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EXAMINER	
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ART UNIT	PAPER NUMBER
3689	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

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

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

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Office Action Summary	Application No. 14/950,764	Applicant(s) McCormick et al.	
	Examiner GERARDO ARAQUE JR	Art Unit 3689	AIA 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 11/20/2018.

☐ 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5a) Of the above claim(s) _____ is/are withdrawn from consideration.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: _____.

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.

DETAILED CORRESPONDENCE

Status of Claims

2. **Claims 1, 4 – 6, 13, and 20** have been **amended**.

3. **No claims** have been **cancelled**.

4. **No claims** have been **added**.

Claim Rejections - 35 USC § 112(b)

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 pre-AIA 35 U.S.C. 112, second paragraph:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1 – 7** are rejected under 35 U.S.C. 112(b) or pre-AIA 35 U.S.C. 112, 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.

7. With regards to **claims 1, 4, and 5**, the Examiner is uncertain as to the metes and bounds that make up the structural elements of the data extractor and trade executing machine. The claims have been amended to recite that these elements are "implemented in hardware," however, it is uncertain as to what the hardware is actually supposed to be or what it is limited to. One of ordinary skill in the art would be unable to

determine whether they would be infringing upon the claimed invention as "hardware" is a notoriously broad concept that covers a wide range of nearly infinite different configurations and the specification fails to provide sufficient guidance of what the possible configurations could be. Although, with respect to the "trade executing machine," the specification discloses a list of possible devices, the specification also provides an open ended list of what the devices could be as the specification discloses "or any suitable device operable to communicate with other devices and process data."

Claim Rejections - 35 USC § 112(a)

8. 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 the first paragraph of pre-AIA 35 U.S.C. 112:

> 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.

9. In regards to **claims 1 – 7**, the Examiner asserts that the specification, as originally filed, fails to adequately disclose how the various functions of *"identifies, "receives," "compares," "flags," "reduces," "updates," "increases," are being performed*. Upon review of the specification, the Examiner asserts that the specification fails to clearly link disclose the particular hardware that the applicant was in possession of in order to allow the applicant to have possession of the entire genus of what "hardware" could be. The specification provides an open ended list of what hardware could be used to implement the trade executing machine as the specification discloses "or any

suitable device operable to communicate with other devices and process data." One of skill in the art would be unable what structural elements, hardware, hardware configurations, or devices that the applicant was in possession of in order to make and use the invention and there is insufficient species to allow the applicant to have possession of such a genus.

Simply pointing or stating a result is insufficient to meet the written description requirement and has done nothing but provide a "black box" scenario, wherein information is received into this "black box" and a solution is determined while failing to explain or disclose the processes, calculations, and/or analysis that are being performed in this "black box" environment so as to achieve the solution.

Although one skilled in the art would have found the invention to be enabled because one skilled in the art, with undue experimentation, ***could possibly*** come up with one way of performing the required analysis, one skilled in the art would be unable to determine how the applicant has intended for this analysis to be performed and would, therefore, be unable to determine if the applicant had possession of the invention. To put it another way, one skilled in the art would be unable to make and use the invention in the manner intended by the applicant since the applicant has failed to provide sufficient working examples of how the analysis and solution are determined so as to cover the wide scope laid out by the claimed invention and, therefore, one skilled in the art would be unable to determine whether the applicant had possession of the genus since insufficient species have been provided. ***One skilled in the art would have found that the claimed invention and corresponding specification is attempting to claim all known and unknown possibilities for what the structural***

components could possibly be for performing these functions without providing sufficient examples, in the specification, to allow one skilled in the art to determine whether the applicant had possession of such a wide scope of possibilities.

Finally, as a point of clarification, the first paragraph of 35 U.S.C. § 112 contains a written description requirement **that is separate and distinct from the enablement requirement**. *See AriadPharms., Inc. v. Eli Lilly & Col.*, 598 F.3d 1336, 1340 (Fed. Cir. 2010) (en banc). To satisfy the written description requirement, the 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. *Vas-Cath, Inc. v. Mahurkar*, 935 F. 2d 1555, 1562-63 (Fed. Cir. 1991). Specifically, the specification must describe the claimed invention in a manner understandable to a person of ordinary skill in the art and show that the inventor actually invented the claimed invention.

Therefore, the test for determining whether or not the applicant's claims meet the § 112(a) written description requirement is *possession*, not whether one skilled in the art is *enabled* to perform the invention. Applying the above legal principles to the facts of the case at hand, the Examiner concludes that the applicant's disclosure fails to sufficiently disclose possession at the time of the invention. Furthermore, the applicants are attempting to claim any and all possible manners of what the structural components could be. As the Federal Circuit has stated in *Ariad*:

> "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 Appellant 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 Appellant has made a generic invention that achieves the claimed result and do so by showing that the Appellant 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. By not providing any specific examples of how an indication of merit (which is "functional language") could be calculated, the applicant has failed to provide disclosure, and, therefore, possession, of any species of what the possible structural components could be.

Furthermore, the applicant's claim to such an open-ended genus of structural configurations is similar to the claims at issue in *Ariad* that "merely recite a description of the problem to be solved while claiming all solutions to it." *Id.* At 1353. *Ariad* further states that "Patents are not awarded for academic theories [and a] patent is not a hunting license. It is not a reward for the search, but compensation for its conclusion." *Id.* Therefore, *Ariad* requires that when the applicant claims a genus, sufficient materials must be disclosed to demonstrate that the genus has in fact been disclosed which the applicant has not.

Claim Rejections - 35 USC § 101

10. 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.

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

When considering subject matter eligibility under 35 U.S.C. § 101, it must be determined whether the claim is directed to one of the four statutory categories of invention, i.e., process, machine, manufacture, or composition of matter. If the claim does fall within one of the statutory categories, it must then be determined whether the claim is directed to a judicial exception (i.e., law of nature, natural phenomenon, and abstract idea), and if so, it must additionally be determined whether the claim is a patent-eligible application of the exception. If an abstract idea is present in the claim, any element or combination of elements in the claim must be sufficient to ensure that the claim amounts to significantly more than the abstract idea itself. Examples of abstract ideas include fundamental economic practices, certain methods of organizing human activities, an idea itself, and mathematical relationships/formulas. *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*, 573 U.S. __ (2014).

In the instant case, **claims 1 – 7** are directed to a system (i.e., machine), **claims 8 – 14** are directed to a method (i.e. process), and **claims 15 – 20** are directed to a computer readable storage device (i.e., an article of manufacture). Thus, each of the claims falls within one of the four statutory categories. Nevertheless, the claims fall within the judicial exception of an abstract idea.

Claims 1 – 20 are directed to an abstract idea of commerce, specifically, the management of goods being transported in accordance with trade agreements, terms, and the like. For instance, in *Alice Corp.* the Supreme Court found that "intermediated settlement" was a fundamental economic practice, which is an abstract idea.

In this case, the claimed invention is directed to a fundamental economic practice, and a method of organizing human activities because the claimed invention is directed towards:

concepts relating to the economy and commerce (management of goods being transported in accordance with trade agreements, terms, and the like);

concepts relating to interpersonal and intrapersonal activities, such as managing transactions between people, satisfying legal obligations, and managing human mental activity (*method of managing a transaction between humans*); classifying and storing digital images in an organized manner (*classifying and storing information regarding prohibited transactions in an organized manner*; see ***TLI Comms***); collecting information, analyzing it, and displaying certain results of the collection and analysis (*collecting and analyzing transaction information in a document and displaying results on whether the transaction includes prohibited/restricted content*; see ***Electric Power Group***);

an idea standing alone such as an uninstantiated concept, plan or scheme, as well as a mental process (thinking) that "can be performed in the human mind, or by a human using pen and paper; collecting and comparing known information (*collecting and comparing items in a document with predetermined items*; see ***Classen***); collecting information, analyzing it, and displaying certain results of the collection and analysis (*collecting and analyzing transaction information in a document and displaying results on whether the transaction includes prohibited/restricted content*; see ***Electric Power Group***); comparing data to determine a risk level (*comparing content found in a document with known content to determine if there is a risk to a transaction, i.e. is the*

transaction prohibited, restricted, or the like; see ***Perkin-Elmer***); comparing new and stored information and using rules to identify options (*comparing document information (new) and stored information (stored) and using rules (compatibility/potential//matching) to identify options (is the transaction prohibited, restricted, or the like)*; see ***Smartgene***); data recognition and storage (*recognizing and storing trade terms*; see ***Content Extraction***),

which results in it being fundamental economic practice, a method of organizing human activities, and an idea of itself.

Step 2A: Is the claim **directed** to a law of nature, a natural phenomenon, or an abstract idea? As was discussed above, the claimed invention is, indeed, directed to an abstract idea as it is directed towards the abstract idea of commerce, specifically, "the field of logistics and, more specifically, to preventing restricted trades using physical documents" **(Page 1 of applicant's spec)**. The claimed invention is directed towards performing the well-understood, routine, and conventional activities in the technical field of commerce, i.e. analyzing trade documents and comparing the contents against trade terms to determine if a trade is prohibited, restricted, or the like. Independent **claims 1, 8, and 15** are directed towards the well-understood, routine, and conventional activities of commerce. As a result, the Examiner asserts that the claimed invention is, indeed, directed towards a judicial exception of an abstract idea and is, therefore, not eligible for the "streamlined analysis".

The Examiner further reminds the applicant that the provision of evidence or court decisions that are specifically directed towards the claimed invention or the identified abstract idea is insufficient to eliminate any doubt that the claimed invention is

directed to a judicial exception. The Examiner asserts that an argument that documentary evidence has not been provided in identifying the abstract idea would be unpersuasive. In order to establish that a claim is directed to an abstract idea, the Examiner must provide a reasoned rationale that identifies the concept recited in the claim and explain why it is considered an abstract idea. This can be done by comparing the recited concepts courts have found to be abstract ideas, as was discussed above. Therefore, the Examiner's burden has been met and a proper *prima face* case has been made.

Further, as a reminder, the July 2015 Update: Subject Matter Eligibility explains that courts consider the determination of whether a claim is eligible, which involves identifying whether an exception such as an abstract idea is being claimed, to be a question of law. Accordingly, courts do not rely on evidence, such as publications, to find that a claimed concept is a judicial exception. For example, in *Planet Bingo v VKGS LLC*, it was stated:

> "Moreover, the claims here are ***similar to the claims at issue in Bilski v. Kappos***, 130 S. Ct. 3218 (2010), ***and Alice***, 134 S. Ct. 2347, which the Supreme Court held were directed to "abstract ideas." ***For example, the claims here recite methods and systems for "managing a game of Bingo***." '646 patent col. 8 l. 46; *see also id.* col. 9 l. 33; '045 patent col. 8 l. 64. This is ***similar to the kind of "organizing human activity" at issue in Alice***, 134 S. Ct. at 2356. And, although the '646 and '045 patents are ***not drawn to the same subject matter*** at issue in *Bilski* and *Alice*, ***these claims are directed to the abstract idea of "solv[ing a] tampering problem and also minimiz[ing] other security risks" during bingo ticket purchases***. Appellant's Br. 10, 20. ***This is similar to the abstract ideas of "risk hedging" during "consumer transactions***," *Bilski*, 130 S. Ct. at 3231, ***and "mitigating settlement risk" in "financial transactions***," *Alice*, 134 S. Ct. at 2356–57, that the Supreme Court found ineligible. Thus, we hold that the subject matter claimed in the '646 and '045 patents is directed to an abstract idea."

Finally, the Interim Eligibility Guidelines at 74625 state that "**if there is doubt as to whether the applicant is effectively seeking coverage for a judicial exception itself, the full analysis should be conducted to determine whether the claim recites significantly more than the judicial exception**." Further yet still, the July 2015 Guidelines are state:

> "In particular, the initial burden is on the examiner to explain why a claim or claims are unpatentable clearly and specifically, so that applicant has sufficient notice and is able to effectively respond. For subject matter eligibility, the examiner's burden is met by clearly articulating the reason(s) why the claimed invention is not eligible, for example by providing a reasoned rationale that identifies the judicial exception recited in the claim and why it is considered an exception, and that identifies the additional elements in the claim (if any) and explains why they do not amount to significantly more than the exception. This rationale may rely, where appropriate, on the knowledge generally available to those in the art, on the case law precedent, on applicant's own disclosure, or on evidence.
>
> ...
>
> Accordingly, courts do not rely on evidence that a claimed concept is a judicial exception, and inmost cases resolve the ultimate legal conclusion on eligibility without making any factual findings.
>
> ...
>
> *Alice Corp., Myriad, Mayo, Bilski, Diehr, Flook* and *Benson* relied solely on comparisons to concepts found to be exceptions in past decisions when identifying judicial exceptions.
>
> ...
>
> *Alice Corp., Bilski, Diehr, Flook* and *Benson* did not cite any evidence in support of the significantly more inquiry, even where additional elements were identified as well-understood, routine and conventional in the art. *Mayo* did not cite any evidence in support of identifying additional elements as mere field-of-use or data gathering steps, but did cite the patent's specification when identifying other limitations as well-understood, routine and conventional."

(Pages 6 - 7)

Therefore, the full analysis under *Alice* is still appropriate because applicant's remarks have not eliminated all doubt that the invention is directed to a judicial exception.

Although, one may argue that the claimed invention does not seek to "tie up" the exception because of the claimed invention's narrow scope, the Examiner asserts that clever draftsmanship of further narrowing the abstract idea does not change the fact that the invention is still directed towards an abstract idea. Here, the claimed invention is directed towards a similar scenario because the claimed invention is narrowing the abstract idea of commerce, specifically, analyzing documents pertaining to trade and trade agreements, terms, or the like, i.e. the claimed invention is merely implementing well-known business practices and implementing them in a computer environment that is comprised of generic computing devices to perform generic functions, or, more specifically, applies them in the aforementioned well-understood, routine, and conventional activities that are known in the technical field of commerce.

The CAFC stated the following in *Electric Power Group, LLC v Alstom S.A.*:

> "Information as such is an intangible. *See Microsoft Corp. v. AT & T Corp.*, 550 U.S. 437, 451 n.12 (2007); *Bayer AG v. Housey Pharm., Inc.*, 340 F.3d 1367, 1372 (Fed. Cir. 2003). Accordingly, we have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas. *See, e.g., Internet Patents*, 790 F.3d at 1349; *OIP Techs., Inc. v. Amazon. com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011). In a similar vein, we have treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category. *See, e.g., TLI Commc'ns*,

> 823 F.3d at 613; *Digitech*, 758 F.3d at 1351; *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App'x 950, 955 (Fed. Cir. 2014); *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011); *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010); *see also Mayo*, 132 S. Ct. at 1301; *Parker v. Flook*, 437 U.S. 584, 589–90 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972). And we have recognized that merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis. *See, e.g., Content Extraction*, 776 F.3d at 1347; *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014)."

Also, in *BuySafe, Inc. v. Google, Inc.* (Fed. Cir. 2014), the court stated that "*abstract ideas, no matter how groundbreaking, innovative, or even brilliant, are outside what the statute means by "new and useful process, machine, manufacture, or composition of matter*", and reference is made to *Mryiad* by the court for this position. Also stated in *BuySafe* is

> *"In defining the excluded categories, the Court has ruled that the exclusion applies if a claim involves a natural law or phenomenon or abstract idea,* ***even if the particular natural law or phenomenon or abstract idea at issue is narrow****. Mayo, 132 S. Ct. at 1303.* ***The Court in Mayo rejected the contention that the very narrow scope of the natural law at issue was a reason to find patent eligibility, explaining the point with reference to both natural laws and one kind of abstract idea, namely, mathematical concepts****."*

See also *OIP Techs.*, 788 F3.d at 1362-63, stating:

> "Lastly, although the claims limit the abstract idea to a particular environment that does not make the claims any less abstract for the step 1 analysis."

Again, the Examiner would like to reiterate that this is a rejection under 35 USC 101 and not a rejection under 35 USC 102/103.

Therefore, because independent **claims 1, 8, and 15** include an abstract idea, the claims must be reviewed under Part II of the Alice Corp. analysis to determine whether the abstract idea has been applied in an eligible manner.

Step 2B: The claim(s) does not include additional element that are sufficient to amount to significantly more than the judicial exception because the claim recited generically computer elements (e.g. a computing device) which do not add a meaningful limitation to the abstract idea because they would be routine in any computer implementation.

The Examiner asserts that the claimed invention does not further or improve upon the technology or the technical field as merely having a general purpose device to perform the steps of the abstract idea is nothing more than having the general purpose device perform the well-understood, routine, and conventional activities already known in commerce, which results in the claimed invention not amounting to being "significantly more" than the judicial exception. The Examiner further notes that the decision of *DDR Holdings* does not apply as, unlike *DDR Holdings*, the claimed invention is not "deeply rooted in the technology" since: 1.) humans have, for some time, longed been known to perform the well-understood, routine, and conventional activities in the field of commerce, e.g., gathering the necessary information pertaining to the specifics of the document and trade terms so as to determine a if a trade is prohibited, restricted, or the like; and 2.) the well-understood, routine, and conventional activities of the abstract idea does not change, alter, or improve upon how the technology, i.e. the computing device, fundamentally functions. The invention further fails to improve upon the technical field (commerce) because merely using the general

purpose device to perform the well-understood, routine, and conventional activities of the commerce and that such use of the technology has been held to not be an "inventive concept" as the general purpose device is being used for the very purpose that such device are known to be used for, e.g. more efficient, faster, more cost-efficient, and etc. **(See applicant's specification Pages 8 – 9; Pages 10 – 13; Pages 14 – 15 wherein the invention uses generic computing technology communicating over a generic computing network using generic extraction technology (OCR) as tools in order to perform the well-understood, routine, and conventional activities of the abstract idea. The Examiner asserts that the invention is not focused on the improvement of the technology, using the technology in an unconventional manner, or resolving an issue in technology and actually requires human intervention in order to review information provided by the generic technology so that a human can evaluate the information for accuracy, correctness, and etc. The invention is simply using generic computers and OCR (or the like) for the advantageous that they provide, e.g., speed, efficiency, and etc., and is not concerned with improving the technology.)** Looking at the limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology. Their collective functions merely provide conventional computer implementation.

Further still, unlike *Enfish* where the claims were directed to a specific improvement to the computer's functionality at the time of the invention and where *Enfish* explicitly defined the specific improvements along with the technical aspects of

the improvements to demonstrate the improvements to existing technology, the Examiner asserts that the instant invention does not. In order to determine whether the claimed invention is directed towards an abstract idea and/or that it is "significantly more" than the abstract idea, *Alice* stated that the following considerations must be taken into account before making this determination. Specifically, in *Enfish, LLC v Microsoft Corporation, Fiserv, Inc., Intuit, Inc., Sage Software, Inc., Jack Henry & Associates, Inc.* the courts stated the following:

> "We do not read *Alice* to broadly hold that all improvements in computer-related technology are inherently abstract and, therefore, must be considered at step two. Indeed, some improvements in computer-related technology when appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like. 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. We thus see no reason to conclude that all claims directed to improvements in computer-related technology, including those directed to software, are abstract and necessarily analyzed at the second step of *Alice*, nor do we believe that *Alice* so directs. Therefore, we find it relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the *Alice* analysis."
>
> "For that reason, the first step in the *Alice* inquiry in this case asks whether the focus of the claims is on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database) or, instead, on a process that qualifies as an "abstract idea" for which computers are invoked merely as a tool. ... In this case, however, the plain focus of the claims is on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity."
>
> **(Page 11)**

Enfish provided a background on the state of the art, at the time of the invention, in the technology, namely, with regards to the management of information in a computer database. This served as reference material in order to identify the improvement or, more specifically, establish that the claimed invention of *Enfish* was deeply rooted in the technology and was seeking to remedy a problem that arose from the technology. That is to say, *Enfish* provided a background explanation with regards to the state of the art to establish the flaws that arose from data management and demonstrated that the inventive concept of *Enfish* laid with the improvement of this technology. It was established in *Enfish* that the claimed invention did not contain an abstract idea because it was not directed towards a fundamental economic practice, a method of organizing human activities, an idea of itself, or mathematical relationships/formulas because the inventive concept was directed towards the improvement of the technology, specifically, i.e. although the invention was directed towards the organization of information the invention of *Enfish* was not simply relying on or applying well-understood, routine, and conventional concepts known in the technical field or describing the use of generic devices and technologies to perform an abstract idea, but was, in fact, directed and seeking to improve upon the technology by addressing issues known in the technology. This was further made evident by the disclosure presented in the specification of *Enfish*, which the courts stated the following:

> "The patents teach that multiple benefits flow from this design. First, the patents disclose an indexing technique that allows for faster searching of data than would be possible with the relational model. *See, e.g.*, '604 patent, col. 1 ll. 55–59; *id.* at col. 2 l. 66–col. 3 l. 6. Second, the patents teach that the self-referential model allows for more effective storage of data other than structured text, such as images and unstructured text. *See, e.g.*, '604 patent, col. 2 ll. 16–22; col. 2 ll. 46–52."

(Page 7)

"Finally, the patents teach that the self-referential model allows more flexibility in configuring the database. *See, e.g.*, '604 patent, col. 2 ll. 27–29. In particular, whereas deployment of a relational database often involves extensive modeling and configuration of the various tables and relationships in advance of launching the database, Enfish argues that the self-referential database can be launched without such tasks and instead configured on-the-fly. *See* Oral Argument at 1:00–2:15 http://oralarguments.cafc.ucsourts.gov/default.aspx?fl=20 15-1244.mp3; *see also* '604 patent, col. 7 ll. 10–22. For instance, the database could be launched with no or only minimal column definitions."

(Page 7)

Here, the claims are not simply directed to *any* form of storing tabular data, but instead are specifically directed to a *self-referential* table for a computer database. ... ("The present invention improves upon prior art information search and retrieval systems by employing a flexible, selfreferential table to store data.")

(Pages 14 – 15)

The specification also teaches that the self-referential table functions differently than conventional database structures. According to the specification, traditional databases, such as "those that follow the relational model and those that follow the object oriented model," '604 patent, col. 1 ll. 37–40, are inferior to the claimed invention. While "[t]he structural requirements of current databases require a programmer to predefine a structure and subsequent [data] entry must conform to that structure," *id.* at col. 2 ll. 10–13, the "database of the present invention does not require a programmer to preconfigure a structure to which a user must adapt data entry." *Id.* at col 2 ll. 27–29. Moreover, our conclusion that the claims are directed to an improvement of an existing technology is bolstered by the specification's teachings that the claimed invention achieves other benefits over conventional databases, such as increased flexibility, faster search times, and smaller memory requirements. *See id.* at col 2 ll. 23–27; *see also Openwave Sys., Inc. v. Apple Inc.*, 808 F.3d 509, 513–14 (Fed. Cir. 2015) (finding that a specification's disparagement of the prior art is relevant to determine the scope of the invention).

(Page 15)

In the case of the instant invention, the Examiner asserts that the specification lacks any disclosure of evidence to demonstrate that the invention is seeking to improve upon the technology or, more specifically, that the claimed invention is directed towards addressing and improving upon an issue that arose from the technology, but merely demonstrating that the claimed invention is directed towards the abstract idea and merely applying or utilizing generic computing devices performing their generic functions to carry out the well-understood, routine, and conventional activities in the technical field of commerce due to the benefits that computing devices provided, i.e. faster, more efficient, and etc.. The courts further stated:

> "The Supreme Court has not established a definitive rule to determine what constitutes an "abstract idea" sufficient to satisfy the first step of the *Mayo/Alice* inquiry. *See id.* at 2357. Rather, both this court and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases. "[The Court] need not labor to delimit the precise contours of the 'abstract ideas' category in this case. It is enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here." *Alice*, 134 S. Ct. at 2357; *see also OIP Techs.*, 788 F.3d at 1362. ***For instance, fundamental economic and conventional business practices are often found to be abstract ideas, even if performed on a computer***. *See, e.g.*, *OIP Techs.*, 788 F.3d at 1362–63."
>
> **(Page 10)**
>
> "Moreover, we are not persuaded that the invention's ability to run on a general-purpose computer dooms the claims. Unlike the claims at issue in *Alice* or, more recently in *Versata Development Group v. SAP America, Inc.*, 793 F.3d 1306 (Fed. Cir. 2015), which Microsoft alleges to be especially similar to the present case, Appellee's Br. 18, *see also* Oral Argument at 15:40–18:15, the claims here are directed to an improvement in the functioning of a computer. ***In contrast, the claims at issue in Alice and Versata can readily be understood as simply adding conventional computer components to well-known business practices.*** *See Alice*, 134 S. Ct. at 2358–60; *Versata Dev. Grp.*, 793 F.3d

at 1333–34 (***computer performed "purely conventional" steps to carry out claims directed to the "abstract idea of determining a price using organization and product group hierarchies"***); *see also Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (***claims attaching generic computer components to perform "anonymous loan shopping" not patent eligible***); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367–69 (Fed. Cir. 2015) (***claims adding generic computer components to financial budgeting***); *OIP Techs.*, 788 F.3d at 1362–64 (***claims implementing offer-based price optimization using conventional computer activities***); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–17 (Fed. Cir. 2014) (***claims applying an exchange of advertising for copyrighted content to the Internet***); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354–55 (Fed. Cir. 2014) (***claims adding generic computer functionality to the formation of guaranteed contractual relationships***). ***And unlike the claims here that are directed to a specific improvement to computer functionality, the patent ineligible claims at issue in other cases recited use of an abstract mathematical formula on any general purpose computer***, *see Gottschalk v. Benson*, 409 U.S. 63, 93 (1972), *see also Alice*, 134 S. Ct. at 2357–58, ***or recited a purely conventional computer implementation of a mathematical formula***, *see Parker v. Flook*, 437 U.S. 584, 594 (1978); *see also Alice*, 134 S. Ct. at 2358, ***or recited generalized steps to be performed on a computer using conventional computer activity***, *see Internet Patents*, 790 F.3d 1348–49 (***claims directed to abstract idea of maintaining computer state without recitation of specific activity used to generate that result***), *Digitech Image Techs., LLC v. Electrs. For Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) (***claims directed to abstract idea of "organizing information through mathematical correlations" with recitation of only generic gathering and processing activities***)."

(Pages 16 – 17)

"In sum, the self-referential table recited in the claims on appeal is a specific type of data structure ***designed to improve the way a computer stores and retrieves data in memory***. ***The specification's disparagement of conventional data structures, combined with language describing the "present invention" as including the features that make up a self-referential table, confirm that our characterization of the "invention" for purposes of the § 101 analysis has not been deceived by the "draftsman's art***." *Cf. Alice,* 134 S. Ct. at 2360. In other words, we are not faced with a situation where general-

> purpose computer components are added post-hoc to a fundamental economic practice or mathematical equation. ***Rather, the claims are directed to a specific implementation of a solution to a problem in the software arts***. Accordingly, we find the claims at issue are not directed to an abstract idea."
>
> **(Page 18)**

As a result, the Examiner asserts that, in light of the applicant's specification (see *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *see Genetic Techs. Ltd. v. Merial L.L.C.*, 2016 WL 1393573, at *5 (Fed. Cir. 2016) (inquiring into "the focus of the claimed advance over the prior art")), the claimed invention does not lie with the improvement of a technology, identifying and resolving an issue that arose from the technology, or that the claimed invention is "deeply rooted in the technology", but that the claimed invention is directed towards the abstract idea of commerce and merely utilizing generic computing devices **(see applicant specification citations provided above)** in order to perform the well-understood, routine, and conventional activities known in the field of commerce. As was found in *Alice Corp v CLS Bank*, the claims in *Alice Corp v CLS Bank* also required a computer that processed streams of data, but nonetheless were found to be abstract. There is no "inventive concept" in the claimed invention's use of a general purpose computing devices to perform well-understood, routine, and conventional activities commonly used in the technical field, in this case, commerce.

Consequently, the Examiner asserts that the claimed invention is, in fact, more closely directed related to the decision of, *inter alia*, *TLI Communications, LLC v AV Automotive, LLC*, in that the claimed invention is merely relying on the use of a generic computing device to perform the abstract idea of commerce. As was done in *TLI*

Communications, the Examiner refers to the specification to determine whether the claimed invention amounts to "significantly more" or whether the claimed invention is directed towards the improvement of the technological arts.

Turning to the specification, the Examiner finds that the invention relies on the use of a general purpose computer that is being utilized to store, retrieve, and organize information that can be performed using pen and paper **(see applicant specification citations provided above)**. The Examiner asserts that, unlike *Enfish*, which was directed towards improving how a computer can more efficiently store and manage data, the claimed invention is not directed towards improving how the computer manages the information, but merely directed towards retrieving and providing information. Although the applicant has stated that the invention is supposed to be directed to an improved method of handling information, the Examiner asserts that the specification is not directed towards improving the technology in order to result in an improved method and is, therefore, directed towards simply using the technology as a tool in order to retrieve information and compare information in order to perform the well-understood, routine, and conventional activities of the abstract idea.

The Examiner asserts that the abstract idea, as has been described herein, can be performed by a human using pen and paper as the invention amounts to nothing more than writing down information found in trade documents, reviewing the information for key information, comparing the information against known information (e.g., trade terms, policies, regulation, or the like), and determining if the trade/transaction is prohibited, restricted, or the like. The Examiner asserts that this concept has long been practiced by humans in that, *for example*, federal employees, shipping companies, and

so forth have long been known to evaluate whether a trade should be completed or identified as prohibited, restricted, or the like and that this process is continuously monitored and can change based on human input, as evidenced by the lifting of the 19 year old trade embargo of the Republic of Vietnam that ended in 1994. This abstract idea existed long before computers were ever conceived and, therefore, the instant invention is not deeply rooted in the technology or considered to be computer centric. As will be discussed below, simply providing a computer to perform well-understood, routine, and conventional activities of an abstract idea is insufficient to transform and invention into a non-abstract idea or a demonstration of an improvement to the abstract idea or the technology.

As a result, the Examiner asserts that the claimed invention is similar to the analysis and decision of *Electric Power Group, LLC v. Alstom S.A.*, where the CAFC stated that, "the claims do not go beyond requiring the collection, analysis, and display of available information in a particular field, stating those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology. The claims, defining a desirable information-based result and not limited to inventive means of achieving the result." Further still, as was further discussed in *Electric Power Group, LLC v. Alstom S.A.*, "there is a critical difference between patenting a particular concrete solution to a problem and attempting to patent the abstract idea of a solution to the problem in general."

Further, as has been discussed throughout the Office Action, the type of information that is being managed is insufficient to transform an abstract idea into a

non-abstract idea or to demonstrate that the invention is "significantly more" than the abstract idea. Similar to *Electric Power Group, LLC v. Alstom S.A.*, the claimed invention is simply limiting the claims to a particular environment and is, without more, insufficient to transform them into a patent-eligible applications of the abstract idea at their core. The Examiner asserts that the claims are directed towards the type of information and selecting information for collection, analysis, and display, which do nothing significant to differentiate a process from ordinary mental processes. The claims to not require a new source or type of information, or new techniques for analyzing it and, accordingly, "do not invoke any assertedly inventive programming", but "merely require the selection and manipulation of information—to provide a "humanly comprehensible" amount of information useful for users." The claims "do not require any nonconventional computer, network, or display, or even a 'non-conventional and non-generic arrangement of known, conventional pieces,' but merely call for performance of the claimed information collection, analysis, and display functions using a generic computing device, display, and network. ... Nothing in the claims, understood in light of the specification, requires anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting the desired information. ... ***We have repeatedly held that invocations of computers and networks that are not even arguably invention are 'insufficient to pass the test of an inventive concept in the application' of an abstract idea***."

The specification continues on with disclosing how the disclosed generic computing environment and devices are utilized, for their intended purpose, in order to carry out the claimed invention or, more specifically, the abstract idea of commerce. It

is clear from the applicant's specification that the "claims here are not directed to a specific improvement to computer functionality. Rather, they are directed to the use of conventional or generic technology in a nascent but well-known environment, without any claim that the invention reflects an inventive solution to any problem by combining the two." (Page 8 *TLI Communications, LLC v AV Automotive, LLC*) Similar to *TLI Communications*, the Examiner asserts that the instant invention does not describe any new computing device or communication network/infrastructure and "fails to provide any technical details for the tangible components, but instead predominately describes the system and methods in purely functional terms." (Page 9 *TLI Communications, LLC v AV Automotive, LLC*) The specification simply describes the components in terms of performing generic computing functions and, accordingly, ""are not directed to a solution to a "technological problem" as was the case in *Diamond v Diehr*, 450 U.S. 175 (1981). Nor do the claims attempt to solve a 'challenge particular to the Internet.' *DDR Holdings, LLC v Hotels.com, L.P.*, 773 F.3d 1245, 1256 – 57 (Fed. Cir. 2014); cf. *Intellectual Ventures I*, 792 f.3d at 1371 (because the patent claims at issue did not "address problems unique to the Internet,... *DDR* has no applicability.") (Page 10 *TLI Communications, LLC v AV Automotive, LLC*) Such vague, functional descriptions of computing components/environment are insufficient to transform the abstract idea into a patent-eligible invention. (Page 14 *TLI Communications, LLC v AV Automotive, LLC*)

Instead, the claims, as noted, are simply directed to the abstract idea of commerce. As a result, returning to the second step of the analysis, the Examiner asserts that the claims fail to recite any element that individually or as an ordered combination transform the abstract idea of commerce into a patent eligible application of

that idea. "It is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea. Rather, the components must involve more than performance of '"well-understood, routine, conventional activit[ies]' previously known in the industry." *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 s> Ct. at 1294)." Accordingly, the Examiner asserts that the claims' recitation of generic computing components/environment fail to add an inventive concept sufficient to bring the abstract idea into the realm of patentability.

Even if the applicant were to argue that, even if known in the prior art, the components recited in the claims cannot be "conventional" within the meaning of the *Alice* absent fact-finding by the court, the Examiner asserts that simply looking towards the specification it is clear that the invention describes the computing components/environment as either performing basic computing functions such as sending and receiving data, or performing functions "known" in the art. In other words, the claimed functions are "'well-understood, routine, activit[ies]' previously known in the industry." *Id.* at 2359 (quoting *Mayo*, 132 S. Ct. at 1294). That is to say, the computing components/environment simply provide the environment in which the abstract idea of commerce is carried out. Further, as was stated in *Alice* 134 S. Ct. at 2360 "Nearly every computer will include a 'communications controller' and a 'data storage unit' capable of performing basic calculation, storage, and transmission functions required by the method claims."); *Content Extraction*, 776 F.3d at 1345, 1348 ("storing information" into memory, and using a computer to "translate shapes on a physical page into typeface characters," insufficient confer patent eligibility); *Mortg. Grader*, 811 F.3d at 1324-25 (generic computer components such as an "interface," "network," and

"database," fail to satisfy the inventive concept requirement); *Intellectual Ventures I.* 792 F.3d at 1368 (a "database" and a "communication medium" "are all generic computer elements"); *BuySAFE v Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) ("That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.")

Furthermore, the Examiner further refers to *Affinity Labs of Texas, LLC v DirectTV, LLC* as the instant invention is also "...not tied to any particular technology and can be implemented in myriad ways...," as well as not being directed to a particular way of performing any of the claimed functions, i.e. the claimed invention is simply directed towards generally claiming the use of generic technology and devices to perform generic functions. Again, the "Supreme Court and this court have repeatedly made clear that merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claims any less abstract." "Even if all the details contained in the specification were imported into the '379 claims, the result would still not be a concrete implementation of the abstract idea. In fact, the specification underscores the breadth and abstract nature of the idea embodied in the claims. The specification describes the wireless communication." "While the claim required the use of concrete, tangible components such as a telephone unit and a server, the court noted that the specification made clear that the recited physical components "merely provide a generic environment in which to carry out the abstract idea of classifying and storing digital images in an organized manner." *Id.* at 611. That is to say, "While the inventions in those cases involved tangible components, the components were conventional and were used in conventional ways." Simply put, the

specification and claimed invention does not describe a new type of technology or device, a new method of using the technology, or an improvement to the technology, but, again, directed towards the utilization of generic devices as tools to perform the well-understood, routine, and conventional activities of the abstract idea. "As the Supreme Court stated in *Alice*, "generic computer implementation" is insufficient to transform a patent-ineligible abstract idea into a patent eligible invention. *Alice*, 134 S. Ct. at 2352, 2357. More generally, "simply appending conventional steps specified at a high level of generality" to an abstract idea does not make that idea patentable. *Mayo*, 132 S. Ct. at 1300."

Additionally, the claimed invention is also directed towards the abstract idea of collecting data, recognizing data, and storing the recognized data in order to perform a particular transaction. The Examiner asserts that the concept of data collection, recognition, and storage is undisputedly well-known and, indeed, humans have always performed these functions. As was already discussed above, the claimed invention is merely utilizing general purpose devices (computing device) to perform the steps of data retrieval. Although one may argue that the human mind is unable to process and recognize the electronic stream of data that is being received, transmitted, stored, and etc. by the computing device, the Examiner asserts that this is insufficient to overcoming the rejection under 35 USC 101 (see *Content Extraction and Transmission LLC v Wells Fargo Bank, National Association* where the system uses categories to organize, store, and transmit information, which was considered by the courts to be an abstract idea). The claims in *Alice Corp v CLS Bank* also required a computer that processed streams of data, but nonetheless were found to be abstract. There is no "inventive

concept" in the claimed invention's use of a general purpose computing device to perform well-understood, routine, and conventional activities commonly used in the technical field, in this case, commerce or, more specifically, determining whether a transaction can be completed based on whether the transaction is affected by a blacklist (or the like). (*Content Extraction and Transmission LLC v Wells Fargo Bank, National Association*) At most, the claims attempt to limit the abstract idea of recognizing and storing information using the devices to a particular environment. Such a limitation has been held insufficient to save a claim in this context.

Further still, the steps of receiving and transmitting information between the computing device and the storage of the information are merely directed towards the concept of data gathering and transmitting are considered insignificant extra solution activities. Viewed as a whole, these additional claim elements do not provide meaningful limitations to transform the abstract idea into a patent eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself.

The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements or combination of elements in the claims other than the abstract idea per se amounts to no more than: (i) commerce, and/or (ii) recitation of computer readable storage medium having instructions encoded to perform functions of commerce are well understood, routine, and conventional activities previously known to the industry. Considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea.

Dependent **claims 2 – 7, 9 – 14, and 16 – 20** merely add further details of the abstract steps/elements recited in **claims 1, 8, and 15** without including an improvement to another technology or technical field, an improvement to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment, as has been discussed above. The Examiner asserts that the requirements as set forth by the office and the *Mayo/Alice* framework have been followed. The Examiner has formulated a detailed analysis based on various court decisions as to why the claimed invention is, indeed, an abstract idea. The Examiner has considered the additional features presented in the dependent claims and, as explained in the rejection, the presented features do not add any additional features that have not already been addressed in the rejection above. The Examiner asserts that the burden is now shifted to the applicant to point out where and what features of the claimed invention, i.e. independent and dependent claims, they believe are sufficient to transform the abstract idea into a non-abstract idea or present additional features that raises doubt as to whether those features are considered to be an abstract idea.

Furthermore, the Examiner asserts that the decisions rendered by the courts have followed the *Mayo/Alice* framework and, at no point, has every decision addressed each specific limitation in each dependent claim and provide a separate analysis. On the contrary, similar to the courts, the Examiner has considered the features presented in the dependent claims and has concluded that they do not provide any additional features that would transform the abstract idea into a non-abstract idea nor do they present features that have not already been addressed in the rejection and the cited

court decisions. As was discussed in the rejection, the Interim Eligibility Guidelines at 74625 state that "**if there is doubt as to whether the applicant is effectively seeking coverage for a judicial exception itself, the full analysis should be conducted to determine whether the claim recites significantly more than the judicial exception**." The Examiner further refers to the guidelines that were provided above and found on **Pages 6 – 7** of the July 2015 Guidelines.

Therefore, dependent **claims 2 – 7, 9 – 14, and 16 – 20** are also non-statutory subject matter.

In light of the detailed explanation and evidence provided above, the Examiner asserts that the claimed invention is directed towards the abstract idea of commerce, which a fundamental economic practice, a method of organizing human activities, and an idea of itself. As disclosed, the claimed invention is directed towards wager management (fundamental economic practice and a method of organizing human activities). It is also directed towards being an idea of itself as the claimed invention is directed towards the collection and comparison of information to determine if a trade is prohibited, restricted, or the like. Lacking significantly more for the remainder of the claim, the invention is nothing more than an abstract idea.

Claim Rejections - 35 USC § 103

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

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

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

14. **Claims 1 – 20** are rejected under 35 U.S.C. 103 as being unpatentable over **Howe (US PGPub 2016/0104105 A1)** in view of **Trandal et al. (US Patent 8,442,844 B1)**.

15. In regards to **claims 1, 8, and 15**, **Howe** discloses (**Claim 1**) a system for preventing restricted trades using physical documents, comprising; (**Claim 8**) method for preventing restricted trades using physical documents, comprising; (**Claim 15**) a non-transitory computer readable medium comprising logic, the logic operable, when executed by a processor, to:

a document intake machine comprising a ***[...]*** a data extractor, the document intake machine configured to receive a ***[...]*** trade document from an entity, wherein the ***[...]*** trade document is associated with a transaction of goods, the document intake machine further configured to (**¶ 19, 23 – 25 wherein the system receives a document regarding the shipment of a product from an entity**):

[...] create an electronic file of the ***[...]*** trade document (**¶ 23 - 25 wherein an electronic file is created for the trade document for further analysis**); and

identify, using the data extractor implemented in hardware, trade terms from the electronic file, wherein the trade terms comprise ***one or more of***: an identification of the entity, a shipping address of the goods, and a description of

the goods (**¶ 13, 14, 19, 24, 25, 30 wherein the system reviews the electronic file in order to search for and identify key information for further** analysis, **such as, but not limited to, the identity of the entity, shipping address of the product, and description of the product**);

a trade executing machine implemented in hardware that:

receives the trade terms from the document intake machine (**¶ 13, 14, 19, 24, 25, 30 wherein the system receives the extracted terms for further analysis**);

compares the trade terms to a database of restricted trade terms (**¶ 13, 14, 24, 25, 30, 39 wherein the extracted information is compared to stored information concerning blacklisted merchants, products, and so forth**); and

In regards to:

for each of the trade terms that match a restricted trade term, identifies a confidence level associated with the trade term, wherein the confidence level indicates a likelihood that the transaction of goods is a restricted transaction;

in response to the confidence level being greater than a predetermined threshold:

flags the transaction of goods as a potential restricted transaction

[...]

(Fig. 3; ¶ 14, 24, 25, 28, 39 wherein the system is configured to identify potential shipments of prohibited goods based on the information that it has received about the shipment, e.g., merchant information, product information, and so forth. The Examiner asserts that since the system has

identified a shipment as a ***potential*** shipment of prohibited goods, then the system has determined a confidence level that the shipment is not completely safe or authorized to be shipped and, therefore, flags the shipment for additional analysis in order to verify whether the shipment is prohibited or not. Further still, based on the analysis and current tracked information, the system's database can be updated to add or remove merchants or whether they should remain in the database, which, again, is based on currently available information about the merchant, product, or product type, which can be governed by various regulatory entities or the like. That is to say, regulatory entities are continuously monitoring products that are allowed or prohibited from entering The United States and, therefore, policies can change, e.g., the 19 year old trade embargo of the Republic of Vietnam that ended in 1994.); and

communicates a notification message to the entity, wherein the notification message indicates that the transaction of goods was flagged for evaluation (Fig. 3; ¶ 25 wherein a notification message regarding the analysis is communicated to the entity, as well as other affected/associated entities).

Howe discloses a system and method of analyzing shipping/transaction documents to determine if the shipment of a product is prohibited based on information provided, extracted, and analyzed in a document. Despite using a shipping document, invoice, purchase order, and the like as exemplary documents that are being received an analyzed, Howe fails to explicitly disclose whether it is well-known in the art to

receive a paper document, scan the paper document, and convert the paper document to an electronic file for analysis, as well as whether or not it is well-known in the art to have computer analyzed information to be verified via further review due to the computer not being confident with analyzed results.

To be more specific, **Howe** fails to explicitly teach:

a document intake machine comprising a ***document scanner and*** a data extractor, the document intake machine configured to receive a ***physical*** trade document from an entity, wherein the ***physical*** trade document is associated with a transaction of goods, the document intake machine further configured to:

scan, using the document scanner, the physical trade document to create an electronic file of the ***physical*** trade document; and

flags the transaction of goods as a potential restricted transaction ***needing further evaluation***.

However, **Trandal**, which is also directed to computer based document analysis, further teaches that it is old and well-known in the art to receive a paper document, scan the paper document, and convert the paper document to an electronic file for analysis, as well as having the computer flag unknown or unconfident analyzed information so that further evaluation can be conducted on the scanned and extracted information, e.g., notifying a human to review the information. One of ordinary skill in the art would have found it obvious that the invention is simply a combination of well-known elements working together for their originally designed purpose, i.e. converting physical information into electronic information and having the electronic information analyzed, as well as taking the benefits of having a human review computer analyzed information

if there is any doubt in the analysis as a means of preventing erroneous data analysis, especially in the system and method of **Howe** where information can change due to policy changes, as well as where information needs to be kept accurate and up to date.

(For support see: Col. 8 Lines 14 – 36; Col. 8 – 9 Lines 65 – 8; Col. 45 Lines 4 – 39; Col. 12 – 13 Lines 65 – 27, 42 – 45; Col. 29 – 30 Lines 60 - 11)

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to include in the document analysis system and method of **Howe** with the ability to also be able to receive paper documents and converting the document to electronic form so that its contents can be analyzed while also allowing for secondary review of information having a particular confidence level, as taught by **Trandal**, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

16. In regards to **claims 2, 3, 9, 10, 16, and 17**, the **combination of Howe and Trandal** discloses

(Claim 2, 9, and 16) the system of Claim 1 (method of claim 8; non-transitory medium of claim 15), wherein identifying a confidence level associated with the electronic file further comprises: identify two or more trade terms that match restricted trade terms; increase a total confidence level of the electronic file based on a relationship between the two or more trade terms, both being restricted trade terms; and flag the transaction of goods as a potential restricted transaction;

(Claim 3, 10, and 17) the system of Claim 1 (method of claim 8; non-transitory medium of claim 15), wherein identifying a confidence level associated with the electronic file further comprises: identify two or more trade terms that match restricted trade terms; and decrease the confidence level of the electronic file based on a relationship between the two or more trade terms both being identified in the physical trade document;

(Howe – ¶ 28 wherein categories of goods can be used as the basis of the analysis, thereby demonstrating that a plurality goods are being compared in order to create a category type in order to determine if a specific product falls under the more general product type, which can be determined based on the terms that have been extracted from the document describing the product, where it is being shipped from, from who it is being shipped or sold from, and etc.).

17. In regards to **claims 4, 5, 11, 12, 18, and 19**, the **combination of Howe and Trandal** discloses

(Claims 4, 11, and 18) the system of Claim 1 (method of claim 8; non-transitory medium of claim 15), wherein if in response to further evaluation the transaction of goods is determined not to be a restricted transaction, the trade executing machine implemented in hardware that: reduces the confidence level associated with the trade terms that matched the restricted trade term; updates the database with the reduced confidence level associated with the trade term; and communicates a notification message to the entity, wherein the notification message indicates that the transaction of goods is not restricted;

(Claims 5, 12, and 19) the system of Claim 1 (method of claim 8; non-transitory medium of claim 15), wherein if in response to further evaluation the transaction of goods is determined to be a restricted transaction, the trade executing machine implemented in hardware that: increases the confidence level associated with the trade terms that matched the restricted trade term; updates the database with the increased confidence level associated with the trade term; and communicates a notification message to the entity, wherein the notification message indicates that the transaction of goods is restricted

(As was discussed in the *independent claim* above, the combination of Howe and Trandal discloses that the system and method is continuously tracking and modifying information to determine whether a product or merchant, for example, have been identified as prohibited entities. The Examiner asserts that the information can be updated and, as was stated above, the information can be updated due to policy changes invoked by regulatory agencies, i.e. merchant/products can be added, maintained, or removed from a database thereby resulting in what would have been identified as a prohibited shipment no longer being prohibited or vice versa. As a result, based on the current information, the system will increase or decrease the confidence of extracted information based on information provided to the database that the system is comparing the extracted information with, as well as information that is being provided by other entities, e.g., humans, whereby adding a merchant/product is an increase in confidence that the shipment is a prohibited shipment while a removal is a decrease in confidence that the shipment is a prohibited shipment).

18. In regards to **claims 6, 13, and 20**, the **combination of Howe and Trandal** discloses the system of Claim 1 (method of claim 8; non-transitory medium of claim 15), wherein the electronic file is one selected from the group comprising: Bitmap, TIFF, PNG, JPEG, GIF, and PDF **(Trandal – Col. 12 – 13 Lines 65 – 27 wherein the scanned document can be, at least, the well-known file type of PDF)**.

19. In regards to **claims 7 and 14**, the **combination of Howe and Trandal** discloses the system of Claim 1 (method of claim 8), wherein the physical trade document is ***one from the group*** comprising: an invoice; a purchase order; a transport document, and a letter of credit **(Howe – ¶ 19 wherein the document can be a purchase order or transport document, *for example*.)**.

Response to Arguments

20. Applicant's arguments filed **11/20/2018** have been fully considered but they are not persuasive.

Claim Interpretation under 35 USC 112(f)

21. The claim interpretation under 35 USC 112(f) has been **withdrawn** due to amendments.

Rejection under 35 USC 112(b)

22. The rejections under 35 USC 112(b) has been **withdrawn** due to amendments.

23. A **new** rejection under 35 USC 112(a) has been provided due to amendments.

Rejection under 35 USC 112(a)

24. The rejection under 35 USC 112(a) has been **maintained**, but **modified** due to amendments.

Rejection under 35 USC 101

25. The applicant argues that the invention is directed towards using an unconventional process that enables computer systems to extract terms from a document in a structured manner that provides relational data ready for further processing.

However, the Examiner respectfully disagrees.

The Examiner asserts that the specification fails to provide how this is exactly being performed and, upon further review of the specification, the invention uses generic computing technology communicating over a generic computing network using generic extraction technology (OCR) as tools in order to perform the well-understood, routine, and conventional activities of the abstract idea. The Examiner asserts that the invention is not focused on the improvement of the technology, using the technology in an unconventional manner, or resolving an issue in technology and actually requires human intervention in order to review information provided by the generic technology so that a human can evaluate the information for accuracy, correctness, and etc. The invention is simply using generic computers and OCR (or the like) for the advantageous that they provide, e.g., speed, efficiency, and etc., and is not concerned with improving the technology, using it in an unconventional manner, or resolving an issue that arose from the technology **(See applicant's specification Pages 8 – 9; Pages 10 – 13; Pages 14 – 15)**. Moreover, as is discussed in the rejection under 35 USC 112(a), the specification fails to provide any level of explanation of the hardware that is being used, how it is being improved upon, how it is being used unconventionally, or how it is resolving an issue that arose from the hardware as the specification provides an open-ended list of generic devices that can be used as tools for performing the activities of

the abstract idea. The Examiner asserts that the invention is using the generic technology and programming it with the rules that informs the technology as to what information should be extracted, which is still based on the same generic technology known in the art. That is to say, the applicant is merely using the generic technology known in the art and simply narrowing its application to an environment of use, as well as describing the information that the technology is seeking to extract, parse, and so forth while failing to improve upon the actual process/function itself.

Rejection under 35 USC 102/103

26. The applicant argues that **Howe** fails to disclose the identification of a confidence level.

However, the Examiner respectfully disagrees.

The claim has defined "confidence level" to be an indication of the likelihood that a transaction of goods is a restricted transaction, which the Examiner asserts that **Howe** does as **Howe** discloses that the system has identified a shipment as a *potential* shipment of prohibited goods, then the system has determined a confidence level that the shipment is not completely safe or authorized to be shipped and, therefore, flags the shipment for additional analysis in order to verify whether the shipment is prohibited or not. Further still, based on the analysis and current tracked information, the system's database can be updated to add or remove merchants or whether they should remain in the database, which, again, is based on currently available information about the merchant, product, or product type, which can be governed by various regulatory entities or the like. That is to say, regulatory entities are continuously monitoring products that are allowed or prohibited from entering The United States and, therefore,

policies can change, e.g., the 19 year old trade embargo of the Republic of Vietnam that ended in 1994.

The applicant argues that **Howe** fails to disclose any indication that it is using any method to rank the likelihood that an underlying transaction really is prohibited based on the terms used in the file. However, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., ***ranking*** the likelihood that an underlying transaction really is prohibited based on the terms used in the file) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With regards to the applicant's argument pertaining to **Trandal**, the Examiner asserts that **Trandal** was not used to teach confidence level. The Examiner asserts that **Trandal** is being provided to teach:

> ***scan, using the document scanner, the physical trade document to*** create an electronic file of the ***physical*** trade document; and
>
> flags the transaction of goods as a potential restricted transaction ***needing further evaluation***
>
> ***(emphasis added)***

as **Howe** fails to explicitly disclose whether it is well-known in the art to receive a paper document, scan the paper document, and convert the paper document to an electronic file for analysis, as well as whether or not it is well-known in the art to have

computer analyzed information to be verified via further review due to the computer not being confident with analyzed results.

One of ordinary skill in the art would have found it obvious that the invention is simply a combination of well-known elements working together for their originally designed purpose, i.e. converting physical information into electronic information and having the electronic information analyzed, as well as taking the benefits of having a human review computer analyzed information if there is any doubt in the analysis as a means of preventing erroneous data analysis, especially in the system and method of **Howe** where information can change due to policy changes, as well as where information needs to be kept accurate and up to date.

Therefore, it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to include in the document analysis system and method of **Howe** with the ability to also be able to receive paper documents and converting the document to electronic form so that its contents can be analyzed while also allowing for secondary review of information having a particular confidence level, as taught by **Trandal**, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARDO ARAQUE JR whose telephone number is (571)272-3747. The examiner can normally be reached on Monday - Friday 8-4:30.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minnah L Seoh can be reached on 571-270-7778. 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.

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12/13/2018