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EXAMINER	
STRANGE, AARON N	

ART UNIT	PAPER NUMBER
2419	

NOTIFICATION DATE	DELIVERY MODE
11/02/2020	ELECTRONIC

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

The time period for reply, if any, is set in the attached communication.

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

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Office Action Summary	Application No. 16/582,849	Applicant(s) Mitchell, Cameron P.	
	Examiner AARON N STRANGE	Art Unit 2419	AIA (FITF) Status Yes

-- 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 9/25/2019.

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

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-20 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5a) Of the above claim(s) _____ is/are withdrawn from consideration.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 9/25/2019 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

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

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

Priority under 35 U.S.C. § 119

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

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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

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

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

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

Attachment(s)

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

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

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

4) ☐ Other: _____.

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

2. The Examiner recommends filing a written authorization for Internet communication in response to the present action. Doing so permits the USPTO to communicate with Applicant using Internet email to schedule interviews or discuss other aspects of the application. Without a written authorization in place, the USPTO cannot respond to Internet correspondence received from Applicant. The preferred method of providing authorization is by filing form PTO/SB/439, available at: https://www.uspto.gov/patent/forms/forms. See MPEP § 502.03 for other methods of providing written authorization.

3. In the interest of expedited prosecution, the Examiner would like to recommend conducting an interview prior to filing a response to the present Office action. The Examiner feels an interview would help foster a mutual understanding of the respective positions of Applicant and the Examiner, and assist in the identification of allowable subject matter and/or issues for appeal. If Applicant agrees an interview would be beneficial, he/she is encouraged to contact the Examiner to schedule one.

Claim Rejections - 35 USC § 101

4. 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.

5. Claims 1–20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

6. Claims 1–20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to an abstract idea without significantly more. Independent claims 1, 10, and 16 recite receiving a message input, processing the message with natural language processing, generating a score for the message, determining the score exceeds a threshold, selecting a remedial action to perform, and performing the remedial action on a message.

The specification describes the claimed system as providing an avenue for performing mediation as an alternative to in-person mediation services (Spec. ¶16) and also provides for participation in the mediation by a human participant (¶37; ¶82). In light of the specification, the recited steps of receiving and processing a message to generate a score, identify a remedial action, and perform the remedial action fall within the group of "[c]ertain methods of organizing human activity" set forth in the USPTO's January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (84 FR 50). Specifically, the claims set forth a method of "managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions") since they recite a method for facilitating or conducting a mediation session between human participants, thereby managing a personal relationship between those individuals. Accordingly, the claims recite an abstract idea.

This judicial exception is not integrated into a practical application because the claims only recite a "device or "one or more processors" for performing each step of the claims. These elements are recited at a high-level of generality, amounting to no more than mere instructions to implement the abstract idea on a generic computers. Accordingly, these additional elements do not integrate the abstract idea into a practical application because they do not impose any meaningful limits on practicing the abstract idea.

The claims also do not include additional elements that are sufficient to amount to significantly more than the judicial exception. The dependent claims merely set forth additional details of the abstract idea and fail to recite additional elements sufficient to integrate the

abstract idea into a practical application or amount to significantly more than the judicial exception. As discussed above with respect to integration of the abstract idea into a practical application, the additional elements of using a "device" or "processors" to perform the steps of the method amounts to no more than mere instructions to apply the abstract idea using a generic computer. Mere instructions to apply an abstract idea using a generic computer cannot provide an inventive concept. Therefore, claims 1–20 are not patent eligible.

7. Claims 1–20 are additionally rejected under 35 U.S.C. 101 because the recited steps of generating a score for the message, determining the score exceeds a threshold, and selecting a remedial action to perform fall within the group of "mental processes" set forth in the USPTO's January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (84 FR 50). Generating a score, comparing the score to a threshold, and selecting a remedial action to perform are activities that may be performed solely in the human mind. Accordingly, the claims recite an abstract idea.

Independent claims 1, 10, and 16 recite the additional elements of receiving a message input, utilizing natural language processing to determine an intent of the message, and performing the selected remedial action on the message. Receiving the message and performing the remedial action are insignificant extra-solution activity simply gathering the data to analyze and outputting the result of the abstract idea. The use of natural language processing to determine an intent of the message is recited at a high-level of generality, merely reciting use of a known technology to perform its intended function. Therefore, so the additional elements amount to no more than mere instructions to implement the abstract idea on a generic computer performing well-understood, routine, conventional activities. Independent claim 1 specifically recites the additional elements of a "one or more processors," also recited at a high-level of generality, and similarly amounts to no more than mere instructions to implement the

abstract idea on a generic computer. Accordingly, these additional elements do not integrate the abstract idea into a practical application.

The claims also do not include additional elements that are sufficient to amount to significantly more than the judicial exception. As discussed above with respect to integration of the abstract idea into a practical application, the additional elements of receiving the message and performing the remedial action are insignificant extra-solution activity, the use of natural language processing simply appends well-understood, routine, conventional activities to the abstract idea, and the recitation of "processors" amounts to no more than mere instructions to apply the abstract idea using a generic computer. The dependent claims merely set forth additional details of the abstract idea and also fail to recite additional elements sufficient to integrate the abstract idea into a practical application or amount to significantly more than the judicial exception. Therefore, claims 1–20 are not patent eligible.

Claim Rejections - 35 USC § 112

8. The following is a quotation of 35 U.S.C. 112(b):

> (b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

> The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 3, 4, 12, 13, 18, and 19 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor (or for applications subject to pre-AIA 35 U.S.C. 112, the applicant), regards as the invention.

10. Claims 3, 4, 12, 13, 18, and 19 each recite the limitation "mediation parameter data" in the last line of each claim. There is insufficient antecedent basis for this limitation in the claim.

It appears this was intended to recite "mediation parameter information" and has been interpreted as such for the purpose of applying prior art.

Claim Rejections - 35 USC § 103

11. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

12. Note: When dependent claims are rejected without explicitly setting forth a separate rationale to combine, the limitations therein were determined to set forth additional details of an element present in a respective parent claim and the rationale for combining the cited teaching with the primary reference mirrors the rationale(s) set forth in the respective parent claim(s).

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

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1, 2, 6–11, 14–17, and 20 are rejected under 35 U.S.C. 103 as being unpatentable over Egenthal (US 2019/0102848) in view of Barsness et al. (US 2018/0006979).

15. With regard to claim 1, Egenthal discloses a device, comprising:

a non-transitory computer-readable medium storing a set of processor-executable instructions (software portions of the system may be stored in computer readable mediums)(¶131); and

one or more processors configured to execute the set of processor-executable instructions (software functions may be executed by processors)(¶131), wherein executing the set of processor-executable instructions causes the one or more processors to:

receive a message input at a user equipment (user may input a dispute, including relevant information and documentation via a smart device)(¶34; ¶47–48).

Egenthal fails to specifically disclose utilizing natural language processing to determine an intent of the message, generating a score for the message based on the intent of the message, determining that the score exceeds one or more threshold scores, out of a plurality of threshold scores, selecting a remedial measure, out of a plurality of candidate remedial measures, to perform on the message based on the determined threshold scores exceeded by the generated score of the message and performing the selected remedial measure on the message.

Barsness discloses a similar system for electronic communications (¶15). Barsness teaches utilizing natural language processing to determine an intent of the message (NLP may be used to analyze messages for various factors, including grammar, vocabulary, tone and/or sentiment)(¶15; ¶18), generating a score for the message based on the intent of the message (scores, such as a grammar score or sophistication level, may be calculated based on the analysis)(¶18), determining that the score exceeds one or more threshold scores, out of a plurality of threshold scores (scores are compared to similar scores of the intended message recipient(s) to determine if there are significant differences above a pre-determined threshold difference)(¶19–21), selecting a remedial measure, out of a plurality of candidate remedial measures, to perform on the message based on the determined threshold scores exceeded by the generated score of the message (messages may be corrected to improve grammar, simplify

the vocabulary, or soften sentiment as needed)(¶33; ¶39) and performing the selected remedial measure on the message (messages may be corrected to improve grammar, simplify the vocabulary, or soften sentiment)(¶33; ¶39).

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to perform natural language processing to determine an intent of the message, generate a score for the message and select one or more remedial actions to perform on the message if the score exceeded a threshold score in order to modify messages to improve communication by matching communication styles and preferences of users in the mediation system of Egenthal, helping users to effectively communicate and resolve their disputes.

16. With regard to claim 2, Barsness further discloses scoring the message by comparing segments of phrases and/or words in the message to a data repository containing phrases and/or words (vocabulary level may be based in part on the presence of esoteric words stored in a table)(¶33).

17. With regard to claim 6, Barsness discloses associating the each of the determined plurality of message score thresholds with the each of the plurality of candidate remedial measures (e.g., grammar score and vocabulary level may independently trigger different remedial actions)(¶18; ¶33).

18. With regard to claim 7, Barsness discloses the UE is a first UE, wherein executing the processor- executable instructions further causes the one or more processors to: send, via a network, the message to a second UE after performing the selected remedial measure (modified message is delivered to the recipient)(¶17; ¶35).

19. With regard to claim 8, Barsness the selected remedial measure is a first remedial measure (e.g., grammar correction)(¶18; ¶33), wherein executing the processor-executable instructions further causes the one or more processors to: after performing the first remedial measure, generate a new score for the message based on the intent of the message (e.g., vocabulary level)(¶18); determine that the new score exceeds one or more threshold scores, out of a plurality of threshold scores (¶18; ¶33); select a second remedial measure, out of a plurality of candidate remedial measures, to perform on the message based on which threshold scores are exceeded by the generated new score of the message; and perform the selected second remedial measure on the message (multiple remedial actions may be selected based on scores associated with different analysis factors, such as grammar score and vocabulary level)(¶18; ¶33).

20. With regard to claim 9, Barsness discloses identifying information regarding a plurality of phrases or words, the information including, for a particular phrase or word, of the plurality of phrases or words, at least one of: an intent of a particular phrase or word, a score for the phrase and/or word, or alternative phrases or words for the particular phrase or word; and compare the information regarding the plurality of phrases or words with the received message (slang terms and esoteric words are identified along with potential substitute terms)(¶22; ¶33).

21. Claims 10, 11, 14–17, and 20 are rejected under the same rationale as claims 1, 2, 8, and 9, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are explicitly or inherently taught by the above cited art.

22. Claims 3, 4, 12, 13, 18, and 19 are rejected under 35 U.S.C. 103 as being unpatentable over Egenthal in view of Barsness further in view of Barve et al. (US 2019/0052584).

23. With regard to claim 3, while the system disclosed by Egenthal in view of Barsness shows substantial features of the claimed invention (discussed above), including receiving mediation parameter information and mediation participant data (information about the participants, facts of the dispute, and information exchanged by the parties is collected) (Egenthal; ¶48–50; ¶55), it fails to specifically disclose determining a mediation temperature level by analyzing the received mediation participant data or the received mediation parameter data.

Barve discloses a similar system for analyzing messages for sentiment and comparing results to a threshold value (Abstract). Barve teaches determining a temperature level by analyzing participant data, including messages sent by a participant in a conversation session to identify a cumulative sentiment count (¶35; ¶47). Upon reaching a threshold value, the conversation is identified for transfer to an appropriate agent (¶48). This would have been an advantageous addition to the system disclosed by Egenthal in view of Barsness since it would have allowed the state of a mediation to be considered when identifying an appropriate mediator to handle or continue the mediation.

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to determine a mediation temperature level by analyzing the received mediation participant data or the received mediation parameter data to help identify an appropriate mediator to handle or continue the session in the event of a temperature change for the mediation.

24. With regard to claim 4, Barsness further discloses determining the plurality of message score thresholds by analyzing at least one of: the received mediation parameter data; the received mediation participant data (thresholds are identified based on the difference between the message originator and recipient(s))(¶33); or the determined mediation temperature level.

25. Claims 12, 13, 18, and 19 are rejected under the same rationale as claims 3 and 4, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are explicitly or inherently taught by the above cited art.

26. Claim 5 is rejected under 35 U.S.C. 103 as being unpatentable over Egenthal in view of Barsness further in view of Ailii et al. (US 2018/0089572).

27. With regard to claim 5, while the system disclosed by Egenthal in view of Barsness shows substantial features of the claimed invention (discussed above), including determining whether ambiguous language is present in the message (message may be analyzed for ambiguous statements)(¶37) and substituting, in the message, the identified ambiguous language with the received explanatory language (unclear wording may be replaced with more specific wording)(¶39), it fails to specifically disclose querying a participant associated with the UE regarding the determined ambiguous language in the message an receiving explanatory language from the participant associated with the UE regarding the determined ambiguous language.

Aili discloses a similar system for performing natural language analysis in a computer environment (Abstract; ¶3). Aili teaches determining whether ambiguous language is present in a message, querying a participant associated with the UE regarding the determined ambiguous language in the message and receiving explanatory language from the participant associated with the UE regarding the determined ambiguous language (users are sent a disambiguation reqeust asking to clarify a prior message when needed)(¶92–93). This would have been an advantageous addition to the system disclosed by Egenthal in view of Barsness since it would

have allowed users to provide appropriate context or explanation to previous messages, reducing misunderstanding and improving communication during the mediation process.

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to query a participant associated with the UE regarding ambiguous language determined to be in a message and receive explanatory language from the participant associated with the UE regarding the determined ambiguous language in order to ensure understanding and clarity of communications during the mediation process.

Conclusion

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

a. Kilbaner (US 2002/0161597) discloses a similar system for online dispute resolution using a mediator (*See e.g.*, Abstract; ¶27–29).

b. Vaidyanathan et al. (US 2004/0059596) also discloses a similar system for automated dispute resolution in an online environment (*See e.g.*, Abstract; ¶10).

c. Doyle (US 2020/0125928) discloses a similar system for analyzing text usinf natural languge processing to determine whether the identified text is offensive (*See e.g.*, Abstract; ¶7).

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON N STRANGE whose telephone number is (571)272-3959. The examiner can normally be reached on M-F 9:00-5:00.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is

encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hadi Armouche can be reached on 571-270-3618. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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

/AARON N STRANGE/
Primary Examiner, Art Unit 2419

REMARKS

In the Office Action:

- claims 1-20 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter;
- claims 3, 4, 12, 13, 18, and 19 are rejected under 35 U.S.C. § 112(b), as failing to particularly point out and distinctly claim the subject matter;
- claims 1, 2, 6-11, 14-17, and 20 are rejected under 35 U.S.C. § 103 as unpatentable over Egenthal[1] and Barsness;[2]
- claims 3, 4, 12, 13, 18, and 19 are rejected under 35 U.S.C. § 103 as unpatentable over Egenthal, Barsness, and Barve;[3] and
- claim 5 is rejected under 35 U.S.C. § 103 as unpatentable over Egenthal, Barsness, and Aili.[4]

Applicant respectfully traverses the rejections. By way of the present amendment, Applicant amends claims 1-4, 7, 9-13, and 16-20 to improve form, cancels claims 5 and 14 without prejudice or disclaimer of the subject matter thereof, and adds new claims 21 and 22. No new matter is added by way of the present amendment. Claims 1-4, 6-13, and 15-22 are pending.

Applicant's statement of substance of interview

Applicant submits that an Examiner Interview took place on January 6, 2021, between Examiner Aaron Strange and Applicant's representative, Sadiq Ansari. Applicant thanks the Examiner for the courtesies extended during the interview. During the interview, Applicant's representative and the Examiner discussed proposed amendments, which the Examiner indicated appear to overcome the present rejections (*e.g.*, the rejections under 35 U.S.C. §§ 101 and 103). However, the Examiner indicated that further search or consideration may be needed before a determination of allowability. Applicant submits that the amendments, made herein, are in line with the amendments discussed during the Examiner Interview. The Examiner additionally agreed to contact Applicant's representative, prior to preparing another Office Action, if the Examiner believes that any of the previous rejections should be maintained.

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[1] U.S. Patent Application Publication No. 2019/0102848.

[2] U.S. Patent Application Publication No. 2018/0006979.

[3] U.S. Patent Application Publication No. 2019/0052584.

[4] U.S. Patent Application Publication No. 2018/0089572.

Rejection under 35 U.S.C. § 101

Pending claims 1-4, 6-13, and 15-20 stand rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Without acquiescing in this rejection, and as discussed during the Examiner Interview, Applicant submits that claims 1-4, 6-13, and 15-20, as presented herein, address the concerns expressed in the Office Action.

Additionally, as stated in the 2019 Revised Patent Subject Matter Eligibility Guidance,[5] "[i]f the claim does not recite a judicial exception (a law of nature, natural phenomenon, or subject matter within the enumerated groupings of abstract ideas in Section I), then the claim is eligible at Prong One of revised Step 2A." These groupings are as follows:

> (a) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;
>
> (b) Certain methods of organizing human activity—fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions); and
>
> (c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).

None of the enumerated groupings appear to apply to, for example, amended claim 1.[6] For example, while the Office Action characterizes claim 1, as previously presented, as a "mental process,"[7] Applicant respectfully submits that at least the claimed modification of a message, received from a UE, and the outputting of the modified message to a recipient UE, as recited in claim 1, are not a "mental process."

Further, Applicant notes that the pending claims are not "directed to" an abstract idea. The Guidance further states that "[i]f the recited exception is integrated into a practical application of the exception, then the claim is eligible at Prong Two of revised Step 2A. This concludes the eligibility analysis." This Guidance further states that "[a] claim that integrates a judicial exception into a practical application will apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception."

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[5] While Applicant appreciates that the Guidance was issued after the Office Action, Applicant submits that the guidelines set forth in the Guidance are nonetheless applicable.

[6] Claim 1 is discussed here as a representative claim for the set of claims; similar remarks apply for independent claims 8 and 15, and any applicable dependent claims.

[7] *See, e.g.*, Office Action at 2-5.

In claim 1, for instance, the claimed features provide for enhanced messaging between UEs.[8] Without acquiescing that any portion of the claim recites a judicial exception, Applicant submits that the claim is not "directed to" such alleged judicial exception for at least the reason that the claim as a whole recites a practical application of the alleged judicial exception by limiting the alleged judicial exception to, for example, the features summarized above.[9]

Further still, without acquiescing that the claim recites (or is directed to) a judicial exception, Applicant submits that claim 1 provides an inventive concept. As stated in the Guidance, "if a claim has been determined to be directed to a judicial exception under revised Step 2A, examiners should then evaluate the additional elements individually and in combination under Step 2B to determine whether they provide an inventive concept (i.e., whether the additional elements amount to significantly more than the exception itself)." For instance, if additional elements of the claim add "a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present."

As discussed in the Berkheimer Memo,[10] "an additional element (or combination of elements) is not well-understood, routine, or conventional unless the examiner finds, and expressly supports a rejection in writing with, one or more of the following:" (1) a "statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s)," (2) a "citation to one or more of the court decisions discussed in MPEP § 2106.05(d)(II) as noting the well-understood, routine, conventional nature of the additional element(s)," (3) a "citation to a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s)," or (4) a "statement that the examiner is taking official notice of the well-understood, routine, conventional nature of the additional element(s)."[11]

Applicant respectfully submits that the guidelines laid forth in the Berkheimer Memo are not met, at least in view of the amendments to claim 1. For example, as described below, the techniques recited in the claims are unconventional and non-routine, for at least the reasons that the art of record does not disclose the features recited in the claims, and thus amount to significantly more than an

[8] *See, e.g.*, Specification at par. 0016.

[9] Portions of claim 1 are paraphrased here solely for brevity. This paraphrasing is not intended to alter or limit the scope of claim 1 in any way.

[10] U.S.P.T.O. Memorandum regarding Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*) (April 19, 2018, *hereinafter* "Berkheimer Memo").

[11] Berkheimer Memo at 3-4.

alleged abstract idea. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-4, 6-13, and 15-20 under 35 U.S.C. § 101.

Rejection under 35 U.S.C. § 112(b)

Claims 3, 4, 12, 13, 18, and 19 stand rejected under 35 U.S.C. § 112(b), as allegedly failing to particularly point out and distinctly claim the subject matter. Without acquiescing in this rejection, Applicant submits that claims 3, 4, 12, 13, 18, and 19, as presented herein, address the concerns expressed in the Office Action. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 3, 4, 12, 13, 18, and 19 under 35 U.S.C. § 112(b).

Rejection under 35 U.S.C. § 103 based on Egenthal and Barsness

Claims 1, 2, 6-11, 15-17, and 20 stand rejected under 35 U.S.C. § 103 as allegedly unpatentable over Egenthal and Barsness. Applicant respectfully traverses this rejection, as Egenthal and Barsness do not disclose or suggest one or more of the features recited in claims 1, 2, 6-11, 15-17, and 20.

For instance, without acquiescing in the rejection of independent claim 1, as previously presented, Applicant respectfully submits that Egenthal and Barsness do not disclose *identify[ing], based on the natural language processing, that the message includes an ambiguous phrase; output[ting], to the UE, an indication of the identified ambiguous phrase; receiv[ing], from the UE and based on the indication of the identified ambiguous phrase, a first alternate phrase; identify[ing], based on the first alternate phrase and further based on the score for the message, a second alternate phrase;* and *modifying the message by replacing, in the message and prior to the message being forwarded to the recipient UE, the identified ambiguous phrase with the identified second alternate phrase*, as recited in amended claim 1.

For example, Barsness mentions "ambiguous statements or word choice" at par. 0037, and "replacing the unclear wording with more specific wording" at par. 0039. However, Barsness does not disclose the particular features recited in the proposed amendment to claim 1, including the identification of an ambiguous phrase in a message, receiving a first alternate phrase based on the ambiguous phrase, and further identifying a second alternate phrase based on the received first alternate phrase.[12] The example of Fig. 4 of Applicant's Drawings highlights an example scenario in which the proposed features of claim 1, provided above, may be implemented.

[12] Portions of claim 1 are paraphrased here solely for brevity. This paraphrasing is not intended to alter or limit the scope of claim 1 in any way.

For at least the foregoing reasons, claim 1 is patentable over Egenthal and Barsness, whether taken alone or in combination. Claims 2 and 6-9 depend from claim 1 and are, therefore, patentable over Egenthal and Barsness for at least the reasons given above with respect to claim 1. Independent claims 10 and 16 recite features similar to features discussed above with respect to claim 1. Therefore, claims 10 and 16 are patentable over Egenthal and Barsness for at least reasons similar to those provided above for claim 1. Claims 11 and 15 depend from claim 10, and claims 17 and 20 depend from claim 16. Therefore, claims 11, 15, 17, and 20 are patentable over Egenthal and Barsness for at least the reasons provided above with respect to claims 10 and 16, respectively.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 2, 6-11, 15-17, and 20 under 35 U.S.C. § 103 based on Egenthal and Barsness.

Rejection under 35 U.S.C. § 103 based on Egenthal, Barsness, and Barve

Claims 3, 4, 12, 13, 18, and 19 stand rejected under 35 U.S.C. § 103 as allegedly unpatentable over Egenthal, Barsness, and Barve. Applicant traverses the rejection.

Claims 3 and 4 depend from claim 1, claims 12 and 13 depend from claim 10, and claims 18 and 19 depend from claim 16. Without acquiescing in the rejection of claims 3, 4, 12, 13, 18, and 19, Applicant submits that the disclosure of Barve does not remedy the deficiencies in the disclosures of Egenthal and Barsness set forth above with respect to claims 1, 10, and 16. For example, Barve does not disclose one or more of the features discussed above with respect to claims 1, 10, and 16. Therefore, claims 3, 4, 12, 13, 18, and 19 are patentable over Egenthal, Barsness, and Barve, whether taken alone or in combination, for at least the reasons set forth above with respect to claims 1, 10, and 16, respectively. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 3, 4, 12, 13, 18, and 19 under 35 U.S.C. § 103 based on Egenthal, Barsness, and Barve.

Rejection under 35 U.S.C. § 103 based on Egenthal, Barsness, and Aili

Applicant respectfully submits that the rejection of claim 5 is moot at least in view of the cancellation of claim 5.

New claims

New claim 21 depends from claim 16, and claim 22 depends from claim 1. Therefore, these new claims are patentable over the art of record for at least the reasons provided above with respect to claims 16 and 1, respectively.

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections and the timely allowance of this application. In the event that the application is not believed to be in condition for allowance, the Examiner is invited to contact Applicant's representative at the number shown below to expedite prosecution of this application.

As Applicant's remarks with respect to the rejections are sufficient to overcome these rejections, Applicant's silence as to assertions in the Office Action or certain requirements that may be applicable to such assertions (*e.g.*, whether a reference constitutes prior art, reasons to modify a reference and/or to combine references, assertions as to dependent claims, assertions regarding Official Notice, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future. Furthermore, any assertion, in this communication, by Applicant that certain claims are similar is not intended as an assertion that such claims are identical in scope. Additionally, without acquiescing in the rejection of any canceled claims, Applicant submits that such rejections are moot at least by virtue of the cancellation of such claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-5928, and please credit any excess fees to such deposit account.

Respectfully submitted,

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AMENDMENTS TO THE CLAIMS

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

Listing of Claims:

1. (Currently amended) A device, comprising:

a non-transitory computer-readable medium storing a set of processor-executable instructions; and

one or more processors configured to execute the set of processor-executable instructions, wherein executing the set of processor-executable instructions causes the one or more processors to:

receive a message input at a user equipment ("UE"), the message being associated with a recipient UE;

utilize natural language processing to determine an intent of the message;

generate a score for the message based on the intent of the message;

determine that the score exceeds one or more threshold scores, out of a plurality of threshold scores;

identify, based on the natural language processing, that the message includes an ambiguous phrase;

output, to the UE, an indication of the identified ambiguous phrase;

receive, from the UE and based on the indication of the identified ambiguous phrase, a first alternate phrase;

identify, based on the first alternate phrase and further based on the score for the message, a second alternate phrase;

select a remedial measure, out of a plurality of candidate remedial measures, to perform on the message based on the determined threshold scores exceeded by the generated score of the message and further based on the identification of the ambiguous phrase; and

perform the selected remedial measure on the message, wherein performing the selected remedial measure includes:

modifying the message by replacing, in the message and prior to the message being forwarded to the recipient UE, the identified ambiguous phrase with the identified second alternate phrase; and

outputting the modified message to the recipient UE.

2. (Currently amended) The device of claim 1, wherein generating the score for ~~executing~~ the ~~processor-executable instructions further causes the one or more processors to~~ message further includes:

~~score the message by~~ comparing segments of phrases and/or words in the message, as input at the UE, to a data repository containing phrases and/or words.

3. (Currently amended) The device of claim 1, wherein executing the processor-executable instructions further causes the one or more processors to:

~~receive mediation parameter information;~~

~~receive mediation participant data; and~~

determine a ~~mediation~~ temperature level based on ~~by analyzing at least one of: the received mediation participant data; or the received mediation parameter data~~ an association between the UE and the recipient UE.

4. (Currently amended) The device of claim 3, wherein executing the processor-executable instructions further causes the one or more processors to:

determine the one or more threshold scores based on ~~plurality of message score thresholds by analyzing at least one of: the received mediation parameter data; the received mediation participant data; or~~ the determined ~~mediation~~ temperature level.

5. (Canceled herein)

6. (Original) The device of claim 1, wherein executing the processor-executable instructions further causes the one or more processors to:

associate the each of the determined plurality of message score thresholds with the each of the plurality of candidate remedial measures.

7. (Currently amended) The device of claim 1, wherein outputting the ~~UE is a first UE, wherein executing the processor-executable instructions further causes the one or more processors to: send,~~ modified message includes outputting the modified message via a network~~, the message~~ to ~~a second~~ the recipient UE ~~after performing the selected remedial measure~~.

8. (Original) The device of claim 1, wherein the selected remedial measure is a first remedial measure, wherein executing the processor-executable instructions further causes the one or more processors to:

after performing the first remedial measure,

generate a new score for the message based on the intent of the message;

determine that the new score exceeds one or more threshold scores, out of a plurality of threshold scores;

select a second remedial measure, out of a plurality of candidate remedial measures, to perform on the message based on which threshold scores are exceeded by the generated new score of the message; and

perform the selected second remedial measure on the message.

9. (Currently amended) The device of claim 1, wherein executing the processor-executable instructions further causes the one or more processors to:

identify information regarding a plurality of phrases or words in the received message input at the UE, the information including, for a particular phrase or word, of the plurality of phrases or words, at least one of:

an intent of a particular phrase or word,

a score for the phrase and/or word, or

alternative phrases or words for the particular phrase or word,~~; and~~

wherein generating ~~compare~~ the score includes generating the score based on the information regarding the plurality of phrases or words ~~with~~ in the received message.

10. (Currently amended) A non-transitory computer-readable medium, storing a set of processor-executable instructions, which, when executed by one or more processors, cause the one or more processors to:

receive a message input at a user equipment ("UE"), the message being associated with a recipient UE;

utilize natural language processing to determine an intent of the message;

generate a score for the message based on the intent of the message;

determine that the score exceeds one or more threshold scores, out of a plurality of threshold scores;

identify, based on the natural language processing, that the message includes an ambiguous phrase;

output, to the UE, an indication of the identified ambiguous phrase;

receive, from the UE and based on the indication of the identified ambiguous phrase, a first alternate phrase;

identify, based on the first alternate phrase and further based on the score for the message, a second alternate phrase;

select a remedial measure, out of a plurality of candidate remedial measures, to perform on the message based on the determined threshold scores exceeded by the generated score of the message and further based on the identification of the ambiguous phrase; and

perform the selected remedial measure on the message, wherein performing the selected remedial measure includes:

modifying the message by replacing, in the message and prior to the message being forwarded to the recipient UE, the identified ambiguous phrase with the identified second alternate phrase; and

outputting the modified message to the recipient UE.

11. (Currently amended) The non-transitory computer-readable medium of claim 10, wherein ~~execution of~~ generating the score for ~~processor-executable instructions further causes~~ the ~~one or more processors to~~ message further includes:

~~score the message by~~ comparing segments of phrases and/or words in the message, as input at the UE, to a data repository containing phrases and/or words.

12. (Currently amended) The non-transitory computer-readable medium of claim 10, wherein execution of the processor-executable instructions further causes the one or more processors to:

~~receive mediation parameter information;~~

~~receive mediation participant data; and~~

determine a ~~mediation~~ temperature level based on ~~by analyzing at least one of: the received mediation participant data; or the received mediation parameter data~~ an association between the UE and the recipient UE.

13. (Currently amended) The non-transitory computer-readable medium of claim 12, wherein execution of the processor-executable instructions further causes the one or more processors to:

determine the one or more threshold scores based on ~~plurality of message score thresholds by analyzing at least one of: the received mediation parameter data; the received mediation participant data; or~~ the determined ~~mediation~~ temperature level.

14. (Canceled herein)

15. (Original) The non-transitory computer-readable medium of claim 10, wherein execution of the processor-executable instructions further causes the one or more processors to:

after performing the first remedial measure,

generate a new score for the message based on the intent of the message;

determine that the new score exceeds one or more threshold scores, out of a plurality of threshold scores;

select a second remedial measure, out of a plurality of candidate remedial measures, to perform on the message based on which threshold scores are exceeded by the generated score of the message; and

perform the selected second remedial measure on the message.

16. (Currently amended) A method, comprising:

receiving a message input at a user equipment ("UE"), the message being associated with a recipient UE;

utilizing natural language processing to determine an intent of the message;

generating a score for the message based on the intent of the message;

determining that the score exceeds one or more threshold scores, out of a plurality of threshold scores;

identifying, based on the natural language processing, that the message includes an ambiguous phrase;

outputting, to the UE, an indication of the identified ambiguous phrase;

receiving, from the UE and based on the indication of the identified ambiguous phrase, a first alternate phrase;

identifying, based on the first alternate phrase and further based on the score for the message, a second alternate phrase;

selecting a remedial measure, out of a plurality of candidate remedial measures, to perform on the message based on the determined threshold scores exceeded by the generated score of the message and further based on the identification of the ambiguous phrase; and

performing the selected remedial measure on the message, wherein performing the selected remedial measure includes:

modifying the message by replacing, in the message and prior to the message being forwarded to the recipient UE, the identified ambiguous phrase with the identified second alternate phrase; and

outputting the modified message to the recipient UE.

17. (Currently amended) The method of claim 16, wherein generating the score for the message further ~~comprising~~ comprises:

~~scoring the message by~~ comparing segments of phrases and/or words in the message, as input at the UE, to a data repository containing phrases and/or words.

18. (Currently amended) The method of claim 16, further comprising:

~~receiving mediation parameter information;~~

~~receiving mediation participant data; and~~

determining a ~~mediation~~ temperature level based on ~~by analyzing at least one of: the received mediation participant data; or the received mediation parameter data~~ an association between the UE and the recipient UE.

19. (Currently amended) The method of claim 18, further comprising:

determining the one or more threshold scores based on ~~plurality of message score thresholds by analyzing at least one of: the received mediation parameter data; the received mediation participant data; or~~ the determined ~~mediation~~ temperature level.

20. (Currently amended) The method of claim ~~15~~ 16, further comprising:

identifying information regarding a plurality of phrases or words in the receive message input at the UE, the information including, for a particular phrase or word, of the plurality of phrases or words, at least one of:

an intent of a particular phrase or word,

a score for the phrase and/or word, or

alternative phrases or words for the particular phrase or word,~~; and~~

wherein generating ~~comparing~~ the score includes generating the score based on the information regarding the plurality of phrases or words ~~with~~ in the received message.

21. (New) The method of claim 16, wherein the message is a first message, wherein performing the selected remedial measure further includes:

presenting, in a same user interface at the UE via which the message was input, a prompt requesting indicating the modified message;

receiving, via the same user interface at the UE, a second message in response to the prompt,

wherein outputting the modified message is performed based on receiving the second message, wherein the second message is not sent to the recipient UE.

22. (New) The device of claim 1, wherein the message is a first message, wherein performing the selected remedial measure further includes:

presenting, in a same user interface at the UE via which the message was input, a prompt requesting indicating the modified message;

receiving, via the same user interface at the UE, a second message in response to the prompt,

wherein outputting the modified message is performed based on receiving the second message, wherein the second message is not sent to the recipient UE.