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NOTICE OF ALLOWANCE AND FEE(S) DUE

136714 7590 07/27/2017

Pierce Atwood LLP
Attn: Patent Docketing (Amazon)
100 Summer Street
Suite 2250
Boston, MA 02110

EXAMINER
TZENG, FENG-TZER

ART UNIT	PAPER NUMBER
2659	

DATE MAILED: 07/27/2017

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/096,623	12/04/2013	Ronald Joseph Degges JR.	P12926	8841

TITLE OF INVENTION: MATCHING OUTPUT VOLUME TO A COMMAND VOLUME

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	10/27/2017

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

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

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

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

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

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

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

PTOL-85 (Rev. 02/11)

PART B - FEE(S) TRANSMITTAL

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

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

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

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Pierce Atwood LLP
Attn: Patent Docketing (Amazon)
100 Summer Street
Suite 2250
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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

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

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

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nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	10/27/2017

EXAMINER	ART UNIT	CLASS-SUBCLASS
TZENG, FENG-TZER	2659	704-275000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

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

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

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

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

4a. The following fee(s) are submitted:
❑ Issue Fee
❑ Publication Fee (No small entity discount permitted)
❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): (**Please first reapply any previously paid issue fee shown above**)
❑ A check is enclosed.
❑ Payment by credit card. Form PTO-2038 is attached.
❑ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
❑ Applicant certifying micro entity status. See 37 CFR 1.29
NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
❑ Applicant asserting small entity status. See 37 CFR 1.27
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
❑ Applicant changing to regular undiscounted fee status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

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

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

PTOL-85 Part B (10-13) Approved for use through 10/31/2013. OMB 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

UNITED STATES PATENT AND TRADEMARK OFFICE

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

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

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

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

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

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

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 14/096,623	Applicant(s) DEGGES ET AL.	
	Examiner FORREST F. TZENG	Art Unit 2659	AIA (First Inventor to File) Status Yes

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

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amendments filed on 3/13/2017*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are *1-12 and 21-29*. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

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

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☒ Examiner's Amendment/Comment
6. ☒ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

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

DETAILED ACTION

1. This communication is in response to the Amendments and Arguments filed on 3/13/2017. Claims 1-12, 21-29 are pending and have been examined. Claims 13-20 are cancelled.

2. All previous objections and rejections directed to the applicant's disclosure and claims not discussed in this Office action have been withdrawn by the examiner.

Examiner's Amendment

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

Authorization for this examiner's amendment was confirmed by Ilan Barzilay (Reg. # 46,540) on July 21, 2017. The application has been amended as follows:

1. (Currently Amended) A computer-implemented method, comprising:

outputting a first audio via at least one speaker;

capturing a second audio via at least one microphone;

generating audio data corresponding to a representation of the first audio removed from the second audio;

performing speech recognition processing on the audio data;

determining, based on the speech recognition processing, that the audio data corresponds to an utterance of a volume change command to match a volume of output audio to an estimated volume of the utterance;

determining [[an]] the estimated volume of the utterance, wherein the estimated volume ~~corresponds to at a location a distance away from~~ is calculated based on an estimated loss of

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Google v. SoundClear - IPR2025-01177

intensity of the utterance from a first location where the utterance was spoken to a second location of the at least one microphone ~~where the utterance was vocalized~~; and

outputting, via the at least one speaker, a third audio at the estimated volume.

2. (Previously Presented) The computer-implemented method of claim 1, wherein the estimated volume is estimated based on an average of an amplitude of the audio data over a duration of the utterance.

3. (Previously Presented) The computer-implemented method of claim 1, further comprising:

determining acoustic characteristics for calibration by outputting sounds at a plurality of frequencies within a range of human speech and capturing the output sounds; and

calculating a pitch of the audio data,

wherein determining the estimated volume includes compensating for the acoustic characteristics based on the pitch.

4. (Currently Amended) The computer-implemented method of claim 1, wherein the at least one microphone is a plurality of microphones, the method further comprising:

performing acoustic localization to ~~calculate the~~ estimate a distance from the first location to the second location based at least in part on differences between second audio captured by each of the plurality of microphones,

wherein determining the estimated volume includes compensating for the distance.

5. (Currently Amended) A computing device, comprising:

at least one processor;

memory including instructions operable to be executed by the at least one processor to perform a set of actions, configuring the at least one processor to:

receive an input audio signal generated by a microphone at a first location, the input audio signal representing audio originating at a second location a distance away from the first location;

perform speech recognition processing on the input audio signal;

determine, based on the speech recognition processing, that the input audio signal corresponds to an utterance of a ~~volume change~~ command to match a volume of output audio to a volume of the utterance;

determine an estimated sound intensity of the audio, wherein the estimated sound intensity is calculated based on an estimated loss of intensity of the audio from the second location to the first location ~~corresponds to a sound intensity of the audio at the location~~; and

~~determine an output audio signal based on~~ causing output audio to be output at the estimated sound intensity.

6. (Currently Amended) The computing device of claim 5, wherein the instructions to determine the estimated sound intensity further include instructions to determine the estimated sound intensity based at least in part on an average of an amplitude of the input audio signal.

7. (Previously Presented) The computing device of claim 5, wherein the instructions to determine the estimated sound intensity further include instructions to determine the estimated sound intensity based on a maximum of an amplitude of the input audio signal.

8. (Currently Amended) The computing device of claim 5, the instructions further configuring the at least one processor to calibrate at least a maximum intensity of the output audio ~~signal~~, as output by a first audio output device, based on an amplitude of at least one received audio reference signal.

9. (Currently Amended) The computing device of claim 5, the instructions further configuring the at least one processor to:

determine a pitch of the input audio signal of the command, and

~~wherein the instructions to determine the output audio signal further include instructions to determine~~ adjust a volume of the output audio ~~signal~~ based on the pitch and the distance.

10. (Currently Amended) The computing device of claim 5, the instructions further configuring the at least one processor to:

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Google v. SoundClear - IPR2025-01177

estimate a value corresponding to [[a]] the distance ~~between a user uttering the volume change command and an audio capture device~~,

wherein the instructions to determine the estimated sound intensity ~~output audio signal~~ further include instructions to determine the estimated sound intensity ~~output audio signal~~ based on the value.

11. (Previously Presented) The computing device of claim 10, wherein the audio capture device comprises a plurality of microphones, and the instructions further configure the at least one processor to:

perform acoustic localization based on differences between captured sound as captured by each of the plurality of microphones,

wherein the instructions to estimate the value further include instructions to estimate the value based at least in part on the acoustic localization.

12. (Previously Presented) The computing device of claim 5, the instructions further configuring the at least one processor to:

calculate a value corresponding to ambient background noise included in the input audio signal,

wherein the instructions to determine the output audio signal further include instructions to determine the output audio signal.

13.-20. (Canceled)

21. (Currently Amended) A computer-implemented method, comprising:

receiving an input audio signal generated by a microphone at a first location, the input audio signal representing audio originating at a second location a distance away from the first location;

performing speech recognition processing on the input audio signal;

determining, based on the speech recognition processing, that the input audio signal corresponds to an utterance of a ~~volume change~~ command to match a volume of output audio to a volume of the utterance ~~in the audio data~~;

SoundClear Exhibit 2026
Google v. SoundClear - IPR2025-01177

determining an estimated sound intensity of the audio, wherein the estimated sound intensity is calculated based on an estimated loss of intensity of the audio from the second location to the first location ~~corresponds to a sound intensity of the audio at the location~~; and

~~determining an output audio signal based on~~ causing output audio to be output at the estimated sound intensity.

22. (Previously Presented) The computer-implemented method of claim 21, further comprising:

determining the estimated sound intensity based at least in part on an average of an amplitude of the input audio signal.

23. (Previously Presented) The computer-implemented method of claim 21, further comprising:

determining the estimated sound intensity based on a maximum of an amplitude of the input audio signal.

24. (Currently Amended) The computer-implemented method of claim 21, further comprising:

calibrating at least a maximum intensity of the output audio ~~signal~~, as output by a first audio output device, based on an amplitude of at least one received audio reference signal.

25. (Currently Amended) The computer-implemented method of claim 21, further comprising:

determining a pitch of the input audio signal of the command; and

~~determining~~ adjusting a volume of the output audio signal based on the pitch and the distance.

26. (Currently Amended) The computer-implemented method of claim 21, further comprising:

estimating a value corresponding to [[a]] the distance ~~between a user uttering the volume change command and an audio capture device~~; and

determining the output audio ~~signal~~ based on the value.

27. (Previously Presented) The computer-implemented method of claim 26, wherein [[the]] an audio capture device comprises a plurality of microphones including the microphone, and wherein the computer-implemented method further comprises:

performing acoustic localization based on differences between captured sound as captured by each of the plurality of microphones; and

estimating the value based at least in part on the acoustic localization.

28. (Currently Amended) The computer-implemented method of claim 21, further comprising:

calculating a value corresponding to ambient background noise included in the input audio signal; and

determining the output audio ~~signal~~ based at least in part on the value.

29. (Currently Amended) The computing device of claim 5, wherein the ~~volume change~~ command comprises a wakeword portion and a command portion.

Reasons for Allowance

4. Claims 1-12, 21-29 are allowable. The following is the examiner's statement of reason for allowance:

The closest prior art of record cited are: IYER (US 20140372109; Title: Smart volume control of device audio output based on received audio input), POPOVA (US 20150010169; Title: Apparatus, systems and methods for adjusting output audio volume based on user location), HAULICK (US 20080285772; Title: ACOUSTIC LOCALIZATION OF A SPEAKER), and ANDERSON (US 20140044269; Title: Intelligent Ambient Sound Monitoring System).

SoundClear Exhibit 2026
Google v. SoundClear - IPR2025-01177

In particular, IYER teaches: [0043] "configures the device to correlate the audio output volume level with the audio input volume level reported from the microphone" and [0038] "determine .. an average volume of the spoken command (within the received audio input)" and [0040] "match the received audio input to one of a plurality of recognizable voice commands." POPOVA teaches: [Abstract] "increases the output audio volume level when the detected user movement is away from a predefined location .. decreases the output audio volume level when the detected user movement is closer to the predefined location" and [0009] "FIG. 3 is a graph illustrating relationship between output audio volume level and distance from the audio output source." HAULICK teaches: [0006] "determines .. the speaker's distance from the microphone array" and [0025] "Acoustic localization of a speaker may be based on the measurement of transmission time differences between sound waves from a common acoustic source." ANDERSON teaches: [0020] "the sound received by microphone is representative of the user's ambient sound environment" and [0025] "the preset sound level may be based on <read on adjusting the intensity of the output audio signal> an average of background sound level."

None of the above mentioned references either alone or in combination thereof teaches or makes obvious the specific limitations stated in the amended independent claim 1 (and similarly in claims 5, 21). In particular: "performing speech recognition processing on the audio data .. determining, based on the speech recognition processing, that the audio data corresponds to an utterance of a volume change command to match a volume of output audio to an estimated volume of the utterance .. determining the estimated volume of the utterance, wherein the estimated volume corresponds to the utterance at a location a propagation distance away from the

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Google v. SoundClear - IPR2025-01177

at least one microphone where the utterance was received; and outputting, via the at least one speaker, third audio at the estimated volume."

Any comments considered necessary by the applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FORREST F. TZENG whose telephone number is 571-272-4609. The examiner can normally be reached on M-F (8:00-5:30). The fax phone number where this application or proceeding is assigned is 571-273-4609.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre-Louis Desir (SPE) can be reached on 571-272-7799.

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.

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/FORREST F TZENG/
Examiner, Art Unit 2659 7/21/2017

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

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