



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.
14/860,865	09/22/2015	Jan Speich	510672	4070
53609	7590	07/01/2020	EXAMINER	
REINHART BOERNER VAN DEUREN P.C. 2215 PERRYGREEN WAY ROCKFORD, IL 61107			ZEROUAL, OMAR	
			ART UNIT	PAPER NUMBER
			3628	
			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):

RockMail@reinhartlaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAN SPEICH,
TOBIAS LARSSON, and
MICHAEL HEIART

Appeal 2019-004250
Application 14/860,865
Technology Center 3600

Before HUBERT C. LORIN, JOSEPH A. FISCHETTI, and
CYNTHIA L. MURPHY, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner's Final decision to reject claims 1–20.¹ We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies Deutsche Post AG as the real party in interest. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claimed subject matter relates to “the handling of information on incidents, in particular the handling of information on incidents potentially affecting shipments.” (Spec. para. 2). Claim 1, reproduced below with emphasis added, is illustrative of the claimed subject matter:

1. *A method of responding to an incident so as to minimize disruption of a supply chain, the method being performed by at least one apparatus, the method comprising:
receiving an indication of the incident;
determining whether the incident is located in an area that is defined to surround an entity of a supply chain network, the entity being one of a supply chain node and a supply chain lane, and whether the entity of the supply chain network is relevant for a shipment associated with a company; and
causing a report of the incident to be sent to a user in case at least one criterion is met, the at least one criterion comprising that it is determined that the incident is located in an area that is defined to surround an entity of a supply chain network and that the entity of the supply chain network is relevant for a shipment associated with the company.*

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Williams	US 2015/0046361 A1	Feb. 12, 2015
Harring	US 2013/0342343 A1	Dec. 26, 2013

REJECTIONS

Claims 1–20 are rejected under 35 U.S.C. § 101 as being directed to judicially-expected subject matter without significantly more..

Claims 1–5, 7–14, and 16–20 are rejected under 35 U.S.C. § 102(a)(2) as being anticipated by Williams.

Claims 6 and 15 are rejected under 35 U.S.C. § 103 as being unpatentable over Williams and Haring.

OPINION

The rejection of claims 1–20 are rejected under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

The Appellant argues these claims as a group. *See* Appeal Br. 6–15. We select claim 1 as the representative claim for this group, and the remaining claims 1–24 stand or fall with claim 24. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Preliminary comment

Previous Office guidance on patent subject matter eligibility has been superseded by the 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019), hereinafter “2019 Revised 101 Guidance.” *See* 2019 Revised 101 Guidance, 84 Fed. Reg. at 51 (“Eligibility-related guidance issued prior to the Ninth Edition, R-08.2017, of the MPEP (published Jan. 2018) should not be relied upon.”). Accordingly, we will not address arguments on the sufficiency of the Examiner’s position relative prior guidance but rather our analysis that follows will comport with the 2019 Revised 101 Guidance. We will pay particular attention to the Examiner’s position taken in the Answer and Appellant’s arguments made in the Reply Brief which are expressed in the context of the 2019 Revised 101 Guidance.

Introduction

35 U.S.C. § 101 provides that “[w]hoever 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.”

In that regard, claim 1 covers a “process” and is thus statutory subject matter for which a patent may be obtained.² This is not in dispute.

However, the 35 U.S.C. § 101 provision “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

In that regard, notwithstanding claim 1 covers statutory subject matter, the Examiner has raised a question of patent eligibility on the ground that claim 1 is directed to an abstract idea.

Alice identifies a two-step framework for determining whether claimed subject matter is directed to an abstract idea. *Alice*, 573 U.S. at 217. *Alice step one — the “directed to” inquiry:*

According to *Alice* step one, “[w]e must first determine whether the claims at issue are *directed to* a patent-ineligible concept.” *Alice*, 573 U.S. at 218 (emphasis added).

The Examiner determined that claim 1 is directed to “receiving data about an incident, determining whether the incident affects a node of a

² This corresponds to Step 1 of the 2019 Revised 101 Guidance which requires determining whether “the claim is to a statutory category.” 84 Fed. Reg. at 53. *See also id.* at 53–54 (“consider[] whether the claimed subject matter falls within the four statutory categories of patentable subject matter identified by 35 U.S.C. 101.”).

supply chain and presenting the results of the determining to the user.” Final Act. 9. Specifically,

While independent claims 1, 10 and 20 do not explicitly recite “receiving data about an incident, determining whether the incident affects a node of a supply chain and presenting the results of the determining to the user,” the concept of “receiving data about an incident, determining whether the incident affects a node of a supply chain and presenting the results of the determining to the user” is described by the “receiving, determining and causing” steps/functions of independent claim 1, 10 and 20. “Receiving data about an incident, determining whether the incident affects a node of a supply chain and presenting the results of the determining to the user” is a concept similar to the collecting information, analyzing it, and displaying certain results of the collection and analysis of *Electric Power Group*.

None of independent claims 1, 10 and 20 improve computer performance similar to *Enfish*, include rules that allow a computer to perform new functions similar to *McRo*, or solve a computer or computer network problem with a computer solution similar to *DDR*. For these reasons independent claims 1, 10 and 20 are directed to a judicial exception.

Id.

Appellant argues, *inter alia*, that the claims are not directed to an abstract idea but rather an improvement in the technical field of logistics.

See Reply Br. 10.

Accordingly, there is a dispute over whether claim 1 is directed to an abstract idea. Specifically, is claim 1 directed to “receiving data about an incident, determining whether the incident affects a node of a supply chain and presenting the results of the determining to the user” (Final Act. 9) or an improvement in the technical field of logistics (Reply Br. 10)?

*Claim Construction*³

We consider the claim as a whole giving it the broadest reasonable construction as one of ordinary skill in the art would have interpreted it in light of the Specification at the time of filing.^{4,5,6}

Claim 1 recites 3 steps (“receiving,” “determining,” and “causing”) for “responding to an incident so as to minimize disruption of a supply chain, the method being performed by at least one apparatus.” Claim 1, preamble.

The first step is “receiving an indication of the incident.” While the preamble calls for an “apparatus” to perform this step, this step is nevertheless not attached to any *particular* apparatus. Apart from the

³ “[T]he important inquiry for a § 101 analysis is to look to the claim.” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013). “In *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1273 (Fed. Cir. 2012), the court observed that ‘claim construction is not an inviolable prerequisite to a validity determination under § 101.’ However, the threshold of § 101 must be crossed; an event often dependent on the scope and meaning of the claims.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347–48 (Fed. Cir. 2015).

⁴ “In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.” *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

⁵ “First, it is always important to look at the actual language of the claims. . . . Second, in considering the roles played by individual limitations, it is important to read the claims ‘in light of the specification.’” *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1378 (Fed. Cir. 2017) (J. Linn, dissenting in part and concurring in part) (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016)), among others.

⁶ See 2019 Revised 101 Guidance, 84 Fed. Reg. at 52, footnote 14 (“*If a claim, under its broadest reasonable interpretation.*”) (emphasis added).

“apparatus,” this step could be performed purely mentally. Human minds have long been able to “receiv[e] an indication of [an] incident,” including in attendant to responding to an incident.

The second step is “determining whether the incident is located in an area that is defined to surround an entity of a supply chain network, the entity being one of a supply chain node and a supply chain lane, and whether the entity of the supply chain network is relevant for a shipment associated with a company.” Apart from said “apparatus,” this step, too, could be performed purely mentally. All this steps calls for is determining (a) whether an incident is located in a certain area surrounding an entity and (b) whether the entity is relevant for a shipment.

The last step is

causing a report of the incident to be sent to a user in case at least one criterion is met, the at least one criterion comprising that it is determined that the incident is located in an area that is defined to surround an entity of a supply chain network and that the entity of the supply chain network is relevant for a shipment associated with the company.

According to this step, if an incident is located in a certain area surrounding an entity and the entity is relevant for a shipment, then a report is sent to a user. How the report is sent is left open. The step is reasonably broadly construed as encompassing emailing the report. Notwithstanding that the preamble calls for an “apparatus” to perform this step, printing and mailing would be another common way to “caus[e] a report . . . to be sent to a user.”

Putting it together, the claim is reasonably broadly construed as directed to a scheme for minimizing disruption of a supply chain by reporting on an incident located in a certain area surrounding an entity

relevant for a shipment. This is in line with the Specification's general description of the invention. *See, e.g.*, paras. 2 (“The invention relates to the handling of information on incidents, in particular the handling of information on incidents potentially affecting shipments”) and 7 (“It is an object of the invention to enhance the reporting of incidents to users.”)

Given the method as claimed as reasonably broadly construed above and in light of the Specification's description of the objective of the invention, we reasonably broadly construe claim 1 as being directed to minimizing disruption of a supply chain by reporting on an incident located in a certain area surrounding an entity relevant for a shipment.

*The Abstract Idea*⁷

Above, where we reproduce claim 1, we identify in italics the limitations we believe recite an abstract idea.⁸ Based on our claim construction analysis (above), we determine that the identified limitations describe a scheme for minimizing disruption of a supply chain by reporting on an incident located in a certain area surrounding an entity relevant for a shipment. Minimizing supply chain disruptions, including via reporting on incidents, is a commercial interaction. It falls within the enumerated “[c]ertain methods of organizing human activity” as grouping of abstract

⁷ This corresponds to Step 2A of the 2019 Revised 101 Guidance. Step 2A determines “whether a claim is ‘directed to’ a judicial exception,” such as an abstract idea. Step 2A is two prong inquiry.

⁸ This corresponds to Prong One (a) of Step 2A of the 2019 Revised 101 Guidance. “To determine whether a claim recites an abstract idea in Prong One, examiners are now to: (a) Identify the specific limitation(s) in the claim under examination (individually or in combination) that the examiner believes recites an abstract idea.” 84 Fed. Reg. at 54.

ideas set forth in the 2019 Revised 101 Guidance.⁹ 2019 Revised 101 Guidance, 84 Fed. Reg. at 52.

*Technical Improvement*¹⁰ (*Appellant's Argument*)

Our characterization of what the claim is directed to is similar to that of the Examiner's. The Examiner describes it in somewhat more detail, paralleling the steps of the claimed method; that is, at a lower level of

⁹ This corresponds to Prong One ["Evaluate Whether the Claim Recites a Judicial Exception"] (b) of Step 2A of the 2019 Revised 101 Guidance. "To determine whether a claim recites an abstract idea in Prong One, examiners are now to: . . . (b) determine whether the identified limitation(s) falls within the subject matter groupings of abstract ideas enumerated in Section 1 of the [2019 Revised 101 Guidance]." 84 Fed. Reg. at 54. This case implicates subject matter grouping "(b):" "(b) Certain methods of organizing human activity—fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions)." *Id.* at 52.

¹⁰ This corresponds to Prong Two ["If the Claim Recites a Judicial Exception, Evaluate Whether the Judicial Exception Is Integrated Into a Practical Application"] of Step 2A of the 2019 Revised 101 Guidance. "A claim that integrates a judicial exception into a practical application will apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception." 84 Fed. Reg. at 54. One consideration, implicated here, that is "indicative that an additional element (or combination of elements) may have integrated the exception into a practical application" is if "[a]n additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field." *Id.* at 55.

abstraction. But “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240–41 (Fed. Cir. 2016) (“The Board’s slight revision of its abstract idea analysis does not impact the patentability analysis.”).

We have reviewed the record and are unpersuaded as to error in our or the Examiner’s characterization of what claim 1 is directed to.

Appellant presents a section entitled “A. The Examiner erred by distilling the claims down to a gist in identifying the alleged abstract idea” (Appeal Br. 6 (emphasis omitted)) that contends that the Examiner wrongly distilled the claims into a gist of the invention and in doing so failed to identify an abstract idea recited in the claims. We disagree with that assessment.

Above we stated that the Examiner determined that claim 1 is directed to “receiving data about an incident, determining whether the incident affects a node of a supply chain and presenting the results of the determining to the user.” Final Act. 9. Accordingly, the Examiner *did* identify an abstract idea. That the Examiner used words such as “data” and “affects” that do not precisely mirror what is recited in the claim does not change the fact that, in following step one of the *Alice* framework, the Examiner provided a characterization of the subject matter to which the claim is directed to and properly determined that said subject matter is an abstract idea. As we have shown by our claim construction analysis set forth above, whereby we considered the claim as a whole giving it the broadest reasonable construction as one of ordinary skill in the art would have interpreted it in light of the Specification at the time of filing, the Examiner’s characterization of what the claim is directed to is similar to ours. We are

satisfied that the Examiner did not distill the claim into a gist of an invention so unrelated to what is claimed as to undermine the determination under step one of the *Alice* framework that the claim is directed to an abstract idea as the Examiner has characterized it.

The section entitled “B. The Examiner erred by admittedly not considering the claims in their entirety, including the preamble” (Appeal Br. 8) (emphasis omitted) makes a similar contention. But we are satisfied that that the Examiner did not overlook claim limitations, such as the preamble, in reaching the determination under step one of the *Alice* framework that the claim is directed to an abstract idea as the Examiner has characterized it. At any rate, we have done so in our claim construction analysis.

Appellant also argues that

The limitations in the body of claims 1, 10, and 20 invoke the limitations of the preamble (e.g., with reference back to the incident introduced in the preamble and to segments of a supply chain, such as nodes and lanes) so as to provide a specific method for addressing a specific problem in a specific way. *Vanda Pharm. Inc. v. West-Ward Pharm. Int'l Ltd.*, 887 F.3d 1117, 1136 (Fed. Cir. 2018) (discussing the identification of a specific problem and specific steps for addressing that problem).

Appeal Br. 8. According to Appellant, “the claims do not recite an abstract idea with a step of applying it, and instead, the claims identify a specific problem and recite specific steps to address that problem.” *Id.* A similar argument is made in the section entitled “C. The Examiner erred by relying on an inapposite comparison to the claims of *Electric Power Group* in determining that the present claims are directed to an abstract idea.” *Id.* (emphasis omitted).

The difficulty with this argument is that identifying a specific problem and reciting specific steps to address the problem is not determinative of whether a claim is directed to an abstract idea under step one of the *Alice* framework. *Vanda* does not say otherwise. “In *Vanda*, the claims recited an actual *improved* treatment for schizophrenia,” *INO Therapeutics LLC v. Praxair Distribution Inc.*, 782 F. App’x 1001 (Fed. Cir. 2019) (emphasis added). Here, no technical improvement is evident, notwithstanding the claim recites steps to address a problem.

Regarding any technical improvement, Appellant does argue that the claims amount to an improvement to a technical field, specifically the technical field of logistics. In particular, the method according to the present claims provides the “advantage that data on shipments that is available and regularly updated anyhow can be exploited,” which allows “the data for a supply chain network [to] be assembled automatically and quite comprehensively with no or reduced burden on the company.” Specification, para. [0022]. Additionally, the method has the advantage “that detected incidents may be filtered to reduce the number of incidents that are reported to the user.” Specification, para. [0011]. . . . [T]he method is distinguished by the ability to store information about a supply chain network, not just about a current journey. In this regard, data regarding the supply chain network is readily available whenever needed, such as re-routing when a different incident affects a current journey. Accordingly, the claims represent an improvement in the technical field of logistics.

Reply Br. 10.

The difficulty with this argument is that it is not commensurate in scope with what is claimed. Regular updating of data, automatic assembling of data, and storing information, to name a few of the argued-over features, are nowhere mentioned in the claim.

The claim is not focused on any technical improvement but rather on a scheme for minimizing disruption of a supply chain by reporting on an incident located in a certain area surrounding an entity relevant for a shipment. Minimizing disruption in the general way claimed, devoid of technical details explaining how it is accomplished, is not a technical improvement. *Cf. Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1378, 1384 (Fed. Cir. 2019) (“The claims are focused on providing information to traders in a way that helps them process information more quickly, ’556 patent at 2:26–39, not on improving computers or technology.”).

For the foregoing reasons, the Appellant’s logistics-improvement argument is unpersuasive as to error in the Examiner’s or our characterization of what the claim is directed to because the record fails to adequately support it. Without more, the argument alone is unpersuasive. *See generally In re Glass*, 474 F.2d 1015, 1019 (CCPA 1973); *see also In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974); and *In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984); and *In re Schulze*, 346 F.2d 600, 602 (CCPA 1965).

We have carefully reviewed the claim. Per our previous claim construction analysis, claim 1 is reasonably broadly construed as a scheme for minimizing disruption of a supply chain by reporting on an incident located in a certain area surrounding an entity relevant for a shipment. We see no specific asserted improvement in logistics or computer capabilities recited in the claim.

The claim provides no additional structural details that would distinguish the recited “apparatus” from any other generic counterparts.¹¹

With respect to the “receiving,” “determining,” and “causing a report” steps, the Specification attributes no special meaning to any of these operations, individually or in the combination, as claimed. In our view, even if assuming arguendo that the claimed “apparatus” was limited to a computer, these are common computer processing functions that one of ordinary skill in the art at the time of the invention would have known generic computers were capable of performing and would have associated with generic computers. *Cf. OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015)

Beyond the abstract idea of offer-based price optimization, the claims merely recite “well-understood, routine conventional activit[ies],” either by requiring conventional computer activities or routine data-gathering steps. *Alice*, 134 S.Ct. at 2359 (quoting *Mayo*, 132 S.Ct. at 1294) For example, claim 1 recites “sending a first set of electronic messages over a network to devices,” the devices being “programmed to communicate,” storing test results in a “machine-readable medium,” and “using a computerized system . . . to automatically determine” an estimated outcome and setting a price. Just as in *Alice*, “all of these computer functions are ‘well-understood, routine, conventional activit[ies]’ previously known to the industry.” *Alice*, 134 S.Ct. at 2359 (quoting *Mayo*, 132 S.Ct. at 1294) (alterations in original); *see also buySAFE[, Inc. v. Google, Inc.]*, 765 F.3d [1350,] 1355 [(Fed. Cir. 2014)] (“That a computer

¹¹ *Cf. Move, Inc. v. Real Estate Alliance Ltd.*, 721 F. App’x 950, 954 (Fed. Cir. 2018) (non-precedential) (“Claim 1 is aspirational in nature and devoid of any implementation details or technical description that would permit us to conclude that the claim as a whole is directed to something other than the abstract idea identified by the district court.”).

receives and sends the information over a network—with no further specification—is not even arguably inventive.”).

At best, the “apparatus” distinguishes over other generic devices known at the time the application was filed in the *type* of information being processed — such as, “an indication of the incident.” But that alone is not patentably consequential. This is so because “[c]laim limitations directed to the content of information and lacking a requisite functional relationship are not entitled to patentable weight because such information is not patent eligible subject matter under 35 U.S.C. § 101.” *Praxair Distribution, Inc. v. Mallinckrodt Hosp. Prods. IP Ltd.*, 890 F.3d 1024, 1032 (Fed. Cir. 2018).

Accordingly, within the meaning of the 2019 Revised 101 Guidance, we find there is no integration of the abstract idea into a practical application.

We have considered Appellant’s other arguments challenging the Examiner’s determination under step one of the *Alice* framework and find them unpersuasive. For the foregoing reasons, the record supports the Examiner’s determination that claim 1 is directed to an abstract idea.

*Alice step two — Does the Claim Provide an Inventive Concept?*¹²

Step two is “a search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in

¹² This corresponds to Step 2B, of the 2019 Revised 101 Guidance, 84 Fed. Reg. at 56 “if a claim has been determined to be directed to a judicial exception under revised Step 2A, examiners should then evaluate the additional elements individually and in combination under Step 2B to determine whether they provide an inventive concept (*i.e.*, whether the additional elements amount to significantly more than the exception itself).”

practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 573 U.S. at 217–18 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)).

In that regard, the Examiner determined that the claim(s) do not include “additional elements” that are sufficient to amount to significantly more than the judicial exception because the additional computer elements, which are recited at a high level of generality, provide conventional computer functions that “do not [add] meaningful limitations [to] practicing the abstract idea.” Ans. 6, 12; *see also* Final Act. 3. We agree.

We addressed the matter of whether there were any purported specific asserted improvements in logistics and computer capabilities in our analysis above under step one of the *Alice* framework. This is consistent with the case law. *See Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018) (“We have several times held claims to pass muster under *Alice* step one when sufficiently focused on such improvements.”). Such an argument can also challenge a determination under step two of the *Alice* framework. *See buySAFE*, 765 F.3d at 1354–55. “[R]ecent Federal Circuit jurisprudence has indicated that eligible subject matter can often be identified either at the first or the second step of the *Alice/Mayo* [framework].” *See* 2019 Revised 101 Guidance, 84 Fed. Reg. at 53, n.17.

Be that as it may, we are unpersuaded that claim 1 presents an element or combination of elements indicative of a specific asserted technical improvement in logistics or computer capabilities, thereby rendering the claimed subject matter sufficient to ensure that the patent in practice amounts to significantly more than a patent upon a scheme for minimizing disruption of a supply chain by reporting on an incident located in a certain

area surrounding an entity relevant for a shipment. We have reviewed the claim in light of the Specification and, as explained above, we can find no suggestion of any improvement as a result of performing the steps as broadly as they are recited.

The Specification is evidence that the claimed “apparatus” is conventional. *See* Spec. e.g., para. 12 (“The apparatus can be for example a server or a module for a server. The means could be hardware means, software means or a combination of both.”) In so citing to the Specification, we have followed “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP Inc.*], 881 F.3d 1360 (Fed. Cir. 2018)],” USPTO Memorandum, Robert W. Bahr, Deputy Commissioner For Patent Examination Policy, April 19, 2018 (the “*Berkheimer* Memo”).

Here, the Specification indisputably evidences the recited “apparatus” individually and in the context as claimed was conventional at the time of filing. Accordingly, there is sufficient factual support for the well-understood, routine, or conventional nature of the claimed “apparatus,” individually or in the combination as claimed.

The Appellant argues that

With respect to *Mayo*’s “significantly more” analysis in Step 2B, the Examiner has erred by only looking at hardware components themselves recited in the claims, such as processors, memory, apparatus, etc. . . . Here, the Examiner has ignored whether the way in which the method is performed is, in and of itself, unconventional, non-routine, or not well-understood. Indeed, the Examiner has failed to consider whether, e.g., a step of determining if the incident near an entity involves “the entity of the supply chain network [that] is relevant for a shipment

associated with a company” is routine, convention, or well-understood.

Appeal Br. 11.

The difficulty with this argument is that it looks to the claim’s result-based functional language as the basis for contending that the claim is something that is not routine, conventional or well-understood and thereby adds “significantly more.” Rather than being based on any technical details, the argument looks to the very scheme (“receiving,” “determining,” and “causing to report”) that we have already characterized as being an abstract idea. In effect, the Appellant is arguing that the abstract idea is not routine, conventional or well-understood. But “[g]roundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.” *Ass’n for Molecular Pathology*, 569 U.S. at 591. The non-routine, unconventional and not well-understood nature of the abstract idea does not affect the determination that the claim is directed to an abstract idea. The abstract idea itself cannot amount to “significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 573 U.S. at 218, (quoting *Mayo*, 566 U.S. at 73), whether or not it is non-routine, unconventional and not well-understood.

We are unpersuaded that claim 1 presents an element or combination of elements indicative of a specific asserted technical improvement, thereby rendering the claimed subject matter sufficient to ensure that the patent in practice amounts to significantly more than a patent upon a scheme for minimizing disruption of a supply chain by reporting on an incident located in a certain area surrounding an entity relevant for a shipment.

No other persuasive arguments having been presented, we conclude that no error has been committed in the determination under *Alice* step two that claim 1 does not include an element or combination of elements circumscribing the patent-ineligible concept it is directed to so as to transform the concept into an inventive application.

We have considered all of the Appellant's arguments (including those made in the Reply Brief) and find them unpersuasive.

Accordingly, because we are not persuaded as to error in the determinations that representative claim 1, and claims 2–24 which stand or fall with claim 1, are directed to an abstract idea and do not present an “inventive concept,” we agree with the Examiner's conclusion that they are directed to patent-ineligible subject matter for being judicially-expected from 35 U.S.C. § 101. *Cf. LendingTree, LLC v. Zillow, Inc.*, 656 F. App'x 991, 997 (Fed. Cir. 2016) (“We have considered all of LendingTree's remaining arguments and have found them unpersuasive. Accordingly, because the asserted claims of the patents in suit are directed to an abstract idea and do not present an ‘inventive concept,’ we hold that they are directed to ineligible subject matter under 35 U.S.C. § 101.”); *see, e.g., OIP Techs.*, 788 F.3d at 1364; *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016).

The rejection of claims 1–5, 7–14, and 16–20 under 35 U.S.C. § 102(a)(2) as being anticipated by Williams.

All the independent claims (claims 1, 10, and 20) require “determining whether the incident is located in an area that is defined to surround an entity of a supply chain network, the entity being one of a

supply chain node and a supply chain lane, and whether the entity of the supply chain network is relevant for a shipment associated with a company.”

According to the Examiner this is described in paragraphs 4, 28–31, 65, 76, 87 of Williams. Final Act. 11. The cited passages are reproduced below:

- [0004] In one disclosed embodiment, a method for managing a shipped physical object is disclosed. The method comprises receiving data associated with a journey of the shipped object, determining, using a processor, an alert condition based on the received data, wherein the alert condition is representative of a risk of damage, loss, or delay associated with the shipped object, transmitting one or more alternative options for mitigating the alert condition to a user, receiving a selection of one of the alternative options, and modifying the journey based on the received selection.
- [0028] In some embodiments, host carrier system 130 may receive data from one or more third party systems 150 by a data interface such as, for example, an application programming interface (API). Third party system 150 may be operated by a third party entity such as a partner carrier, a news service, a weather service, a government agency, or any other entity involved in the shipping process.
- [0029] Partner carriers may include, for example, airlines, shipping lines, trucking lines, railways, or couriers. Host carrier system 130 may receive data associated with a journey from one or more third party systems 150 operated by partner carriers such as, for example, scheduling data, delay data, pricing data, and package scan data. Scheduling and delay data may include, for example, timetables, information regarding delays, mechanical breakdowns, accidents, and cancellations. Pricing data may include, for example, price rates for different package sizes, weights, routes, modes of transportation, and shipping speed. Package scan data may include, for example, time-stamped location information of a package. Package scan data may also include, for example, annotations for each scan to indicate package arrival at a location, processing, departure, hand-off to customs, receipt from customs, hand-off to another carrier, and final destination delivery. In some embodiments, host carrier system 130

may maintain a database of flight data including host carrier flights and partner carrier flights.

- [0030] In some embodiments, one or more third party system 150 are operated by a local or national news service. Host carrier system 130 may receive news data from the news service regarding events that may impact shipping efficiency such as, for example, road, rail, airport, or sea port closures, natural disasters, evacuations, holidays, crime reports, and any other local or national news regarding situations that may impact the shipping industry.
- [0031] In some embodiments, one or more third party system 150 are operated by a local or national weather service. Host carrier system 130 may receive weather data from the weather service such as, for example, precipitation forecasts, storm and inclement weather forecasts, storm path tracking and forecasts, heat alerts, temperature forecasts, weather trends, historical weather data, and any other weather data that may be relevant to shipping efficiency.
- [0065] In step 460, server 210 determines whether one or more alert conditions have been identified. Alert conditions may include, for example, the risk of damage to package contents from heat or excessive motion sensed by sensor device 120. As another example, alert conditions may include flight delays due to weather, holiday high volume congestion, or delays in customs ports/terminals.
- [0076] In step 516, server 210 may update third party data 226 stored in database 220 with newly received third party data. Data models may be updated in step 517. One or more data models may be created and updated using predictive analytics module 217. The data models may incorporate various portions of host carrier data 221, customer data 222, journey data 224, third party data 226, and/or analytics data 228. Furthermore, data for all of the host carrier's customers may be anonymized and incorporated into the data models, to improve accuracy. Data models may allow predictive analytics module 217 to predict future alert conditions based on data for a current journey. For example, a data model may be generated to simulate the effects of seasonal weather patterns on package contents, using sensor device 120 temperature readings, historical weather data, weather forecast data, and historical reports of heat damage. Such a data model may alert customer 112 and host carrier system 130 of probable heat damage, based on the current journey data input into the data model. As another example, one or more data

models may simulate the effects of various journey modifications, to provide better recommendations to customer 112. Expanding upon the weather model example discussed above, the data model may incorporate weather patterns of alternative routes, weather effects on different transportation methods, or the temperature effect on different shipping speeds. Server 210 may use such a model to generate recommendations for customer 112 to highlight the alternative options that would best suit customer 112's needs, further discussed with regard to FIG. 6.

- [0087] FIGS. 9-13 illustrate exemplary graphic user interfaces generated by server 210 based on detected alert conditions and outputs of predictive analytics module 217. Predictive analytics module 217 may perform continuous background processing of some or all data received from sensor device 210, third party systems 150, customer device 110, and host carrier terminal 230, as well as host carrier data 221, customer data 222, journey data 224, third party data 226, and analytics data 228. Predictive analytics module 217 may determine aspects for a current journey, or for a new journey being created by customer 112, by analyzing historically collected data to detect trends and patterns. Aspects may include, for example, cost, estimated time of journey, probability that the package will become off pace (e.g., delayed) or off track (e.g., lost), arrive safe and sound, experience tampering, damage, or other types of loss. Probabilities of delay may be determined by analyzing, for example, occurrences and patterns of flight or trip cancellations by different carriers, weather patterns at certain times of the year, traffic due to holidays, or average times for passing through different ports of customs agencies.

We are unable to discern from reading these passages whether Williams describes, expressly or inherently, the claimed determining step. The Final Action is of little assistance because it does not fully explain what in these passages the Examiner has equated to the “supply chain network,” the “entity,” and the “supply chain lane,” among other elements, of the claimed determining step. Although, the Examiner does appear to equate Williams’ “airport, terminal” to the claimed node. *See* Final Act. 11. The

Answer makes an effort but it, too, is insufficient. Various terms in the claimed determining step (e.g., “supply chain lane”) are not mentioned in Williams and the Examiner does not point us to anything specific in these disclosures. Factual findings that “each and every limitation is found either expressly or inherently in [that] single prior art reference” is required before a determination is made that a claim is anticipated. *Celeritas Techs., Ltd. v. Rockwell Int’l Corp.*, 150 F.3d 1354, 1361 (Fed. Cir. 1998). Since that has not been done, a prima facie case of anticipation has not been made out in the first instance and for that reason the rejection is not sustained.

The rejection of claims 6 and 15 under 35 U.S.C. § 103 as being unpatentable over Williams and Harring.

Claims 6 and 15 depend from independent claims 1 and 10, respectively. The Examiner relies on Williams for describing the subject matter of claims 1 and 10. Since we have been unable to discern whether Williams in fact describes the determining step of said subject matter and given that claims 6 and 15 necessarily include the subject matter of the independent claims from which they depend, a prima facie case of obviousness for the subject matter of claims 6 and 15 has also not been made out in the first instance.

CONCLUSION

The decision of the Examiner to reject claims 1–20 is affirmed.

More specifically:

The rejection of claims 1–20 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter is affirmed.

The rejection of claims 1–5, 7–14, and 16–20 under 35 U.S.C.

Appeal 2019-004250
Application 14/860,865

§ 102(a)(2) as being anticipated by Williams is reversed.

The rejection of claims 6 and 15 under 35 U.S.C. § 103 as being unpatentable over Williams and Harring is reversed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	101		1–20	
1–5, 7–14, 16–20	102	Williams		1–5, 7–14, 16–20
6, 15	103	Williams, Harring		6, 15
Overall Outcome			1–20	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED