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.
16/164,324	10/18/2018	Kevin Gary Smith	P8165-US/312634	5484

121363 7590 07/01/2020

Shook, Hardy & Bacon L.L.P.
(Adobe Inc.)
Intellectual Property Department
2555 Grand Blvd
Kansas City, MO 64108

EXAMINER	
SITTNER, MATTHEW T	

ART UNIT	PAPER NUMBER
3682	

NOTIFICATION DATE	DELIVERY MODE
07/01/2020	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):

IPDocket@shb.com
docket.shb@clarivate.com
seaton@shb.com

Office Action Summary	Application No. 16/164,324	Applicant(s) Smith et al.	
	Examiner MATTHEW T SITTNER	Art Unit 3682	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 18 October 2018 and 05 June 2020.

☐ 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) 12-20 is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-11 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 10/18/2018 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

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

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

Priority under 35 U.S.C. § 119

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

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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

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

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

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

Attachment(s)

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

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

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

4) ☐ Other: _____.

DETAILED ACTION

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.

Status of Claims

Applicant Elects Group I claims without traverse

2. Group I (Claims 1-11) claims are elected (without traverse), are pending, and have been examined.

3. Groups II (Claims 12-17) and III (Claims 18-20) claims are non-elected (withdrawn) without traverse.

4. This action is in reply to the papers filed on 10/18/2018 (originally filed papers) and 06/05/2020 (Response to Election / Restriction).

Information Disclosure Statement

5. No Information Disclosure Statement has been filed.

Amendment

6. The present Office Action is based upon the original patent application filed on 10/18/2018 as modified by the amendment filed on 06/05/2020.

Claim Rejections - 35 USC § 101

7. 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.

8. **Claims 1-11** are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter because the claimed invention is directed to an abstract idea without significantly more. These claims recite a computer readable medium for providing proof and attestation services for claim verification.

9. The claims are being rejected according to the 2019 Revised Patent Subject Matter Eligibility Guidance (Federal Register, Vol. 84, No. 5, p. 50-57 (Jan. 7, 2019)).

Step 1: Does the Claim Fall within a Statutory Category?

10. Yes. Claims 1-11 recite a non-transitory computer readable medium/computer product and, therefore, are directed to the statutory class of a manufacture.

Step 2A, Prong One: Is a Judicial Exception Recited?

11. Yes. The following tables identify the specific limitations that recite an abstract idea. The column that identifies the additional elements will be relevant to the analysis in step 2A, prong two, and step 2B.

Claim 1: Identification of Abstract Idea and Additional Elements, using Broadest Reasonable Interpretation		
Claim Limitation	**Abstract Idea**	**Additional Element**
1. A non-transitory computer readable medium storing computer-usable instructions that, when used by one or more processors, cause the one or more processors to perform operations comprising:		one or more processors

receiving, from a computing device, a request to confirm a statement of truth;	This limitation includes the step of receiving, from a computing device, a request to confirm a statement of truth. But for the computing device, this limitation is directed to receiving known information in order to facilitate providing proof and attestation services for claim verification which may be categorized as any of the following: **mental process** – concepts performed in the human mind (including an observation, **evaluation**, judgment, opinion) and/or **certain method of organizing human activity** – commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations), and/or managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions).	receiving, from a computing device, a request

accessing, based on the received request, a set of privileged-access data repositories to identify a set of results that corresponds at least in part to the statement of truth;	This limitation includes the step of accessing, based on the received request, a set of privileged-access data repositories to identify a set of results that corresponds at least in part to the statement of truth. **No additional elements are positively claimed.** This limitation is directed to accessing and processing known information in order to facilitate providing proof and attestation services for claim verification which may be categorized as any of the following: **mental process** – concepts performed in the human mind (including an observation, **evaluation**, judgment, opinion) and/or **certain method of organizing human activity** – commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations), and/or managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions).	No additional elements are positively claimed.

generating an attestation notification that corresponds to a first result of the identified set of results based at least in part on a veracity score calculated for the first result,	This limitation includes the step of generating an attestation notification that corresponds to a first result of the identified set of results based at least in part on a veracity score calculated for the first result. **No additional elements are positively claimed.** This limitation is directed to generating a notification (i.e., communicating or transmitting known information) in order to facilitate providing proof and attestation services for claim verification which may be categorized as any of the following: **mental process** – concepts performed in the human mind (including an observation, **evaluation**, judgment, opinion) and/or **certain method of organizing human activity** – commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations), and/or managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions).	No additional elements are positively claimed.

wherein the first result includes a confirmation to the statement of truth and the veracity score is calculated based at least in part on a determined correlation between a second result of the identified set of results and the confirmation included in the first result; and	This limitation includes the step of wherein the first result includes a confirmation to the statement of truth and the veracity score is calculated based at least in part on a determined correlation between a second result of the identified set of results and the confirmation included in the first result. **No additional elements are positively claimed.** This limitation is directed to calculating a score based upon known information in order to facilitate providing proof and attestation services for claim verification which may be categorized as any of the following: **mental process** – concepts performed in the human mind (including an observation, **evaluation**, judgment, opinion) and/or **certain method of organizing human activity** – commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations), and/or managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions).	No additional elements are positively claimed.

communicating the generated attestation notification to the computing device as a response to the received request.	This limitation includes the step of communicating the generated attestation notification to the computing device as a response to the received request. But for the computing device, this limitation is directed to transmitting/communicating known information in order to facilitate providing proof and attestation services for claim verification which may be categorized as any of the following: **mental process** – concepts performed in the human mind (including an observation, **evaluation**, judgment, opinion) and/or **certain method of organizing human activity** – commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations), and/or managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions).	communicating the generated attestation notification to the computing device

12. As shown above, the claims recite an abstract idea.

Step 2A, Prong Two: Is the Abstract Idea Integrated into a Practical Application?

13. No. The judicial exception is not integrated into a practical application. The additional elements listed above that relate to computing components are recited at a high level of generality (i.e., as generic components performing generic computer functions such as processing and outputting data) such that they amount to no more than mere instructions to apply the exception using generic computing components. Simply implementing the abstract idea on a

generic computer is not a practical application of the abstract idea. Additionally, the claims do not purport to improve the functioning of the computer itself. There is no technological problem that the claimed invention solves. Rather, the computer system is invoked merely as a tool. Accordingly, the 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. Therefore, these claims are directed to an abstract idea.

Step 2B: Does the Claim Provide an Inventive Concept?

14. No. The claims do not include additional elements that alone or in combination 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 relating to computing components amount to no more than applying the exception using a generic computing components. Mere instructions to apply an exception using a generic computing component cannot provide an inventive concept. Furthermore, the broadest reasonable interpretation of the claimed computer components (i.e., additional elements) includes any generic computing components that are capable of being programmed to receive, process, and communicate/transmit known data. Applicant's Specification (PGPUb. 2020/0126116 [0076]) refers to a general-purpose computer system, but they do not include any technically-specific computer algorithm or code.

15. Additionally, the computer components are used for performing insignificant extra-solution activity and well understood, routine, and conventional functions. For example, the claimed computer receives data, communicates data, and processes data. Activities such as these are insignificant extra-solution activity and, therefore, well understood, routine, and conventional. *See* MPEP 2106.05(d); *see also, e.g., OIP Techs., Inc. v. Amazon.com, Inc.*, 788

F.3d at 1363, 115 USPQ2d at 1092-93 (Presenting offers to potential customers and gathering statistics generated based on the testing about how potential customers responded to the offers; the statistics are then used to calculate an optimized price); *CyberSource v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375, 99 USPQ2d 1690, 1694 (Fed. Cir. 2011) (Obtaining information about transactions using the Internet to verify credit card transactions); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d at 715, 112 USPQ2d at 1754 (Consulting and updating an activity log); *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1354-55, 119 USPQ2d 1739, 1742 (Fed. Cir. 2016) (Selecting information, based on types of information and availability of information in a power-grid environment, for collection, analysis and display); *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1244, 120 USPQ2d 1844, 1856 (Fed. Cir. 2016) (Recording a customer's order); *Return Mail, Inc. v. U.S. Postal Service*, -- F.3d --, -- USPQ2d --, slip op. at 32 (Fed. Cir. August 28, 2017) (Identifying undeliverable mail items, decoding data on those mail items, and creating output data); *Versata Dev. Group, Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1331, 115 USPQ2d 1681, 1699 (Fed. Cir. 2015) (Arranging a hierarchy of groups, sorting information, eliminating less restrictive pricing information and determining the price). Furthermore, limitations such as integrating account details are well-understood, routine, and conventional acitivity. *See Alice Corp.*, 134 S. Ct. at 2359, 110 USPQ2d at 1984 (creating and maintaining "shadow accounts"); Ultramercial, 772 F.3d at 716, 112 USPQ2d at 1755 (updating an activity log).

16. Dependent claims 2-11 further describe the abstract idea. The additional elements of the dependent claims fail to integrate the abstract idea into a practical application and do not amount to significantly more than the abstract idea. Thus, as the dependent claims remain directed to a judicial exception, and as the additional elements of the claims do not amount to significantly

more, the dependent claims are not patent eligible.

17. As such, the claims are not patent eligible.

Invention Could be Performed Manually

18. It is conceivable that the invention could be performed manually without the aid of machine and/or computer. For example, Applicant claims receiving data, generating a notification, and communicating data. Each of these features could be performed manually and/or with the aid of a simple generic computer to facilitate the transmission of data.

19. See also *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, and *In re Venner*, which stand for the concept that automating manual activity and/or applying modern electronics to older mechanical devices to accomplish the same result is not sufficient to distinguish over the prior art. Here, applicant is merely claiming computers to facilitate and/or automate functions which used to be commonly performed by a human.

20. *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 82 USPQ2d 1687 (Fed. Cir. 2007) "[a]pplying modern electronics to older mechanical devices has been commonplace in recent years..."). The combination is thus the adaptation of an old idea or invention using newer technology that is commonly available and understood in the art.

21. In *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958), the court held that broadly providing an automatic or mechanical means to replace manual activity which accomplished the same result is not sufficient to distinguish over the prior art. MPEP 2144.04, III Automating a Manual Activity.

22. MPEP 2144.04 III - Automating a Manual Activity and *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) further stand for and provide motivation for using technology, hardware, computer, or server to automate a manual activity.

23. Therefore, the Office finds no improvements to another technology or field, no improvements to the function of the computer itself, and no meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. Therefore, based on the two-part *Alice Corp.* analysis, there are no limitations in any of the claims that transform the exception (i.e., the abstract idea) into a patent eligible application.

Claim Rejections - Not an Ordered Combination

24. None of the limitations, considered as an ordered combination provide eligibility, because taken as a whole, the claims simply instruct the practitioner to implement the abstract idea with routine, conventional activity.

Claim Rejections - Preemption

25. Allowing the claims, as presently claimed, would preempt others from providing proof and attestation services for claim verification. Furthermore, the claim language only recites the abstract idea of performing this method; there are no concrete steps articulating a particular way in which this idea is being implemented or describing how it is being performed.

Claim Rejections – 35 USC § 102 / § 103 (Prior-art)

26. Claims 1-11 cannot be rejected with prior-art. Individual claimed features are taught in the prior-art, however, the unique combination of features and elements are not taught by the prior-art without hindsight reasoning. The best prior-art (Adderly et al. 2016/0140446) teaches elements of the claimed invention, however, Adderly et al. 2016/0140446 does not teach

> *accessing, based on the received request, a set of privileged-access data repositories to identify a set of results that corresponds at least in part to the statement of truth; generating an attestation notification that corresponds to a first result of the identified set of results based at least in part on a veracity score calculated for the first result, wherein the first result includes a confirmation to the statement of truth and the veracity score is calculated based at least in part on a determined correlation between a second result of the identified set of results and the confirmation included in the first result; ...*

Conclusion

Contact Information

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW T. SITTNER whose telephone number is (571) 270-7137 and email: matthew.sittner@uspto.gov. The examiner can normally be reached on Monday-Friday, 8:00am - 5:00pm.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Waseem Ashraf can be reached on (571) 270-3948. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

29. 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.

/MATTHEW T SITTNER/
Primary Examiner, Art Unit 3682

REMARKS

The Non-Final Office Action mailed July 1, 2020 has been received and reviewed. Prior to the present communication, claims 1-20 were pending and claims 1-11 stand rejected. Each of Claim(s) 1-2, 5-6, and 8-9 has been amended herein. Claims 3-4 and 10-11 are cancelled herein. Claims 21-23 are new. Reconsideration of the subject application is respectfully requested in view of the amendments and the following remarks.

Rejections based on 35 U.S.C. § 101

Claims 1-11 were rejected under 35 U.S.C. § 101 because the claimed invention is purportedly directed to non-statutory subject matter. As claims 3-4 and 10-11 are cancelled, the rejection to these claims is now moot. Applicant respectfully traverses this rejection.

A. The fact that "Generic Components" can be used to implement the claimed functionality is not indicative of subject matter ineligibility.

The Office Action indicates in various sections that "generic components performing generic computer functions" can be used to implement the claimed functionality, which is a reason that step 2A and step 2B of the *Alice* analysis is not met. Specifically, regarding step 2A, the Office Action states that prong I is not met because the elements relate to computing components recited at a high level of generality such that they "amount to no more than mere instructions to apply the exception using generic computing components." (pg. 8). Regarding step 2B, the Office Action again states that "the additional elements relating to computing components amount to no more than applying the exception using generic computing components." (pg. 9) Applicant respectfully disagrees.

The Federal Circuit has made it very clear that the ability of software or other logic to run on a general purpose computer does not doom the claims:

> ...that the improvement is not defined by reference to '***physical***' components does ***not doom the claims***. To hold otherwise risks resurrecting a bright-line machine-or-transformation test...or creating a ***categorical ban on software patents***...Much of the advancement made computer technology consists of improvements to software that, by their very nature, may not be defined by particular ***physical features*** but rather by logical structures and processes. [1]

Accordingly, whether the hardware is generic or not makes no difference. In *McRo*, The Federal Circuit also found that the patent eligible claims were "***embodied in computer software that is processed by general-purpose computers***..."[2] But this did not doom the claims either. As many computer scientists and electrical engineers know, digital logic is always realized in hardware, and whether the solution is flexible (e.g., pure software on a general purpose computer), semi-flexible (e.g., a combination of software and special purpose software), or inflexible (e.g., pure special purpose hardware) is often up to the implementer. In many cases, a software implementation on "generic" hardware is preferable due to flexibility and lower cost. Therefore, software or logic by itself can effect improvements either to technology under the subject matter eligibility analysis regardless of the hardware it runs on.

The Federal Circuit recognized that software can be akin to hardware and that the ***same functionality*** can be achieved through both software and hardware.

> Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract and therefore only properly analyzed at the second step of the *Alice* analysis. ***Software*** can make non-abstract ***improvements to computer technology*** just as hardware improvements can, and sometimes the improvements can be accomplished through either route.[3]

---

[1] *See Enfish, LLC v. Microsoft Corporation*, slip op. 2015-1244, p. 15 (2016).
[2] *McRO, INC v. Bandai Namco Games America, INC,* sip op 2015-1080, p. 24 (September 13, 2016)
[3] *Enfish, LLC v. Microsoft Corporation*, slip op. 2015-1244, 11 (2016)

Accordingly, Applicant submits that the claimed invention improves the ***functionality*** of existing technologies, regardless of the hardware that the functionality is embodied in, which is described in more detail.

B. The claims improve existing data aggregation technologies, as expressly indicated in the specification.

Applicant submits that the claims are not directed to an abstract idea and/or add significantly more because they improve existing technologies. Both the Federal Circuit and the USPTO Guidelines explain that claims directed to an improvement in computer-related technology should be found as being directed to patent eligible subject matter, whether under step 2A or 2B of the *Alice* framework.[4] The Federal Circuit and The *November 2016 Memorandum* also agree that an improvement in computer-related technology is not limited to improvements in the operation of a computer or a computer network per se, but can include a set of "rules" (basically mathematical relationships) that improve computer-related technology via new functions that those technologies have not performed before.[5] In software-based inventions, new functionality is found in the software functions or operations themselves, as opposed to any hardware they are embodied in.[6]

---

[4] *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016); Memorandum of May 19, 2016, titled "Recent Subject Matter Eligibility Decisions" at p. 2.

[5] *See McRO v. Bandai Namco Games Am. Co.*, slip op. at pp. 24 (Fed. Cir. 2016) ("It is the incorporation of the claimed rules, not the use of the computer, that 'improved [the] technological process' by allowing the automation of further tasks."); *See also* Memorandum of Nov. 2, 2016, titled "Recent Subject Matter Eligibility" at p. 2; *see also Finjan, Inc., v. Blue Coat Systems, Inc.*, slip op. at pp. 6 (Fed. Cir. 2018) (holding that the claims were directed to an improvement in computer functionality because they were directed to "a new kind of file that enables a computer security system to ***do things it could not do before.***")

[6] *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d. 1327, 1334, 118 USPQ2d 1684, 1688 (Fed. Cir. 2016) ("Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract and therefore only properly analyzed at the second step of the *Alice* analysis. ***Software*** can make non-abstract ***improvements to computer technology*** just as hardware improvements can, and sometimes the improvements can be accomplished through either route.")

Further, the Federal Circuit and the MPEP agree that one must ***rely*** on the ***specification*** for determining whether the claims are directed to an improvement in computer technology.[7] Specifically, the Federal Circuit has expressly found that a claimed invention was not directed to an abstract idea because it "was directed to an ***improvement*** of an ***existing*** technology [as] bolstered by the ***specification's*** teachings that the claimed invention achieves ***other benefits*** over ***conventional*** [technologies]..."[8]

Applicant submits that the as-filed specification likewise indicates that the claimed invention achieves other benefits over conventional technologies via new functionality. At least paragraphs [0012]-[0013] of the as-filed specification discuss the "existing" or conventional data aggregation technologies. At least paragraph [0012] describes the ***improvement over*** these existing technologies as well.

> [0012] In conventional data aggregation systems, digital information about a particular entity is either provided as a service to advertising entities (e.g., advertisers or marketers) or must be actively sought out by the advertising entities. In some aspects, digital information about entities is collected via a platform, such as a social media platform, and access to entities based on demographic criteria can be sold as a service to advertising entities targeting a particular demographic or entity. In some other aspects, digital information about an entity (e.g., an individual, a company, a group, a demographic) can be actively sought out by interested entities (e.g., advertising or marketing agencies). For instance, digital information can be obtained through data mining of public resources (e.g., the World Wide Web) or by requesting specific details about entities from relatively reliable

[7] *See MPEP* 2106.04(A) (I) "When finding that a claim is directed to such an improvement, it is critical that examiners...evaluate both the specification and the claim." *See also Id.*commenting on *MCRO* ("The court relied on the specification's explanation of how the claimed rules enabled the automation of specific animation tasks that previously could not be automated."); *See also Id.* commenting on *Visual Memory* ("The court also relied on the specification's explanation of the multiple benefits flowing from the claimed memory system, such as the claimed system's outperformance of prior art memory systems and the disclosure of how the claimed system can be used with different types of processors without a tradeoff in processor performance."*); See also Enfish, LLC v. Microsoft Corp.,* 822 F.3d. 1327, 1334, 118 USPQ2d 1684, 1688 (Fed. Cir. 2016) ("It was the specification's discussion of the prior art and how the invention improves...that provided eligibility.");

[8] *Enfish* at 1241.

> sources, such as manufacturers, retailers, e-commerce companies, coupon companies, or other entities who typically keep records about their customers. It is generally known, however, that the information can be inaccurate, and reliance on the accuracy of such information, particularly for the advertising industry, can result in wasted resources and other inefficiencies. In this regard, techniques are described herein to determine the veracity of data received from external sources. Those who store digital information can be disinterested in openly sharing their digital information with other "untrusted" entities, particularly due to privacy and security concerns. In some instances, mechanisms exist to enable requesters, such as advertisers, to obtain tidbits of specifically-requested information, oftentimes associated with a fee. As described, digital information obtained from a single source can come with reliability risks. However, a trusted proof and attestation service capable of verifying a claim (e.g., a statement of fact) based on an analysis of digital information accessed from multiple data sources can mitigate these risks.
>
> [0013] As such, various embodiments described herein are generally directed to a proof and attestation system and related methods that can verify claims about entities or subjects with a calculated and reliable level of certainty. In some embodiments, the proof and attestation system can receive requests from computing devices of interested entities to verify claims about other entities (e.g., advertising targets).

Accordingly, as specifically bolstered by the specification, the claims recite new functionality that improves existing technologies and computers by verifying claims or "statements of facts" electronically, which includes calculating likelihood and relevancy of sources and statements of facts retrieved from a plurality of determined relevant sources.

The claims address ***each*** of these existing technology pitfalls and improvements, as recited in the independent claims themselves. For example, independent claim 1 recites in part:

> receiving a request from a computing device via a network, the received request including a statement of truth;
> ***selecting a primary data repository and a secondary data repository from a plurality of privileged-access data repositories based on a determined relevancy of a first set of keywords included in the statement of truth to a second set of keywords associated with the primary and secondary data repositories***;

> communicating, via the network, the statement of truth to the selected primary and secondary data repositories of the plurality of privileged-access data repositories;
>
> ***receiving a first statement of fact and a second statement of fact from the selected primary and secondary data repositories in response to the communicated statement of truth***, the first statement of fact being received from the primary data repository ***based on a determination that the first statement of fact corresponds at least in part to the statement of truth, and the second statement of fact being received from the secondary data repository based on a determination that the second statement of fact corresponds at least in part to the statement of truth***;
>
> ***generating an attestation notification for the first statement of fact based at least in part on a linguistic analysis indicating that the second statement of fact confirms the first statement of fact***; and
>
> communicating the generated attestation notification to the computing device for display.

Accordingly, this claim recites in great detail, a technique for verifying the veracity of a statement of truth, which includes selecting relevant data repositories, searching the relevant repositories, retrieving results therefrom, and comparing the results to generate an attestation notification. The other claims recite similar functionality. Therefore, the claims improve existing data aggregation systems because (1) the specification, which must be "***relied***" on, indicates as much, and (2) these are functions, as a whole, that no existing technologies and computers perform.

CONCLUSION

For at least the reasons stated above, the pending claims are believed to be in condition for allowance. Applicant respectfully requests withdrawal of the pending rejections and allowance of the claims. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned – 816-474-6550 or kbae@shb.com (such communication via email is herein expressly granted) – to resolve the same. It is believed that all fees due have been paid. However, if this belief is in error, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 19-2112, with reference to Attorney Docket No. P8165-US/312634.

Respectfully submitted,

/KEITH BAE/

Keith J. Bae
Reg. No. 64,633

KJBY/jc
SHOOK, HARDY & BACON L.L.P.
2555 Grand Blvd.
Kansas City, MO 64108-2613
816-474-6550 Telephone
816-421-5547 Fax

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 non-transitory computer readable medium storing computer-usable instructions that, when used by one or more processors, cause the one or more processors to perform operations comprising:

receiving[[,]] a request from a computing device~~, a request to confirm a statement of truth~~ via a network, the received request including a statement of truth;

selecting a primary data repository and a secondary data repository from a plurality of privileged-access data repositories based on a determined relevancy of a first set of keywords included in the statement of truth to a second set of keywords associated with the primary and secondary data repositories;

~~accessing~~ communicating, via the network, the statement of truth ~~based on the received request,~~ to [[a]]the selected [[set]]primary and secondary data repositories of the plurality of privileged-access data repositories ~~to identify a set of results that corresponds at least in part to the statement of truth~~;

receiving a first statement of fact and a second statement of fact from the selected primary and secondary data repositories in response to the communicated statement of truth, the first statement of fact being received from the primary data repository based on a determination that the first statement of fact corresponds at least in part to the statement of truth, and the second statement of fact being received

from the secondary data repository based on a determination that the second statement of fact corresponds at least in part to the statement of truth;

generating an attestation notification for ~~that corresponds to~~ [[a]]the first statement of fact ~~result of the identified set of results based at least in part on a veracity score calculated for the first result, wherein the first result includes a confirmation to the statement of truth and the veracity score is calculated~~ based at least in part on a linguistic analysis indicating that the second statement of fact confirms the first statement of fact ~~a determined correlation between a second result of the identified set of results and the confirmation included in the first result~~; and

communicating the generated attestation notification to the computing device for display ~~as a response to the received request~~.

2. (Currently Amended) The non-transitory computer readable medium of claim 1, wherein the generated attestation notification includes ~~the calculated~~ a veracity score that is calculated based on a confidence that the second statement of fact confirms the first statement of fact.

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) The non-transitory computer readable medium of claim 1, wherein ~~the correlation between the second result and the confirmation included in the first result is determined based further on a determination that the calculated likelihood exceeds a predetermined threshold~~ the linguistic analysis includes calculating a likelihood that the second statement of fact confirms the first statement of fact and comparing the likelihood to a predetermined threshold.

6. (Currently Amended) The non-transitory computer readable medium of claim 1, wherein each ~~privileged access~~ data repository of the [[set]]plurality of privileged-access data repositories is maintained by one of a plurality of computing devices.

7. (Original) The non-transitory computer readable medium of claim 6, wherein each computing device of the plurality of computing devices is associated with one of a plurality of different entities.

8. (Currently Amended) The non-transitory computer readable medium of claim 1, wherein each ~~privileged access~~ data repository of the [[set]]plurality of privileged-access data repositories includes one of a distributed ledger or a database.

9. (Currently Amended) The non-transitory computer readable medium of claim [[8]]2, wherein the instructions, when used by one or more processors, further cause the one or more processors to:

store, in a database, the first ~~result~~ statement of fact and the calculated veracity score, wherein the database is accessible to retrieve the stored first ~~result~~

statement of fact and the calculated veracity score for subsequently-received requests that ~~correspond~~ include to the statement of truth.

10. (Cancelled).

11. (Cancelled)

12. (Withdrawn) A computer-implemented method for generating attestations of data veracity, the method comprising:

receiving, from a remote computing device, a request to verify a fact associated with a particular entity;

searching, by a computing device, a set of privileged-access data repositories having a plurality of pieces of factual data stored therein to identify therefrom a set of results that corresponds at least in part to the fact associated with the particular entity;

generating, by the computing device, an attestation notification that corresponds to a first result of the identified set of results based on a veracity score calculated for the first result, wherein the veracity score is calculated based at least in part on a determined correlation between a second result of the obtained results and the first result; and

communicating, by the computing device, the generated attestation notification to the computing device as a response to the received request.

13. (Withdrawn) The computer-implemented method of claim 12, wherein the generated attestation notification includes the calculated veracity score.

14. (Withdrawn) The computer-implemented method of claim 12, wherein the first result includes data that verifies the fact associated with the particular entity, and the second result includes other data that verifies the data included in the first result.

15. (Withdrawn) The computer-implemented method of claim 14, wherein the request includes a first set of keywords, the first result includes a second set of keywords, and the second result includes a third set of keywords, wherein the first result is determined to verify the fact based on a first calculated likelihood that the second set of keywords corresponds to the first set of keywords, and wherein the correlation between the second result and the selected first result is determined based on a second calculated likelihood that the third set of keywords corresponds at least in part to the second set of keywords.

16. (Withdrawn) The computer-implemented method of claim 15, wherein the determined correlation includes a score that corresponds to the second calculated likelihood.

17. (Withdrawn) The computer-implemented method of claim 1, wherein each data repository of the set of data repositories is stored in one of a plurality of computing devices.

18. (Withdrawn) A computerized system for generating attestations of data veracity, the system comprising:

an attestation notification generating means for generating a notification that corresponds to a first result selected from a set of results retrieved from a plurality of privileged-access data repositories, the set of results being retrieved based on a received request to confirm a statement associated with a particular entity, wherein a veracity score is calculated for the selected first result based at

least in part on a determination that the first result confirms the statement associated with the particular entity and a determined likelihood that a second result of the obtained results verifies the selected first result.

19. (Withdrawn) The computerized system of claim 18, further comprising:

a result scoring means for determining that a result of the retrieved set of results is one of a positive confirmation or a partially positive confirmation of the statement associated with the particular entity, wherein the result is determined the positive confirmation based on a calculated similarity score between the result and the statement exceeding at least a first threshold value, and the result is determined the partially-positive confirmation based on the calculated similarly score exceeding at least a second threshold value and being less than the first threshold value.

20. (Withdrawn) The computerized system of claim 19, further comprising:

a result selection means for selecting the first result based on the first result being determined the positive confirmation, and for selecting the second result to verify the first result based on the determination that the first result is the positive confirmation and the second result being determined the partially positive confirmation.

21. (New) The non-transitory computer readable medium of claim 1, wherein the instructions, when used by one or more processors, further cause the one or more processors to:

determining a veracity score for the first statement of fact, the veracity score corresponding to a determined likelihood that second statement of fact confirms the first statement of fact.

22. (New) The non-transitory computer readable medium of claim 21, wherein the veracity score is determined based further on times associated with the first and second statements of fact.

23. (New) The non-transitory computer readable medium of claim 1, wherein the instructions, when used by one or more processors, further cause the one or more processors to:

include the veracity score in the generated attestation notification.