comprises:

> receiving acoustic input from the environment of the mobile device while the mobile device is operating in the idle mode;
>
> detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages is performed while the mobile device is operating in the idle mode; and
>
> ***while the mobile device is operating in the idle mode, using at least one contextual cue comprising information other than content of the acoustic input to assist in detecting whether the acoustic input includes a voice command***.

Neither Hung nor Oh, alone or in any combination, disclose or suggest at least the above emphasized limitation in claim 1. Independent claims 19 and 20 also recite the above emphasized limitation.

The Office Action concedes that Hung does not disclose at least one contextual cue comprising information other than content of the acoustic input (Office Action at page 4). Oh does not cure this deficiency. The Office Action points to the hand gestures described in Oh as allegedly disclosing the missing limitation. However, the hand gestures in Oh are not contextual cues, are not used to assist in detecting whether acoustic input includes a voice command, and are not used in an idle mode. Specifically, the hand gestures in Oh are themselves commands that are recognized by the device, not contextual cues to assist in detecting commands. Moreover, the hand gestures are not used to assist in detecting whether the acoustic input includes a voice command, but are instead used as a gestural command to instruct the device to turn on speech recognition. Finally, the hand gestures are commands that are used during a live call, not during an idle mode.

Accordingly, even if one of ordinary skill in the art would have been motivated to use the hand gestures of Oh in the system of Hung (which the Assignee does not concede or agree), the resulting combination would be nothing more than the VAD system of Hung, with the additional feature that, during a call (i.e., when not in an idle mode), the mobile device would recognize gestural commands to turn on speech recognition. The hand gestures of Oh simply are not

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contextual cues to assist in detecting whether acoustic input includes a voice command (in an idle mode or otherwise), nor can they be used in the system of Hung to do so. Thus, the resulting combination would still fail to disclose or suggest "while the mobile device is operating in the idle mode, use/using at least one contextual cue comprising information other than content of the acoustic input to assist in detecting whether the acoustic input includes a voice command," as recited in claims 1, 19, and 20. Therefore, claim 1, 19, and 20 patentably distinguish over the alleged combination and are in allowable condition. Claims 2-18 depend from claim 1 and are allowable for at least the same reasons.

General Comments on Dependent Claims

Because each of the dependent claims depends from a base claim that is believed to be in condition for allowance, the Assignee believes that it is unnecessary at this time to argue the further distinguishing features of all of the dependent claims. However, the Assignee does not necessarily concur with the interpretation of the dependent claims as set forth in the Office Action, nor does the Assignee concur that the basis for the rejection of any of the dependent claims is proper. Therefore, the Assignee reserves the right to specifically address in the future the further patentability of the dependent claims not specifically addressed herein.

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CONCLUSION

In view of the foregoing amendments and remarks, the application is believed to be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes for any reason that the application is not in condition for allowance, he is requested to contact the undersigned to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, the Assignee hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825 under Docket No. N0484.71090US01 from which the undersigned is authorized to draw.

Dated: October 30, 2015

Respectfully submitted,

By /Thomas S. Chlebeck/
Thomas S. Chlebeck
Registration No.: 70,616
Marc S. Johannes
Registration No.: 64,978
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
617.646.8000

Petitioner Exhibit 1004, Page 491 of 1518

Docket No.: N0484.71090US01
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	William F. Ganong, III
Application No.:	13/795,933
Confirmation No.:	2321
Filed:	March 12, 2013
For:	METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND
Examiner:	H. C. Ho
Art Unit:	2644

PROPOSED INTERVIEW AGENDA

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

Dear Sir:

The Assignee's representatives, Thomas S. Chlebeck and Marc S. Johannes, thank Examiner Ho for agreeing to conduct a telephone interview to discuss the outstanding Office Action dated July 30, 2015. The interview is scheduled for the following date and time, at which the undersigned will call Examiner Ho's office (571-270-1108):

Monday, October 5, 2015, at 2:00 p.m. ET.

During the telephone interview, the Assignee's representatives would like to discuss the claims and the rejections set forth in the outstanding Office Action, with the goal of advancing prosecution by developing a common understanding of the interpretation of the claims and the cited art. For example, during the interview the Assignee's representatives would like to discuss the Oh reference, and to seek clarification regarding how it is believed to relate to, for example, claims 1, 19, and 20 of the present application, especially the limitations added in the amendment filed July 14, 2015.

The Assignee's representatives appreciate the courtesies extended by the Examiner in agreeing to consider the foregoing and helping to advance prosecution of the application. If the Examiner has any questions regarding this proposed interview agenda, he is invited to call the undersigned at the telephone number listed below.

Dated: October 2, 2015

Respectfully submitted,

By /Thomas S. Chlebeck/
Thomas S. Chlebeck
Registration No.: 70,616
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Petitioner Exhibit 1004, Page 493 of 1518

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/795,933	Filing Date 03/12/2013	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)		
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (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	**10/30/2015**	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	x $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		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
/FLORENCE PATTERSON/

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.

Notice of References Cited	Application/Control No. 13/795,933	Applicant(s)/Patent Under Reexamination GANONG ET AL.	
	Examiner HUY C. HO	Art Unit 2644	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-8,977,255 B2	03-2015	Freeman; Daniel	H04W52/0254	455/425
	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

*		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.

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BIB DATA SHEET

CONFIRMATION NO. 2321

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/795,933	03/12/2013	455	2644	N0484.71090US01

APPLICANTS

Nuance Communications, Inc., Burlington, MA;

INVENTORS

William F. Ganong III, Brookline, MA;
Paul Adrian Van Mulbregt, Wayland, MA;
Vladimir Sejnoha, Lexington, MA;
Glen Wilson, Maynard, MA;

** CONTINUING DATA **********

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

** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **
04/02/2013

Foreign Priority claimed	☐ Yes ☑ No		STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119(a-d) conditions met	☐ Yes ☑ No	☐ Met after Allowance				
Verified and Acknowledged	/HUY C HO/ Examiner's Signature	HH Initials	MA	10	20	3

ADDRESS

Nuance Communications, Inc.
c/o Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, MA 02210-2206
UNITED STATES

TITLE

METHODS AND APPARATUS FOR DETECTING A VOICE COMMAND

FILING FEE RECEIVED		
1740	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

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13795933	GANONG ET AL.
	Examiner	Art Unit
	HUY C HO	2644

✓	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	09/25/2014	04/12/2015	07/24/2015	12/27/2015					
	1	✓	✓	✓	✓					
	2	✓	✓	✓	✓					
	3	✓	✓	✓	✓					
	4	✓	✓	✓	✓					
	5	✓	✓	✓	✓					
	6	✓	✓	✓	✓					
	7	✓	✓	✓	✓					
	8	✓	✓	✓	✓					
	9	✓	✓	✓	✓					
	10	✓	✓	✓	✓					
	11	✓	✓	✓	✓					
	12	✓	✓	✓	✓					
	13	✓	✓	✓	✓					
	14	✓	✓	✓	✓					
	15	✓	✓	✓	✓					
	16	✓	✓	✓	✓					
	17	✓	✓	✓	✓					
	18	✓	✓	✓	✓					
	19	✓	✓	✓	✓					
	20	✓	✓	✓	✓					

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/795,933	03/12/2013	William F. Ganong III	N0484.71090US01	2321

91337 7590 01/04/2016

Nuance Communications, Inc.
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600 Atlantic Avenue
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EXAMINER
HO, HUY C

ART UNIT	PAPER NUMBER
2644	

NOTIFICATION DATE	DELIVERY MODE
01/04/2016	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):

Patents_eOfficeAction@wolfgreenfield.com
N0484_eOfficeAction@WolfGreenfield.com
IP.Inbox@nuance.com

Office Action Summary	Application No. 13/795,933	Applicant(s) GANONG ET AL.	
	Examiner HUY C. HO	Art Unit 2644	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 *10/30/2015*.

☐ 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 *03/12/2013* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

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

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

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

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date *10/30/2015*.

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

4) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims 1, 2, 19 and 20, have been considered but are moot because the claims have been amended with new limitations. Therefore, a new ground of rejection is provided as follows.

Claim Rejections - 35 USC § 103

2. 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 negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of pre-AIA 35 U.S.C. 103(c) and potential pre-AIA 35 U.S.C. 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. 103(a).

4. Claims 1-11 and 18-20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in views of Oh et al. (U.S. Pub. No. 2010/0009719) and Freeman et al. (U.S. Pub. No. 8,977,255).

Regarding claim 1, (Currently Amended) Hung teaches a method of monitoring an acoustic environment of a mobile device for voice commands (*Hung, the Abstract*), the method comprising:

receiving acoustic input from the environment of the mobile device (*Hung, Figure 1, Paragraph(s) [22]-[24]*);

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages (*Hung, Figure 1, Paragraph(s) [22]-[24]*); and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information).*

Hung does not teach "the contextual cue comprising information other than content of the acoustic input".

Oh teaches "the contextual cue comprising information other than content of the acoustic input" (*Oh, Figure 6A, hand gestures such as hand movements approaching to the device*

causing the device to recognize the cue as the hand movement and cause the device to activate for voice recognition function).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Oh a device comprises sensors for recognizing not only voice input but also other than voice recognition contents such as body or hand motions that also causes the trigger for the device to interpret the motions to activate voice recognition function in the device, thus improving the voice recognition for mobile communication devices by taking to the next high and sophisticated level in developments for mobile communication devices in the wireless cellular technology.

Hung as modified by Oh, does not teach the mobile device operates in the idle mode.

Freeman teaches the mobile device operates in the idle mode the mobile device operates in the idle mode (*Freeman, Col. 6 Lines 48-67, Col. 7 Lines 1-14*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung and Oh, by incorporating the teachings of Freeman that a multi-function portable device using voice activation is capable of recognize voice commands from audio pickups when the

device is in the low power or in idle mode such that the device can conserve battery energy for real functioning when the device detects the voice commands in the audio pickups.

Regarding claim 19, (Currently Amended) Hung teaches at least one non-transitory computer readable medium encoded with instructions that, when executed on at least one processor, perform a method of monitoring an acoustic environment of a mobile device to receive acoustic input from the environment of the mobile device (*Hung, the Abstract, Paragraph [4]*), the method comprising:

detecting whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages (*Hung, Figure 1, Paragraph(s) [22]-[24]*); and

using at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information*).

Hung does not teach “the contextual cue comprising information other than content of the acoustic input”.

Oh teaches “the contextual cue comprising information other than content of the acoustic input” (*Oh, Figure 6A, hand*

gestures such as hand movements approaching to the device causing the device to recognize the cue as the hand movement and cause the device to activate for voice recognition function).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Oh a device comprises sensors for recognizing not only voice input but also other than voice recognition contents such as body or hand motions that also causes the trigger for the device to interpret the motions to activate voice recognition function in the device, thus improving the voice recognition for mobile communication devices by taking to the next high and sophisticated level in developments for mobile communication devices in the wireless cellular technology.

Hung as modified by Oh, does not teach the mobile device operates in the idle mode.

Freeman teaches the mobile device operates in the idle mode the mobile device operates in the idle mode (*Freeman, Col. 6 Lines 48-67, Col. 7 Lines 1-14*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung and Oh, by incorporating the teachings of Freeman that a multi-function portable device using voice activation is

capable of recognize voice commands from audio pickups when the device is in the low power or in idle mode such that the device can conserve battery energy for real functioning when the device detects the voice commands in the audio pickups.

Regarding claim 20, (Currently Amended) Hung teaches a mobile device (*Hung, the Abstract*), comprising:

at least one input to receive acoustic input from an environment of the mobile device (*Hung, Figure 1, Paragraph(s) [22]-[24]);*

at least one processor configured to:

detect whether the acoustic input includes a voice command based on performing a plurality of processing stages on the acoustic input, wherein at least one of the plurality of processing stages (*Hung, Figure 1, Paragraph(s) [22]-[24]);* and

use at least one contextual cue to assist in detecting whether the acoustic input includes a voice command (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308: performs speech recognition on the audio signal to determine whether the audio signal carries the predetermined command information).*

Hung does not teach "the contextual cue comprising information other than content of the acoustic input".

Oh teaches "the contextual cue comprising information other than content of the acoustic input" (*Oh, Figure 6A, hand*

gestures such as hand movements approaching to the device causing the device to recognize the cue as the hand movement and cause the device to activate for voice recognition function).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung by incorporating teachings of Oh a device comprises sensors for recognizing not only voice input but also other than voice recognition contents such as body or hand motions that also causes the trigger for the device to interpret the motions to activate voice recognition function in the device, thus improving the voice recognition for mobile communication devices by taking to the next high and sophisticated level in developments for mobile communication devices in the wireless cellular technology.

Hung as modified by Oh, does not teach the mobile device operates in the idle mode.

Freeman teaches the mobile device operates in the idle mode the mobile device operates in the idle mode (*Freeman, Col. 6 Lines 48-67, Col. 7 Lines 1-14*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung and Oh, by incorporating the teachings of Freeman that a multi-function portable device using voice activation is

capable of recognize voice commands from audio pickups when the device is in the low power or in idle mode such that the device can conserve battery energy for real functioning when the device detects the voice commands in the audio pickups.

Regarding claim 2, (Currently Amended) Hung, as modified by Oh and Freeman, teaches the method of claim 1, further comprising transitioning the mobile device from the idle mode to an active mode when it is detected that the acoustic input includes a voice command (*Hung, Figure 1, Step 212)*.

Regarding claim 3, (Original) Hung, as modified by Oh and Freeman, teaches the method of claim 1, wherein the at least one contextual cue includes at least one of a time the acoustic input was received, motion of the mobile device, location of the mobile device, occurrence of an event on the mobile device, recent activity on the mobile device, a stored sample of the acoustic environment of the mobile device, and a power source of the mobile device (*Hung, Figure 1, Paragraph(s) [22]-[23]*).

Regarding claim 4, (Original) Hung, as modified by Oh and Freeman, teaches the method of claim 3, wherein the at least one contextual cue includes the time the acoustic input was received, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on the time the acoustic input was received (*Hung, Figure 1,*

Paragraph(s) [22]-[23]).

Regarding claim 5, (Original) Hung, as modified by Oh and Freeman, teaches the method of claim 3, wherein the at least one contextual cue includes recent activity on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of how recently the user activated the mobile device, how recently the user issued a voice command and how recently the user performed at least one action on the mobile device (*Hung, Paragraph(s) [21]-[23])*.

Regarding claim 6, (Original) Hung, as modified by Oh and Freeman, teaches the method of claim 3, wherein the at least one contextual cue includes an occurrence of an event on the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on whether the acoustic input is received proximate in time with the occurrence of the event (*Hung, Paragraph(s) [21]-[23])*.

Regarding claim 7, (Original) Hung, as modified by Oh and Freeman, teaches the method of claim 3, wherein the at least one contextual cue includes motion of the mobile device received as an input from an accelerometer of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on an assessment of whether

the user moved the mobile device proximate in time with receiving the acoustic input based, at least in part, on the input from the accelerometer (*Oh, Figure 6A, Paragraph [55]*).

Regarding claim 8, (Original) Hung, as modified by Oh and Freeman, teaches the method of claim 3, wherein the at least one contextual cue includes the location of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on determining whether the mobile device is located in at least one of a vehicle, a home or a place of work of the user of the mobile device (*Freeman, Figure 9E, Col. 10 Lines 60-67, Col. 11 Lines 1-23*).

Regarding claim 9, (Original) Hung, as modified by Oh and Freeman, teaches the method of claim 3, wherein the at least one contextual cue includes the power source of the mobile device, the method further comprising influencing evaluation of at least one of the plurality of processing stages based on at least one of determining whether the mobile device is being powered using the battery or connected to wall power, and a state of the battery if the mobile device is being powered using the battery (*Hung, Paragraph(s) [4]-[6]*).

Regarding claim 10, (Original) Hung, as modified by Oh and Freeman, teaches the method of claim 3, wherein the at least one

contextual cue includes the sample of the acoustic environment obtained by the mobile device by storing acoustic input previously received by the mobile device and determined not to include a voice command, the method further comprising subtracting the sample of the acoustic environment from the acoustic input (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 11, (Original) Hung, as modified by Oh and Freeman, teaches the method of claim 1, wherein a sequence of performing the plurality of processing stages is determined, at least in part, by the at least one contextual cue (*Hung, Paragraph(s) [21]-[23]*).

Regarding claim 18, (Original) Hung teaches the method of claim 1, further comprising performing one or more default actions when a specific task could not be ascertained from the acoustic input (*Hung, Paragraph(s) [21]-[23]*).

5. Claims 12-16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in views of Oh et al. (U.S. Pub. No. 2010/0009719), Freeman et al. (U.S. Pub. No. 8,977,255) and Newman (U.S. Pub. No. 2013/0289994).

Regarding claim 12, (Original) The method of claim 1, wherein the mobile device includes a primary processor and a

secondary processor, and wherein at least one first processing stage of the plurality of processing stages is performed by the secondary processor prior to engaging the primary processor to process the acoustic input.

Hung, as modified by Oh and Freeman, does not teach "the mobile device includes a primary processor and a secondary processor".

Newman teaches "the mobile device includes a primary processor and a secondary processor" (*Newman, the Abstract, Paragraph [8]*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Hung, Oh and Freeman, by incorporating teachings of Newman the technique used in an mobile communication device including two processing controllers, i.e., a main CPU controller and a secondary DSP controller, wherein the DSP controller is used for picking up voice and speech recognition at a lower power consumption to conserve battery power for the main CPU controller when the main controller is in inactive mode. The two processing controllers are configured to improve battery energy conservation for a mobile communication device during voice and speech recognition.

Regarding claim 13, (Original) Hung, as modified by Oh, Freeman and Newman, teaches the method of claim 12, wherein at least one second processing stage of the plurality of processing stages is performed by the primary processor only after the at least one first processing stage is performed and neither concludes that the acoustic input includes a voice command nor concludes that the acoustic input is the result of spurious acoustic activity (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 14, (Previously Presented) Hung, as modified by Oh, Freeman and Newman, teaches the method of claim 12, wherein performing the at least one first processing stage includes performing at least one voice activity detection processing stage including performing at least one of spectral analysis on the acoustic input to evaluate whether a spectrum of the acoustic input is indicative of voice activity, periodicity analysis to evaluate whether signal periodicity of the acoustic input is indicative of voice activity, and phone loop analysis to evaluate whether the acoustic input includes speech (*Hung, Figure 3, Paragraph(s) [37]-[43]*).

Regarding claim 15, (Original) Hung, as modified by Oh, Freeman and Newman, teaches the method of claim 12, wherein performing the at least one first processing stage comprises performing limited vocabulary automatic speech recognition on

the acoustic input to detect whether the acoustic input includes an explicit voice trigger (*Hung, Figure 3, Paragraph(s) [37]-[43], Step 308)*.

Regarding claim 16, (Original) Hung, as modified by Oh, Freeman and Newman, teaches the method of claim 12, wherein performing the at least one second processing stage comprises performing at least one speech processing stage including at least one of automatic speech recognition on the acoustic input and at least one natural language processing stage to understand the meaning of the voice command (*Hung, Figure 3, Paragraph(s) [37]-[43])*.

6. Claim 17 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Hung et al. (U.S. Pub. No. 2014/0012573) and further in views of Oh et al. (U.S. Pub. No. 2010/0009719), Freeman et al. (U.S. Pub. No. 8,977,255) and Mozer et al. (U.S. Pub. No. 2013/0080171).

Regarding claim 17, (Original) The method of claim 1, wherein the mobile device is capable of connecting to at least one server via a network, the method further comprising transmitting at least a portion of the acoustic information to the at least one server via the network for processing by the at least one server.