



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/986,521	01/07/2011	Paul Eastlund	GOOGLE 3.0-223	6560
78792	7590	02/20/2015	EXAMINER	
GOOGLE Lerner, David, Littenberg, Krumholz & Mentlik, LLP 600 South Avenue West Westfield, NJ 07090			SANTOS-DIAZ, MARIA C	
			ART UNIT	PAPER NUMBER
			3689	
			NOTIFICATION DATE	DELIVERY MODE
			02/20/2015	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):

eOfficeAction@ldlkm.com

Office Action Summary	Application No. 12/986,521	Applicant(s) EASTLUND, PAUL	
	Examiner MARIA C. SANTOS	Art Unit 3689	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 04/22/2014.
 - A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- 4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) Claim(s) 1-20 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 _____ 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: _____

Reopening Prosecution

In view of the appeal brief filed on 04/22/2014, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount of previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

**/JANICE MOONEYHAM/
Supervisory Patent Examiner, Art Unit 3689**

DETAILED ACTION

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

Claim Rejections - 35 USC § 112 first paragraph

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

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), first paragraph:
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 11 are rejected under 35 U.S.C 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time that the application was filed, had possession of the claimed invention.
4. Regarding Claims 1 and 11, as indicated above, the written description fails to sufficiently disclose the corresponding acts for the claimed functions. The specification includes a lot of result-oriented language similar to that of the claims, without describing the corresponding steps required to perform the claimed functions. For example, in

Art Unit: 3689

paragraph [0047], Applicant states, “the processor 204 initially estimates a probability that a business listing, denoted as variable i , is incorrect, denoted as variable fi .”

Paragraph [0048] Applicant states that “the processor 204 may estimate fi by dividing the number of views of the business listing with the number of times users have selected (e.g., “clicked”) the business listing.” It is not understood how the accuracy of the data can be estimated by dividing the number of views of listings by the number of clicks each receives. Paragraph [0050] “assume that the moderation priority server has estimated that a business listing has a 50% chance of having a severity-10 problem...”

What is the basis for this estimate, how is it determined? [0051], Applicant states “The processor 204 may then assign a penalty to publishing the business listing with one or more errors.” The variable $peni$ denotes this penalty. “The variable $beni$ may be based on the potential number of impressions of the business listing.” The specification does not disclose specifically what actions are performed by the invention to determine the potential number of impressions and there is no calculation indicated in the specification used to determine the value of $beni$. Regarding equation $peni = sevi * impi$, since no steps for calculating these variables have been disclosed in the specification the equation is undefined. With regard to the formulas [0052] $beni * (1-fi)$ and $(peni * fi)$ being determinations of the publishing value and suppressing value, respectively, of a business listing, since no clear basis for determining $beni$ or fi or $peni$ has been elucidated in the specification the formulas which combine undefined variables are also undefined. The claims define the invention in functional language specifying a desired result, while the specification does not sufficiently identify how the invention achieves

Art Unit: 3689

the claimed function. The specification must disclose the algorithm (e.g., the necessary steps and/or flowcharts) required to perform the claimed function in sufficient detail such that one of ordinary skill can reasonably conclude that the inventor invented the claimed subject matter. As such, Applicant has not met the requirement of 112, first paragraph. Claims 2- 20 and 12-18 are also rejected as they depend on Claims 1 and 11.

In summary, it is uncertain as to whether applicant has possession of the claimed invention since the written description has failed to properly define the publishing value and the suppressing value. Although the specification has provided numerous equations and definitions, the Examiner asserts that there is insufficient disclosure as to how the variables that make up the equations are attained. As discussed above:

the variable f_i is unclear since the equation that defines it does not coincide with what f_i is supposed to disclose (f_i is directed towards probability of inaccuracy while the equation is directed towards determining how often a listing is accessed in regards to how often it has been listed);

determining the number of impressions is unclear since the specification discloses that the impression is directed towards the expected or potential number of impressions and the specification fails to disclose what the source data is supposed to be. That is to say, how has the apparatus been programmed to make a guess at the expected number of impressions (which the Examiner assumes is equivalent to views/access) when the apparatus does not know the base or source data so that the apparatus can extrapolate an expected number of impressions. The same rationale applies to the method. This is critical since ben_i and pen_i rely on the number of

Art Unit: 3689

expected impressions, which further correspond to the publishing value and suppressing value, respectively.

the variable that denotes sev_i is also unclear since it is not certain how the degree of severity is determined. What are the metrics, parameters, data, or etc. that would allow a user or apparatus to determine the degree of severity so that pen_i can be determined, which is the equation that determines the suppressing value.

In conclusion, it is difficult to determine whether the publishing value and the suppressing value are truly two different values or whether they are simply two sides to the same coin. As evidenced by the equations disclosed in paragraph 52, the equations seem to be the inverse of one another, save for the fact that they are being multiplied by a weighted factor, i.e. ben_i and pen_i (which, as discussed above, the Examiner is uncertain as to how these values are being attained). As best understood, it appears that the weighted factors are simply being provided in order to determine the percentage of expected listings that will be accurate or inaccurate, respectively. However, as discussed above, it is difficult to determine this since it is unclear as to what f_i is supposed to disclose.

Further regarding these limitations Applicant's specification does not provide an explanation or an example of how an optimal prioritization of business listings for moderation is performed. The Applicant has failed in provide a guidance and a description of what a moderation encompasses and further the scope of the term. The limitations are so broad in scope that can encompass every single way of determining

Art Unit: 3689

that a business listing has accurate or inaccurate information since the variables disclosed in the specification cannot be determined.

As the courts have made clear, the first paragraph 35 U.S.C §112 contains a written description requirement that is separate and distinctive from the enablement requirement. See *Ariad Pharmaceuticals, Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1340 (Fed. Cir. 2010).

As the Federal Circuit has stated in *Ariad*:

a generic claim may define the boundaries of a vast genus of chemical compounds, and yet the question may still remain whether the specification, including original claim language, demonstrates that the applicant has invented the species sufficient to support a claim to a genus. The problem is especially acute with genus claims that use functional language to define the boundaries of a claimed genus. In such a case, the functional claim may simply claim a desired result, and may do so without describing species that achieve that result. But **the specification must demonstrate that the applicant has made a generic invention that achieves the claimed result and do so by showing that the applicant has invented species sufficient to support a claim to the functionally-defined genus.**

Ariad, 598 F.3d at 1349 (emphasis added). While *Ariad* relates to chemical compounds, the legal principles are the same. Since Applicant has failed in providing throughout the specification examples as to how the invention is accomplishing the results, Applicant has failed to provide a disclosure and therefore possession of any species of the genus of what is being claim.

Claim Rejections - 35 USC § 112 second paragraph

5. 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:

Art Unit: 3689

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.

6. Claims 1, 3-5, 8-9, 11, 13-15 and 18-19 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 pre-AIA the applicant regards as the invention. The claims recite the term "moderation"; however this term is unclear in scope, Applicant has failed to provide a definition of the term in the specification. Someone trying to avoid infringement would not understand what the term "moderation" means. The specification has not provided a definition to the term. Further it is unclear what the Applicant intended scope of the term "moderation priority" is. It is unclear what kind of priority is a moderation priority and the difference from a regular priority, it is unclear if the term moderation is just a label or define different priority since the term "moderation" has not being defined or given an example to clarify the scope of the term.

7. Claims 6 and 16 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 pre-AIA the applicant regards as the invention. The claim recites the limitation "determine the publishing value of the selected business listing based on an expected number of impressions for the selected business listing and an estimated probability that the selected business listing is inaccurate." However such limitation is contradictory. Claim 1, from which claim 6 depends, discloses that the publishing value is based on the information of the business listing being accurate. Further nowhere in the specification

Art Unit: 3689

is indicated that the publishing value takes into consideration the information being inaccurate. For examination purposes, the claim will be interpreted as recited in claim 1.

Claim Rejections - 35 USC § 101

8. 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.

Claims 1-20 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter because the claim(s) as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea, specifically the abstract idea of prioritizing business listing that needs to be moderated. After considering all claim elements, it has been determined that the claim(s) at issue are not significantly more than the abstract idea itself or more than mere instructions to apply the abstract idea. The claim requires no more than a general purpose computer to perform generic computer functions that are well-understood in the art of advertisement. While the claim recites hardware and software elements, such as memory and a processor, these limitations are not sufficient to qualify as being “significantly more” than the abstract idea. Specifically, the claims are directed to the abstract idea of advertisement, wherein listings are prioritize based on moderation and the abstract idea of a mathematical formula. Looking at the claimed steps/functions individually with respect to the functions being performed by the claimed computing devices, they are all routine and conventional. The steps of determining a publishing value based on the information of a listing being accurate and determining a

Art Unit: 3689

suppressing value based on the information of a listing being inaccurate are reciting steps of a mathematical operation which all processors/computers are capable of doing to generate an end result and which is considered to be an abstract idea. The steps of assigning a moderation priority to the business listing based on the suppressing value or the publishing value are also steps of analysis being done to data to display an end result which is the moderation priority value. These acts are all steps that can be performed by any off the shelf generic computing device and do not require any special hardware. The additional element(s) or combination of elements in the claim(s) other than the abstract idea per se amount(s) to no more than a generic computing system in the form of a processor and a network. As stated above, the claimed steps/functions are reciting functions that all computers provide, and which are routine and conventional in the computing arts. Viewed as a whole, these additional claim element(s) do not provide meaningful limitation(s) to transform the abstract idea into a patent eligible application of the abstract idea such that the claim(s) amounts to significantly more than the abstract idea itself. The claim recitations to steps of the method being performed by a processor amounts to more or less reciting that the method is to be applied by a generic computer/processor and a generic processor, nothing more. This does nothing more than instruct a practitioner to implement the abstract idea on a generic computer and is not sufficient to transform the abstract idea into a patent eligible invention. The claims do not result in any improvement to the functioning of the processor or a computer itself, and do not effect an improvement in another technology or technical field. Therefore, the claim(s) are rejected under 35 U.S.C. 101 as being directed to non-

Art Unit: 3689

statutory subject matter. The dependent claims do not recite anything that is found to render the abstract idea as being transformed into a patent eligible invention. Further, claims to a system are held ineligible for the same reason, e.g., the generically-recited computers add nothing of substance to the underlying abstract idea. Therefore, since there are no limitations in the claim that transform the exception into a patent eligible application such that the claim amounts to significantly more than the exception itself, the claims are rejected under 35 USC 101 as being directed to non-statutory subject matter. See *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*

Claim Rejections - 35 USC § 103

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

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

7. **Claims 1, 3-5 10-11, 13-15, 20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Wotton (US Patent Publication 2006/0173924) further in view of Li (US Patent Publication 2011/0196733).**

Regarding Claims 1, 11, Wotton discloses an apparatus and method for an optimal prioritization of business listings for moderation, the apparatus comprising:

a memory operative to store a business listing database comprising a plurality of business listings (see at least ¶ [0094] disclosing the memory and data record store

Art Unit: 3689

which stores the data records. See also ¶0031 disclosing that a data record is any set or array of data; therefore a business listing is included in a data record.); and

a processor in communication with the memory (see at least ¶ [0094] disclosing processor receiving data from the data record store.), the processor being operative to:

determine a publishing value for a selected business listing of the plurality of business listings based on a probability that business information for the selected business listing is accurate, wherein the publishing value indicates a value of publishing the selected business listing (see at least Figs 1, 9, and ¶ 47, 49-51 disclosing the process of calculating a score value for the data record fields based on a plurality of rules, including a rule that the information in the data record field is correct. As it is disclosed a determination is made as to whether the rule succeeded or passed (i.e. the data field is correct.) It is clear that an independent score is being calculated for each of the data fields within the data record wherein an independent score of 1 will be assign based on the rule that the data in the record is accurate. See ¶37-54 for the complete process.);

determine a suppressing value for the selected business listing based on the probability that the business information is not accurate, wherein the suppressing value indicates a value of suppressing the business listing (see at least Figs 1, 9, and ¶ 0003, 0006, 0033-0036 and 46 disclosing the process of calculating a score value for the data record fields based on a rule that the information in the data record field is incorrect.

¶44 clearly discloses the data field being assigned a score of 0, when it is determined that the data record has failed a rule. See further ¶6, 11-14 disclosing a determination

Art Unit: 3689

being made that the data field is inaccurate. It is clear that an independent score is being calculated for each of the data fields within the data record wherein an independent score of 0 will be assigned based on the rule that the data in the record is inaccurate.);

the publishing value exceeding the suppressing value (see at least ¶ 0056 disclosing the score of the data record being calculated based on the score of each field in the data record wherein each independent indicating the quality of the data record. Further see ¶ [0085-0092] disclosing the calculation of the score taking into consideration the value when the record failed the rule and the value when the record succeeded the rule.); and

the suppressing value exceeding the publishing value (see at least ¶ 0056 disclosing the score of the data record being calculated based on the score of each field in the data record wherein each independent indicating the quality of the data record. Further see ¶ [0085-0092] disclosing the calculation of the score taking into consideration the value when the record failed the rule and the value when the record succeeded the rule.).

Wotton does not explicitly disclose:

assigning a first moderation priority to the selected business listing that indicates a priority of the selected business listing for moderation.

assign a second moderation priority different than the first moderation priority that indicates the priority of the selected business listing for moderation.

Art Unit: 3689

Wotton identifies that the data is correct or erroneous but fails to disclose that such data is updated.

Li is introduced to teach a ranking of advertisement based on a performance score.

Li teaches:

ranking of advertisement based on a performance score (see at least ¶¶0007, 0033, 0058 among others disclosing a ranking order of the advertisements from a higher performance score to a lower performance score.)

Li teaches a contextual advertising system that optimizes a computer selection of low performance ranked messages and high performance ranked messages for display on a network location. Further Li teaches a ranking of performance scores for advertisements from high performance to low performance, wherein the performance is based on the click through rate of the advertisement on the web. From this, it would it would have been obvious to one having ordinary skill in the art at the time the invention was made to, once the determination is being made regarding the quality of the business listing by determining that the information is correct or incorrect, create or generate an order to sort the business listing from high quality value to low quality value and vice versa in order to further display the business listing in order of quality or correctness.

Regarding Claim 3, 13, Wotton discloses

determine the publishing value for the selected business listing based on a probability that the business information is accurate (see at least ¶ [0033] disclosing the

Art Unit: 3689

generation of rules wherein failure of a rule indicate an error in the data field, further if the data is correct the data record is assigned a succeed value of 1. Further see ¶ [0034, 0044, 0046-0047, 0049, 0050-0053, 0071-0084]);

determine the suppressing value for the selected business listing based on the probability that the business information is not accurate (see at least ¶ [0033] disclosing the generation of rules wherein failure of a rule indicate an error in the data field giving the record a value of 0. Further see ¶ [0034, 0044, 0046-0047, 0049, 0050-0053, 0071-0084]);

the determined publishing value exceeds the determined suppressing value (see at least ¶ 0030 disclosing the calculated score indicating the quality of the data record. Further see ¶ [0085-0092] disclosing the calculation of the score taking into consideration the value when the record failed the rule and the value when the record succeeded the rule.); and

assign a fourth moderation priority different than the third moderation priority, wherein the fourth moderation priority indicates that the priority of the selected business listing for moderation when the determined suppressing value exceeds the determined publishing value (see at least ¶ 0030 disclosing the calculated score indicating the quality of the data record. Further see ¶ [0085-0092] disclosing the calculation of the score taking into consideration the value when the record failed the rule and the value when the record succeeded the rule.).

Wotton does not explicitly disclose:

Art Unit: 3689

updating the business information of the selected business listing with a received update of business information from a business information source and re-determine the publishing value and the suppressing value.

However Li teaches:

Updating the data from a data source (see at least ¶0055 disclosing the content being updated.)

From this teaching it would have been obvious to one having ordinary skill in the art of maintaining data records to update such records since combination of known methods yield to the predictable result of maintaining the information such that is has relevance to the user.

Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to re-determine the publishing and the suppressing values once the data records are updated since such re-determination would provide a verification as to if the updated information is accurate or inaccurate having the benefit of a reliable updated values of the data fields based on the new information.

Regarding Claim 4, 14,

Wotton does not explicitly disclose:

a moderation priority queue, wherein the processor is further operative to assign one of the first moderation priority or the second moderation priority when the moderation priority queue is populated with the selected business listing.

However Li teaches:

Art Unit: 3689

a moderation priority queue, wherein the processor is further operative to assign one of the first moderation priority or the second moderation priority when the moderation priority queue is populated with the selected business listing (Li/ see at least ¶0057 and 0061 disclosing a top advertisement queue maintained based on the score of the advertisement.).

Therefore, it would be obvious to one of ordinary skill in the art to maintain a queue for the records that are erroneous prior to other records since such would allow the system to have reliable and correct data sooner than if no priority is applied to the records applied.

Regarding Claim 5, 15,

Wotton does not explicitly disclose:

the moderation priority queue comprises a plurality of business listings to be moderated and the business listings to be moderated are sorted according to an amount of moderation time required to moderate each of the business listings to be moderated.

However Li teaches:

the moderation priority queue comprises a plurality of business listings to be moderated (Li/ see at least ¶0057 and 0061 disclosing a top advertisement queue maintained based on the score of the advertisement.); and the business listings to be moderated are sorted according to an amount of moderation time required to moderate each of the business listings to be moderated (see at least ¶0071 disclosing a hierarchy of the advertisements based in time. See also ¶0079).

From this teaching it would have been obvious to one having ordinary skill in the art of queue management to determine the time it takes to upgrade a record to further generate a sorting based on such time as disclosed in Li since such combination of prior art elements yield to predictable results such as servicing the tickets or records that has a shorter amount of time prior to the tickets or records that has a greater amount of time, by doing this the system would have shorter queues and would be able to service more records or tickets in a shorter amount of time.

Regarding Claim 6, 16, Wotton discloses determine the publishing value of the selected business listing is based on an estimated probability that the selected business listing is inaccurate (see at least Fig 1 and 9, and ¶ 0003, 0006, 0033-0036 and 0037-0053 disclosing the process of calculating a score value for the data record fields based on a plurality of rules, including a rule that the information in the data record field is correct. It is clear that an independent score is being calculated for each of the data fields within the data record wherein an independent score of 1 will be assign based on the rule that the data in the record is accurate.).

Wotton does not explicitly disclose:

taking into consideration an expected number of impressions for the selected business listing.

However Li teaches:

taking into consideration an expected number of impressions for the selected business listing (See at least ¶ 0097-0098, 0105-0106 disclosing determining the

Art Unit: 3689

number of impressions of the advertisement which is further used to calculate the nCTR score.)

From this teaching it would have been obvious to one having ordinary skill in the art at the time the invention was made to take into consideration the expected number of impressions of a data record or an ad as disclosed on Li, when determining a publishing value since it is well known in the art of advertisement that the value of an impression is based on the quantity of impressions and the quality of the advertisement as disclosed in ¶ 0106.

Regarding Claim 7, 17, Wotton discloses determine the suppressing value of the selected business listing based on an estimated severity of a problem with the selected business listing (see at least ¶¶0009, 0038 disclosing the weight assigned to the data field, see also ¶¶0040-0041 disclosing the critical rules.).

Wotton does not explicitly disclose:

taking into consideration an expected number of impressions for the selected business listing.

However Li teaches:

taking into consideration an expected number of impressions for the selected business listing (See at least ¶¶ 0097-0098, 0105-0106 disclosing determining the number of impressions of the advertisement which is further used to calculate the nCTR score.)

From this teaching it would have been obvious to one having ordinary skill in the art at the time the invention was made to take into consideration the expected number

Art Unit: 3689

of impressions of a data record or an ad as disclosed on Li, when determining a publishing value since it is well known in the art of advertisement that the value of an impression is based on the quantity of impressions and the quality of the advertisement as disclosed in ¶ 0106.

Regarding Claim 8, 18, Wotton discloses the first moderation priority is based on an estimated probability that the selected business listing is inaccurate, and an estimated severity of a problem with the selected business listing (see at least ¶ 0030 disclosing the calculated score indicating the quality of the data record. See also ¶ [0085-0092] disclosing the calculation of the score taking into consideration the value when the record failed the rule and the value when the record succeeded the rule. Further see ¶0009, 0038 disclosing the weight assigned to the data field, see also ¶0040-0041 disclosing the critical rules.).

Wotton does not explicitly disclose:

taking into consideration an expected number of impressions for the selected business listing.

However Li teaches:

taking into consideration an expected number of impressions for the selected business listing (See at least ¶ 0097-0098, 0105-0106 disclosing determining the number of impressions of the advertisement which is further used to calculate the nCTR score.)

From this teaching it would have been obvious to one having ordinary skill in the art at the time the invention was made to take into consideration the expected number

Art Unit: 3689

of impressions of a data record or an ad as disclosed on Li, when determining a publishing value since it is well known in the art of advertisement that the value of an impression is based on the quantity of impressions and the quality of the advertisement as disclosed in ¶ 0106.

Regarding Claim 9 and 19, Wotton in view of Li discloses the second moderation priority as disclosed in claim 1.

Wotton does not explicitly disclose:

taking into consideration an expected number of impressions for the selected business listing.

However Li teaches:

taking into consideration an expected number of impressions for the selected business listing (See at least ¶ 0097-0098, 0105-0106 disclosing determining the number of impressions of the advertisement which is further used to calculate the nCTR score.)

From this teaching it would have been obvious to one having ordinary skill in the art at the time the invention was made to take into consideration the expected number of impressions of a data record or an ad as disclosed on Li, when determining a publishing value since it is well known in the art of advertisement that the value of an impression is based on the quantity of impressions and the quality of the advertisement as disclosed in ¶ 0106.

Regarding Claim 10 and 20,

Wotton does not explicitly disclose:

Art Unit: 3689

prioritize the business listing based on a probability that the selected business listing has a fatal severity when the selected business listing has a problem and the selected business listing is to be suppressed.

However Li teaches:

prioritize the business listing based on a probability that the selected business listing has a fatal severity when the selected business listing has a problem and the selected business listing is to be suppressed (see at least ¶0057 and 0061 disclosing a top advertisement queue maintained based on the score of the advertisement.).

From this teaching it would be obvious to one of ordinary skill in the art to maintain a queue for the records that are erroneous prior to other records since such would allow the system to have reliable and correct data sooner than if no priority is applied to the records applied.

Claim Rejections - 35 USC § 103

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

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

9. **Claims 2 and 12 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Wotton (US Patent Publication 2006/0173924) further in view of Li (US Patent Publication 2011/0196733) and Crasmaru (US Patent Publication 2013/0138487).**

Art Unit: 3689

Regarding Claim 2, 12, Wotton discloses:

the publishing value exceeding the suppressing value (see at least ¶ 0030 disclosing the calculated score indicating the quality of the data record. Further see ¶ [0085-0092] disclosing the calculation of the score taking into consideration the value when the record failed the rule and the value when the record succeeded the rule.); and

the suppressing value exceeding the publishing value (see at least ¶ 0030 disclosing the calculated score indicating the quality of the data record. Further see ¶ [0085-0092] disclosing the calculation of the score taking into consideration the value when the record failed the rule and the value when the record succeeded the rule.).

Wotton does not explicitly disclose:

update the business listing database to indicate that the selected business listing is to be published when the publishing value exceeds the suppressing value; and

update the business listing database that the selected business listing is to be suppressed when the suppressing value exceeds the publishing value.

However Crasmaru teaches:

update a database to indicate that a record has being approved to be published; and updating a database to indicate that a record has being disapproved to be published (see at least ¶ [0023, 0029, 0052] disclosing updating the status of a record to indicate if the record is approved and ready to be published or that the record is disapproved.).

Crasmaru teaches a system for content distribution where publishers needs to approve the content prior to publishing. Crasmaru discloses reviewing content items

Art Unit: 3689

before publishing to determine if the content is acceptable or if the content is not acceptable to be published as disclosed in ¶ [0020]. From this teaching it would have been obvious to one having ordinary skill in the art at the time the invention was made to update the record to indicate if a record is ready to published or not once a determination has been made regarding the quality of the record that further indicates that a record contains more accurate information than erroneous information since such modification of the system to indicate that a record is ready or not to be published is a combination of prior art elements according to known methods to yield to the predictable result of a determine whether the content is acceptable to be published in order to avoid a record with erroneous information to be published as disclosed in Crasmaru.

Response to Arguments

14. Applicant's arguments filed 04/22/2014 have been fully considered but they are not persuasive.

15. Regarding to the 112 1st paragraph written description rejection to claims 1-20 Applicant argues:

a. At pages 6-7...“Examples for determining a **suppressing value** ...are described in detail at paragraphs [0047]-[0052]...of the Specification...Appellant respectfully submits that the Specification provides sufficient explanation of such features and that the Examiner's rejections of claims 1 and 11 under 35 U.S.C. § 112, first paragraph, are improper.” Examiner respectfully disagrees. While paragraphs [0047-0052] disclose the variables used to calculate the suppressing, the specification fails to disclose how the variables are being used to calculate

Art Unit: 3689

the suppressing value. It is disclosed in the specification that the suppressing value is obtained by the equation $(pen_i * fi)$, however such variables have not been adequately described in the specification. The specification on paragraph [0051] discloses " $pen_i = sev_i * imp_i$ ", however the specification fails to disclose how the variable sev_i is determined. Paragraph [0049] discloses that sev_i denotes the severity in the problem of the business listing but fails to disclose how the determination of such severity is being determined, further it is disclosed that the processor may also estimate a severity in a problem with a business listing but once again fails to disclose how this determination is being made. Therefore it is clear that the determination of the suppressing value is unclear since the specification does not provide guidance on how the variables of the equation to determine the suppressing value are determined. Based on this, it is determined that the specification does not comply with the written description requirement.

b. At pages 6-7... "Examples for determining ... **a publishing value** are described in detail at paragraphs [0047]-[0052]...of the specification...Appellant respectfully submits that the Specification provides sufficient explanation of such features and that the Examiner's rejections of claims 1 and 11 under 35 U.S.C. § 112, first paragraph, are improper." Examiner respectfully disagrees. While paragraphs [0047-0052] disclose the variables used to calculate the suppressing and the publishing value, the specification fails to disclose how the variables are being used to calculate the value. It is disclosed in the specification that the

Art Unit: 3689

publishing value is calculated as $ben_i * (1 - fi)$, as it is disclosed in paragraph 0052, however such variables have not been adequately described in the specification. The specification discloses on paragraph 0051 "The variable ben_i may be based on the potential number of impressions of the business listing. For example, the variable ben_i may be defined as a linear function of the expected number of impressions for the business listing. However, the variable ben_i may be determined as any other kind of function of the number of impressions of the business listing." In this portion of the paragraph the Applicant vaguely discloses the ways that ben_i "may be" calculated but fail to clearly disclose how the variable is calculated, further there is no example on how the Applicant contemplated such calculation but a vaguely disclose of how the variable might be calculated, such disclosure does not comply with the written description requirements under 112 1st.

c. At pages 7-10... "The Specification describes sufficient examples for determining a publishing value and determining a suppression value" Although the publishing and suppressing values are defined in the specification as being calculated with the equations $[ben_i * (1 - fi)]$, for the publishing value and $[(pen_i * fi)]$ for the suppressing value, the variables within the equation are not clearly defined and lack written description. As described above in points a and b of the present section, the specification fails to provide written description for the variables used within both of the equations, that is to say even when both equations are defined as to what is taken into consideration for calculating the

Art Unit: 3689

values, the variables used in the equations are unclear as to how they are determined, therefore the complete equation is unclear and lacks written description. For example, Applicant argues (on page 8) "The value $beni$ may be "a benefit to publishing the business listing without errors" that is determined "based on the potential number of impressions of the business listing" represented by i ... One example explains that $beni$ may be "defined as a linear function of the expected number of impressions of the business listing" or "as any other kind of function of the number of impressions of a business listing." (Id. at p.17 1.29 to p.18 1. 2.)" However this sections does not disclose how $beni$ is determined, the specification discloses what the term means, but does not disclose how it is determined, what is the linear function used to determine the benefit of publishing the listing without errors. Clearly this information has not being disclosed in the originally filled specification. Further on page 8 Applicant argues "The Specification also explains that a suppression value may be determined from the equation $(pen_i * fi)$... The variable pen_i denotes a penalty to publishing the business listing represented by i with one or more errors...The Specification notes that the variable pen_i may be determined from the equation $pen_i = se_{vi} * imp_i$..." However there is no disclosure as to how the severity of the problem with the business listing is determined. As another example, the specification provides an example for the calculation on the severity, wherein severity-10 is defined as having wrong business category and severity-20 is defined as having wrong business address. Further the example assumes the

Art Unit: 3689

business listing having severity-10 of a 50% chance and severity-20 having 50% chance. Based on this information alone, the example further discloses that moderation priority server determines that the business listing has a 75% chance of having a severity-20 problem. It is not disclose how the priority server makes such determination and goes from a 50% chance to having a 75% of having severity-20. There is a lack of written description in the specification as to how the variable *sevi* is determined, and therefore there is a lack of written description for the suppressing value.

d. At pages 10-12... "The First and Final Office Actions made no determination of the field of the invention and the level of skill and knowledge in the art. Rather, the Examiner's rejection is based solely on her own opinion without any factual or documentary support." Examiner respectfully disagrees. The MPEP 2163 states "*To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. See, e.g., Moba, B.V. v. Diamond Automation, Inc., 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003); Vas-Cath, Inc. v. Mahurkar, 935 F.2d at 1563, 19 USPQ2d at 1116.*" The Examiner clearly detailed in the 112 1st rejection above why the claims are rejected under 35 USC 112 for not complying with the written description requirement using, as evidence, a plurality of paragraphs within Applicant's originally filled specification. Applicant is claiming a publishing and a suppressing value in independent claim 1;

Art Unit: 3689

however, and as demonstrated, the specification fails to provide a clear description of the variables used in determining the suppressing and the publishing value. Therefore the claims are rejected under 35 USC 112 for not complying with the written description requirement.

e. At pages 12-14... "The Examiner's rejections based on a purported lack of written description of the variable f_i is improper" Examiner respectfully disagrees. Paragraph [0047] discloses "The processor 204 may determine f_i based on one or more factors, such as the business information source (s) that provided the business information for the business listing, the amount of business information present in the business listing, the type of business information in the business listing, or any other factors." However this paragraph fails to clearly disclose how f_i is determined. The Applicant vaguely discloses factors that may be used to determine f_i but fails to specifically disclose how the processor determine this variable further used to calculate the publishing value. From the disclosure of the Applicant, it is not possible to one of ordinary skill in the art to determine a probability that a business listing is incorrect. For example, taking into consideration only the amount of information in a business listing one of ordinary skill would not be able to determine that a business listing has erroneous information. Such type data would be helpful to determine how long is a business listing or how many characters has a business listing but would not be helpful to determine if the data is correct or incorrect, therefore by vaguely disclosing what factors "**may be**" used to determine that a business listing is

Art Unit: 3689

inaccurate, the Applicant is not complying with the requirements under 112 1st written description.

f. At page 15... "The Examiner's rejection based on a purported lack of written description of the variable $sevi$ is improper". Applicant further cites pages 16-17 of Applicant's specification. As explained in point c, Applicant's specification lacks of written support for the variable $sevi$. Pages 16-17 of Applicant's specification provide an example of the calculation for the severity value or $sevi$, wherein severity-10 is defined as having wrong business category and severity-20 is defined as having wrong business address. Further the example assumes the business listing having severity-10 of a 50% chance and severity-20 having 50% chance. Based on this information alone, the example further discloses that moderation priority server determines that the business listing has a 75% chance of having a severity-20 problem. However, it is not disclose how the priority server makes such determination and how the priority server goes from a 50% chance to having a 75% of having severity-20. There is a lack of written description in the specification as to how the variable $sevi$ is determined. Further page 16 discloses paragraph [0049] "The processor 204 may also estimate a severity in a problem with a business listing i , provided that the processor 204 has determined that there is a probability that the business listing has a problem. The variable $sevi$ denotes the severity in the problem with business listing i . As discussed above with reference to the moderation candidates pipeline 208, this value may also be based on the previously

Art Unit: 3689

clustered business information and/or the previously summarized business information." Applicant's cited pages are telling the reader what is being done and the factors used (this value (i.e. the severity) may also be based on the previously clustered business information) to estimate the severity in a problem with a business listing; however is failing to disclose how the determination is being made, how this severity variable is being calculated.

g. At page 16... "The Examiner's rejections based on a purported lack of written description of the variable *beni* and how a number of impressions is determined are improper" Examiner respectfully disagrees. As explained on point c, in which Applicant argues that the variable *beni* is disclosed in the specification, the specification does not provide a clear definition on how the benefit is calculated. The specification does provide what the variable *beni* means; however does not provide a guidance as to how the variable is determined. Further the specification discloses that the variable *may be* "a benefit to publishing the business listing without errors" that is determined "based on the potential number of impressions of the business listing"... but fails to disclose how the potential number of impressions is used and what other variables are comprised in the equation to determine the variable *beni*. One further example explains that *beni may be* "defined as a linear function of the expected number of impressions of the business listing" or "as any other kind of function of the number of impressions of a business listing.") However these sections do not disclose how the variable *beni* is determined. Throughout the

Art Unit: 3689

specification there is disclosure of what the terms means, but there is no disclosure on how they are determined. For example: what is the linear function used to determine the benefit of publishing the listing without errors? Clearly this information has not being disclosed in the originally filled specification.

16. Applicant's arguments with respect to claims 1-20 have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA C. SANTOS whose telephone number is (571)272-6532. The examiner can normally be reached on MONDAY-FRIDAY 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JANICE MOONEYHAM can be reached on 571-272-6805. 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.

/MARIA C SANTOS/
Examiner, Art Unit 3689
/DENNIS RUHL/
Primary Examiner, Art Unit 3689