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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/848,140	08/30/2007	UMESH APTE	50277-3309	3273

42425                      7590                      04/18/2018  
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SAN JOSE, CA 95113

EXAMINER
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MAGUIRE, LINDSAY M

ART UNIT	PAPER NUMBER
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3693

NOTIFICATION DATE	DELIVERY MODE
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04/18/2018

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* UMESH APTE, JASON ARON ALONZO,  
and JOHN LEONG YEE

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Appeal 2016-008640<sup>1</sup>  
Application 11/848,140<sup>2</sup>  
Technology Center 3600

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Before MICHAEL W. KIM, NINA L. MEDLOCK, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEDLOCK, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 4, 6–8, 20, and 22–24. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> Our decision references Appellants’ Appeal Brief (“App. Br.,” filed February 22, 2016) and Reply Brief (“Reply Br.,” filed September 19, 2016), and the Examiner’s Answer (“Ans.,” mailed July 20, 2016) and Final Office Action (“Final Act.,” mailed September 10, 2015).

<sup>2</sup> Appellants identify Oracle International Corporation as the real party in interest. App. Br. 2.

CLAIMED INVENTION

Appellants' claimed invention "relates generally to information technology" and, more specifically, to "comparing a financial location derived from a physical location to a financial location associated therewith by a financial system" (Spec. ¶ 1).

Claims 4 and 20 are the independent claims on appeal. Claim 4, reproduced below with bracketed notations added, is illustrative of the claimed subject matter:

4. A method comprising:

[(a)] storing in a repository, by a computing system that comprises one or more processors, data that describes one or more attributes of one or more devices;

[(b)] wherein the one or more devices are communicatively couplable with a network;

[(c)] wherein at least one of the one or more attributes corresponds to a financial location defined by a financial system;

[(d)] wherein the repository stores information associated with each of the one or more devices;

[(e)] wherein the repository stores a first mapping between:

[(e1)] each of the one or more devices, and a financial location of record corresponding to each device;

[(f)] detecting, by the computing system, a router or switch, which communicatively couples the one or more devices to the network;

[(g)] upon detecting the router or switch, identifying, by the computing system:

[(g1)] an identity of the router or switch; and

[(g2)] port numbers, of the router or switch, through which the one or more devices are communicatively coupled with the network;

[(h)] determining, by the computing system, a physical location that is associated with at least one of:

[(h1)] the identity of the router or switch; or

[(h2)] the port numbers of the router or switch; and

[(i)] storing, by the computing system, a second mapping between a plurality of physical locations and a plurality of financial locations, wherein the second mapping associates each of the physical locations with one or more of the financial locations;

[(j)] determining, by the computing system, based at least in part on the physical location and the second mapping, a physically-derived financial location;

[(k)] determining, by the computing system, based at least in part on the first mapping, a financial location of record corresponding to a device of the one or more devices;

[(l)] performing a comparison, by the computing system, between the physically-derived financial location and the financial location of record for the device; and

[(m)] based on the comparison, detecting, by the computing system, a mismatch between the physically-derived financial location and the financial location of record for the device;

[(n)] in response to detecting the mismatch, notifying a user of the mismatch.

#### REJECTION

Claims 4, 6–8, 20, and 22–24 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.<sup>3</sup>

#### ANALYSIS

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and

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<sup>3</sup> We treat the Examiner’s reference in the Final Office Action to cancelled claims 17–19 as inadvertent error.

abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp.*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 79, 78).

The Court acknowledged in *Mayo*, that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. Therefore, the Federal Circuit has instructed that claims are to be considered in their entirety to determine “‘whether their character as a whole is directed to excluded subject matter.’” *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

Here, in rejecting the pending claims under 35 U.S.C. § 101, the Examiner determined that the claims are directed to “determining and mapping a physical location of an asset versus a financial location of

record,” i.e., to “[d]etermining if an asset is in the location that it is supposed to be,” which the Examiner concludes is a fundamental economic practice, and, therefore, an abstract idea (Final Act. 5). The Examiner also determined that the claims do not include limitations that are “significantly more” than the abstract idea because “the claims do not include 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” (*id.* at 4).

*Independent Claims 4 and 20 and Dependent Claims 22–24*

Appellants argue claims 4, 20, and 22–24 together (App. Br. 5–23). We select independent claim 4 as representative. The remaining claims stand or fall with claim 4. *See* 37 C.F.R. §41.37(c)(1)(iv).

Appellants variously argue that the rejection under § 101 cannot be sustained because the Examiner has failed to identify an abstract idea that accurately reflects the claimed invention, and also has failed to expressly address the “additional elements” recited in claim 4, which Appellants maintain amount to “significantly more” than the judicial exception (*see, e.g.,* App. Br. 6). Appellants’ arguments are not persuasive.

Pointing to the Final Office Action, Appellants maintain that the Examiner mischaracterizes the claims as directed to “determining a physical location of an asset” (*id.* at 16). Appellants assert that, to the extent that claim 4 mentions a physical location at all, it is the physical location of either (1) the router or switch to which the asset is connected or (2) the port number of the router or switch through which the asset is connected. And Appellants argue that detecting this physical location is “merely a

preliminary step to achieve the overall goal of Claim 1 [sic], which is to detect and report mismatches between financial locations of record of a device, and a physically-derived financial location” (*id.*).

The difficulty with Appellants’ argument is that the Examiner did not merely find that the claims are directed to “determining a physical location of an asset.” Instead, responding to Appellants’ arguments, the Examiner explained that the claims are directed to “determining and mapping a physical location of an asset versus a financial location of record,” i.e., to “[d]etermining if an asset is in the location that it is supposed to be” (Final Act. 5).

The Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the [S]pecification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (citing *Internet Patents Corp.*, 790 F.3d at 1346). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36.

Here, it is clear from the Specification that the claimed invention is directed to tracking the physical location of business assets, including, in particular, readily portable assets, which can be transported from one location to another with relative ease, often without reporting the change in location. This is done by comparing the asset’s “financial location” of record, i.e., the financial location associated with the physical location where the asset is reportedly present, to its “physically-derived financial location,” i.e., the financial location associated with the physical location where the

asset is actually present, and notifying a user of any mismatches (*see, e.g.*, Spec. ¶¶ 1 (“embodiments of the present invention relate to comparing a financial location derived from a physical location to a financial location associated therewith by a financial system”), 8–11, 12 (noting that a location change may be made, which is not reported to the financial application; as a result, the financial location associated with the physical location of an asset may not correspond with the financial location defined by the financial application), 19–21)). The claims, in our view, may fairly be characterized as directed to tracking the location of an asset by comparing the asset’s financial location to its physically-derived financial location, and reporting any mismatches. As such, we see no legal difficulty with the Examiner’s determination that the claims are directed to “[d]etermining if an asset is in the location that it is supposed to be” (Final Act. 5).

We also cannot agree with Appellants that an asserted concept may only qualify as an abstract idea if it falls within one of the categories set forth in the USPTO’s “July 2015 Update: Subject Matter Eligibility” (App. Br. 18–20).<sup>4</sup> There is no dispute that the Court in *Alice* provided several broad examples of what might constitute an “abstract idea,” including (1) fundamental economic practices; (2) certain methods of organizing human activities; (3) “an idea of itself”; and (4) mathematical relationships or formulae. *Alice Corp.*, 134 S. Ct. at 2350, 2356. And these examples are reflected in the USPTO guidance. But there is no indication in *Alice* that these examples were intended to be exhaustive, as opposed to providing a broad framework within which an analysis of patent-eligibility should

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<sup>4</sup> Available at <https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf>.

appropriately be conducted. Indeed, we are aware of no precedent, nor, for that matter, do Appellants identify any precedent, that holds that only these enumerated categories can qualify as abstract ideas.

Moreover, although there may be factual differences, we agree with the Examiner that claim 4 is analogous to the claims at issue in *SmartGene, Inc. v. Advanced Biological Labs, SA*, 555 F. App'x 950 (Fed. Cir. 2014) (*see* Ans. 8), and like the claims in *SmartGene*, involves no more than the abstract idea of comparing stored data (an asset's financial location) with input data (the asset's physically-derived financial location), i.e., to detect and report mismatches between these two locations — a concept that, as the Examiner observes (Ans. 8), can fairly be considered an “idea of itself,” and, therefore, within the categories set forth in the Office's guidance.

Turning to step two of the *Mayo/Alice* framework, we are not persuaded by Appellants' arguments that the § 101 rejection should be withdrawn because the claims recite “significantly more” than an abstract idea. Quoting limitations (f) though (n) of claim 4, Appellants argue that these are not “mere instructions for implementing the abstract idea on a generic computing device” (App. Br. 9–10) and that these elements are not well-understood, routine or conventional in the field (*id.* at 13–14). But, Appellants do not point to any evidence of record, short of attorney argument, to support that position. We also find no indication in the Specification, nor do Appellants point us to any indication, that the particular operations recited in claim 4 require any specialized computer hardware or other inventive computer components, invoke any assertedly inventive programming, or that the claimed invention is implemented using other than generic computer components to perform the claimed method

steps. In fact, the Specification expressly states that “embodiments of the invention are not limited to any specific combination of hardware circuitry and software” (Spec. ¶ 62; *see also id.* ¶¶ 63–65).

Appellants further argue that these “additional limitations” limit the claimed invention to a “specific critical practical application” (App. Br. 10–13). Yet, limiting the use of the abstract idea to a particular technological environment does not make the claims any less abstract. *See Alice Corp.*, 134 S. Ct. at 2358. Nor is the recitation of a practical application for an abstract idea sufficient to transform the abstract idea into a patent-eligible invention. *Cf. CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) (“The Court [in *Parker v. Flook*, 437 U.S. 584 (1978)] rejected the notion that the recitation of a practical application for the calculation could alone make the invention patentable.”).

We also are not persuaded by Appellants’ argument that claim 4 is patent-eligible because the claim recites limitations that “improve upon the functioning of the computing system itself” (App. Br. 15). Appellants argue that “[t]he approach of Claim 4 increases the efficiency of determining mismatches between the ‘physically-derived financial location’ and the ‘financial location of record’ for one or more devices” such that the computing system experiences a decrease in resource utilization (*id.*). But, even accepting Appellants’ argument, there is a fundamental difference between computer functionality improvements, on the one hand, and uses of existing computers as tools to perform a particular task, on the other. Indeed, the Federal Circuit applied this distinction in *Enfish*, in rejecting a § 101 challenge at the step one stage in the *Alice* analysis because the claims at issue focused on a specific type of data structure, i.e., a self-referential

table for a computer database, designed to improve the way a computer carries out its basic functions of storing and retrieving data, and not merely on asserted advances in uses to which existing computer capabilities could be put. *Enfish*, 822 F.3d at 1335–36. We are not persuaded that Appellants’ alleged improvement represents an improvement in computer capabilities as opposed to an improvement in tracking business assets for which a computer is used as a tool in its ordinary capacity.

Unlike the claims found patent-eligible in previous cases, the focus of claim 4 is not on an improvement to any particular computer technology. *See, e.g., McRO*, 837 F.3d at 1314–15 (finding the claims patent-eligible because they “focused on a specific asserted improvement in computer animation”). Instead, claim 4 addresses the *business* problem of tracking the locations of business assets (*see, e.g., Spec.* ¶¶ 4, 8–12).

#### *Dependent Claims 6, 7, and 8*

For much the same reasons set forth above with respect to claim 4, we are not persuaded that the additional limitations recited in dependent claims 6, 7, and 8 add significantly more to the abstract idea so as to render the claims patent-eligible. Claims 6, 7, and 8 depend, directly or indirectly, from claim 4, and specify the actions that are taken upon detecting a mismatch, i.e., “providing a mechanism with which the mismatch may be reconciled” (claim 6); “reconciling the mismatch . . . [by] changing the financial location of record to reflect the physically-derived financial location” (claim 7); and “generating an exception and displaying a report relating to the exception (claim 8).

Appellants argue that the “additional elements” of the dependent claims qualify as “significantly more” because they are not generic computer

functions and improve the functioning of the computer itself (App. Br. 23–25). But, as with claim 4, there is no indication of record that the particular operations recited in these claims require any specialized computer hardware or other inventive computer components, invoke any assertedly inventive programming, or that the claimed invention is implemented using other than generic computer components to perform the claimed method steps. We also are not persuaded that these claims improve the functioning of the computer itself as opposed to merely providing an improved method for tracking business assets for which a computer is used as a tool.

*Appellants’ Additional Arguments*

Advancing further arguments, Appellants acknowledge that novelty does not automatically establish patent eligibility. But, Appellants assert that “it is not correct that satisfying the non-obviousness requirement of [35 U.S.C. § 103] is unrelated to eligibility” (App. Br. 25). Appellants, thus, ostensibly maintain that the pending claims are automatically patent-eligible because the Board previously reversed the Examiner’s obviousness rejections (*id.* at 25–26). We disagree.

The Court, in *Mayo*, expressly declined “the Government’s invitation to substitute §§ 102, 103, and 112 inquiries for the better established inquiry under § 101.” *Mayo*, 566 U.S. at 91. And, in *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307 (2016), the Federal Circuit made clear that the jury’s finding of non-obviousness did not “resolve the question of whether the claims embody an inventive concept at the second step of *Mayo/Alice*.” *Id.* at 1315.

Finally, we are not persuaded by Appellants’ argument that the Examiner’s failure to apply a streamlined analysis is contrary to USPTO

guidelines. Nor are we persuaded that the pending claims are patent-eligible because the claims do not seek to preempt the judicial exception (App. 28–29).

As set forth in the Office’s “2014 Interim Guidance on Patent Subject Matter Eligibility,” 79 Fed. Reg. 74618 (Dec. 16, 2014), the streamlined analysis is an optional tool that an examiner may use at his or her discretion. The Guidance, thus, instructs that “[f]or purposes of efficiency in examination, a streamlined eligibility analysis *can be* used.” *See* Interim Guidance, 79 Fed. Reg. at 74625 (emphasis added). The Guidance also instructs 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.” *Id.* (emphasis added). The Examiner’s decision here to perform a full § 101 analysis was, in our view, a proper exercise of the Examiner’s discretion.

Regarding preemption, there is no dispute that the Supreme Court has described “the concern that drives [the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption.” *Alice Corp.*, 134 S. Ct. at 2354. But characterizing preemption as a driving concern for patent eligibility is not the same as characterizing preemption as the sole test for patent eligibility. “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice Corp.*, 134 S. Ct. at 2354).

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“[P]reemption may signal patent ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

We are not persuaded, on the present record, that the Examiner erred in rejecting claims 4, 6–8, 20, and 22–24 under 35 U.S.C. § 101. Therefore, we sustain the Examiner’s rejection.

#### DECISION

The Examiner’s rejection of claims 4, 6–8, 20, and 22–24 under 35 U.S.C. § 101 is affirmed.

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

AFFIRMED