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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL METCALF

Appeal 2019-001711
Application 13/355,347
Technology Center 3600

Before CAROLYN D. THOMAS, HUNG H. BUI, and
JOHN F. HORVATH, *Administrative Patent Judges*.

THOMAS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 3–10, 12–14, 16–24, 26, 27, 29, and 31–35. Claims 2, 11, 15, 25, 28, and 30 are canceled. Claims Appendix. We have jurisdiction over the appeal 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. Appellant identifies the real party in interest as Oath Inc. Appeal Br. 3.

The present invention relates generally to providing pop-applications, associated with advertisements, to users based on locations associated with the applications. *See Spec.* ¶ 3.

Independent claim 1, reproduced below, is representative of the appealed claims:

1. A method, comprising:
 - predicting, by one or more servers, future locations of a plurality of users such that a predicted number of the plurality of users for a location is determined, wherein predicting future locations of a plurality of users is performed based, at least in part, on calendar entries in electronic calendars of at least a portion of the plurality of users;
 - providing, by the one or more servers via a bidding platform, information indicating the predicted number of users for the location;
 - auctioning the location by the one or more servers based, at least in part, on the predicted number of users for the location such that a set of one or more applications is mapped to the location based upon a plurality of bids, each of the plurality of bids pertaining to a different one of a plurality of applications;
 - ascertaining by the one or more servers a set of one or more users that are present at the location based, at least in part, upon signals received from mobile devices of the set of one or more users;
 - and
 - providing by the one or more servers a notification or image representative of at least one of the set of one or more applications for presentation in a pop-up window via the mobile devices of the set of one or more users.

Appellant appeals the following rejection:

Claims 1, 3–10, 12–14, 16–24, 26, 27, 29, and 31–35 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to patent-ineligible subject matter. Final Act. 3–4.

We review the appealed rejection for error based upon the issues

identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential).

ANALYSIS

Rejection under § 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. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” that are not patentable because these implicit exceptions (1) are “the basic tools of scientific and technological work” and (2) “are part of the storehouse of knowledge of all men . . . free to all men and reserved exclusively to none.” *Gottshalk v. Benson*, 409 U.S. 63, 67 (1972); *e.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with the framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”). For example, concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*,

Appeal 2019-001711
Application 13/355,347

561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)).

The USPTO published revised guidance on the application of 35 U.S.C. § 101. USPTO’s 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Revised Guidance”). *Updated by USPTO, October 2019 Update: Subject Matter Eligibility* (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf) (jointly referred to as “Revised Guidance”); *see also* October 2019 Patent Eligibility Guidance Update, 84 Fed. Reg. 55942 (Oct. 18, 2019) (notifying the public of the availability of the October update).

Under the Revised Guidance “Step 2A,” the office first looks to whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and

(2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)-(c), (e)-(h)). 84 Fed. Reg. at 51–52, 55.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, does the Office then (pursuant to the Revised Guidance “Step 2B”) look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. 84 Fed. Reg. at 56.

Step 2A, Prong 1 (Does the Claim Recite a Judicial Exception?)

With respect to representative independent method claim 1, the Examiner determines that the claims are directed to “providing application advertisements based on predicted locations for a plurality of users” (Final Act. 3), which we conclude are at least mental processes, which is a type of abstract idea. We also determine that the claims are directed to geo-targeting, i.e., delivering content to users based upon their locations, which we conclude are certain methods of organizing human activity, i.e., commercial interactions regarding geo-targeting for potentially sending targeted advertisements. For at least the following reasons, we are persuaded that representative claim 1 recites plural abstract ideas.

The Specification discloses:

The disclosed embodiments enable pop-applications to be provided to users. Through pop-up applications, applications or advertisements associated therewith may be provided to users. This may be accomplished based, at least in part, upon locations associated with the applications.

In accordance with one embodiment, a location may be identified, where the location is associated with a set of one or more applications. A set of one or more users that are present at the location may be ascertained. The set of one or more applications or one or more advertisements may be provided to the set of one or more users, where each of the advertisements pertains to a corresponding one of the set of one or more applications.

Spec. ¶¶ 3–4.

A claim recites a mental process when the claim encompasses acts people can perform using their minds or pen and paper. *See, e.g., CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372-73 (Fed. Cir. 2011) (determining that a claim whose “steps can be performed in the human mind, or by a human using a pen and paper” is directed to an unpatentable mental process). This is true even if the claim recites that a generic computer component performs the acts. *See, e.g., Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (“Courts have examined claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person's mind.”); *see also* 2019 Eligibility Guidance 84 Fed. Reg. at 52 n.14 (“If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind.”).

Limitations in claim 1, under the broadest reasonable interpretation, encompass acts people can perform using their minds or pen and paper because people can perform the “predicting . . . future locations” step by simply looking at the recited content, i.e., entries in a calendar for various individuals, and observing future appointments at a particular location. People can also perform the “providing . . . information/notification” steps by merely passing a piece of paper with the content to one another. Additionally, people can perform the “auctioning . . . the location” and “ascertaining . . . users that are present” steps by respectively using pen and paper to map applications to locations and simply making observations as to which users are present at the location.

Additionally, the aforementioned limitations, under their broadest reasonable interpretation, recite commercial interactions akin to geo-targeting because the limitations all recite operations that would ordinarily take place when selecting, creating, and transmitting content, e.g., advertisements. *See* Spec. ¶ 20. Although representative claim 1 does not explicitly recite “advertisements,” it is clear from Appellant’s disclosure that ad targeting is the intended purpose. *See* Abstract.

Appellant merely contends that “the Examiner has described the claims at a high level of abstraction that does not consider the specific language of the claims.” Appeal Br. 16.

It is plainly evident that the Examiner considered the limitations in the claim and the Examiner’s analysis is indeed tethered to actual claim language. We find the Examiner properly and reasonably found that claim 1 recites an abstract idea. The Examiner condensed it to “providing application advertisements based on predicted locations for a plurality of users” (Final Act. 3), but this is simply a higher level of abstraction. *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240–41 (Fed. Cir. 2016) (“An abstract idea can generally be described at different levels of abstraction. As the Board has done, the claimed abstract idea could be described as generating menus on a computer, or generating a second menu from a first menu and sending the second menu to another location. It could be described in other ways, including, as indicated in the specification, taking orders from restaurant customers on a computer.”)

Whichever way the concept is described, we do not see that Appellant has adequately shown that claim 1 does not recite an abstract idea. The fact that claim 1 includes more words than the phrase the Examiner uses as an

articulation of the abstract idea to which he/she found the claim is directed does not provide sufficient reason to persuasively argue that claim 1 is not directed to an abstract idea. Further, the identified abstract idea need not encompass every claim limitation. Otherwise, there would be no need for step two of the *Alice* inquiry. *Alice*, 134 S. Ct. at 2355.

Therefore, for at least the aforementioned reasons, we agree with the Examiner that claim 1 recites abstract ideas, which we conclude are mental processes and certain methods of organizing human activity (e.g., commercial interactions).

Step 2A—Prong 2 (integration into Practical Application)²

Under the Revised Guidance, we now must determine if additional elements in the claims integrate the judicial exception into a **practical application** (*see* MPEP § 2106.05(a)–(c), (e)–(h)). Here, we discern no additional element (or combination of elements) recited in Appellant’s claims that integrate(s) the judicial exception into a practical application. *See* 84 Fed. Reg. at 54–55.

For example, Appellant’s additional elements (i.e., “one or more servers” and “mobile devices” recited in claims 1, 8, 14, and 18) do not (1) improve the functioning of a computer or other technology, (2) are not applied with any particular machine (except for generic computer components), (3) do not effect a transformation of a particular article to a different state, and (4) are not applied in any meaningful way beyond

² We acknowledge that some of the considerations at Step 2A, Prong 2, properly may be evaluated under Step 2 of *Alice* (Step 2B of the Office revised guidance). For purposes of maintaining consistent treatment within the Office, we evaluate them under Step 1 of *Alice* (Step 2A of the Office revised guidance). *See* Revised Guidance, 84 Fed. Reg. at 55 n.25, 27–32.

generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception. *See* MPEP §§ 2106.05(a)–(c), (e)–(h). Appellant argues (1) “the claims at issue here recite technical features that use information and data structures such as electronic calendars to predict future locations of users and enable applications to be mapped to locations” and, as such, (2) provide “the claimed solution [] rooted in Internet technology.” Appeal Br. 16–17. We do not agree. Although the claimed invention additionally recites one or more servers, electronic calendars, a bidding platform, and mobile devices utilizing pop-up windows, we disagree with Appellant that “the claimed solution is rooted in Internet technology.” *See* Appeal Br. 17.

At the outset, we note the recited “providing . . . via a bidding platform” and “providing by the one or more servers a notification . . . for presentation in a pop-up window” steps of claim 1 are insignificant extra-solution activity. Additionally, the “tracking” step, i.e., “ascertaining . . . upon signals received from mobile devices,” is also an insignificant extra-solution activity. Furthermore, Appellant fails to identify how the tracking process is improved. Instead, the claimed invention merely limits the tracking information to signals from mobile devices of the users. While this limited scope may benefit the vendor in providing more targeted information, the claimed invention does not describe any technical improvement in collecting or analyzing the data or in the prior art tracking process.

These pre- and post-solution steps—even when performed over a computer network via communications between client and server

computers—are insufficient to integrate the judicially excepted steps into a practical application. *See Alice*, 573 U.S. at 224 (“use of a computer to create electronic records, track multiple transactions, and issue simultaneous instructions” is not an inventive concept). Furthermore, courts have found data gathering steps to be insignificant extra-solution activity. *See, e.g., In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008) (en banc), *aff’d sub nom Bilski v. Kappos*, 561 U.S. 593 (2010). The Supreme Court guides that the “prohibition against patenting abstract ideas ‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or [by] adding ‘insignificant postsolution activity.’” *Bilski v. Kappos*, 561 U.S. at 610–11 (quoting *Diehr*, 450 U.S. at 191-92).

Appellant also contends that (1) “the claims at issue are directed to a particular manner of generating mappings between applications and locations so that pop-up applications may be provided via mobile devices,” and, as such, (2) like the claims in *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018), “the claims at issue are directed to specific implementations” of “a pop-up window via the mobile devices” recited in claims 1, 8, and 18. Appeal Br. 17–19.

We do not agree. As recognized by the Examiner, “the ‘pop-up’ notification is nothing more than an existing technique for displaying information that is employed to present an advertisement for the mapped mobile device application indication. Ans. 5. As such, *Core Wireless* is not applicable because the claims in *Core Wireless* are directed to an improved user interface for computing devices, in which “an application summary that can be reached directly from the menu,” specify a particular manner by which the summary window must be accessed and a specific manner of

displaying a limited set of information to the user, resulting in “an improved user interface for electronic devices,” whereas Appellant’s claims only use a generic pop-up window to notify information.

Although Appellant also contends that “the claimed invention is a technological improvement to mobile technology” (*see* Appeal Br. 23), Appellant does not direct our attention to anything in the Specification to indicate that the invention provides an improvement in the technical functionality of mobile technology. In contrast, the claims at issue in *Enfish* were directed to 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. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016). There, in rejecting a § 101 challenge, the court held that “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.” *Id.* at 1336.

The present case is different from *Enfish* because the focus of the claims here is not on an improvement in mobile device technology or upon an innovative way to use mobile devices, but is focused on an abstract idea that uses generic and routine mobile devices as tools; that abstract idea being collecting locations associated with calendar entries and processing location data relating to mobile devices, and mapping applications to said locations. That is, here the arguably innovative technique of the appealed claims is inextricably a part of the abstract idea of manipulating data itself to decide which targeted advertisements to provide. Moreover, nothing in the claims, understood in light of the Specification, requires anything other than off-the-

shelf electronic calendars and conventional mobile devices used for collecting and processing/analyzing various information/data. Therefore, we agree with the Examiner that, unlike *Enfish*, the claims are directed not to improvement in mobile device capabilities, but to the results of applying an abstract idea. *See* Ans. 4.

Additionally, in *McRO*, the Federal Circuit concluded that the claim, when considered as a whole, was directed to a “technological improvement over the existing, manual 3-D animation techniques” through the “use of limited rules specifically designed to achieve an improved technological result in conventional industry practice.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016). Specifically, the Federal Circuit found that the claimed rules allow computers to produce accurate and realistic lip synchronization and facial expressions in animated characters that previously could only be produced by human animators; and the rules are limiting because they define morph weight sets as a function of phoneme sub-sequences. *Id.* at 1313 (citations omitted).

In contrast, here, Appellant has not identified any analogous improvement attributable to the claimed invention. Although providing information based at least in part on a determined location of the user may improve a business process, it does not achieve an improved technological result. We see no parallel between the limiting rules described in *McRO* and the results-based rules recited in Appellant’s claims.

For at least the reason noted *supra*, we determine that claim 1 (1) recites a judicial exception and (2) does not integrate that exception into a practical application. Thus, representative claim 1 is directed to the aforementioned abstract ideas.

Alice/Mayo—Step 2 (Inventive Concept)
Step 2B identified in the Revised Guidance

Turning to the second step of the *Alice* inquiry, we now look to whether claim 1 contains any “inventive concept” or adds anything “significantly more” to transform the abstract concept into a patent-eligible application. *Alice*, 573 U.S. at 216. As recognized by the Revised Guidance, an “inventive concept” under *Alice* step 2 can be evaluated based on whether an additional element or combination of elements:

- (1) adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present; or
- (2) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.

See Revised Guidance, 84 Fed. Reg. at 56; *see* MPEP § 2106.05(d).

Appellant contends “the Examiner has withdrawn the rejection of the claims over the prior art . . . Therefore, Appellant submits that the claims include an inventive concept that is neither routine nor conventional.”
Appeal Br. 23.

We find no element or combination of elements recited in Appellant’s claim 1 that contains any “inventive concept” or adds anything “significantly more” to transform the abstract concept into a patent-eligible application. Appellant has not adequately explained how claim 1 is performed such that it is not a routine and conventional function of a generic computer. For example, Appellant’s Specification explicitly indicates that “general purpose microprocessors” may be utilized. *See* Spec. ¶ 114. *See Berkheimer v. HP*

Inc., 881 F.3d 1360, 1369 (Fed. Cir. 2018) (“Whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.”).

Furthermore, even if the Examiner has withdrawn any prior art rejections, a finding of novelty or non-obviousness does not require the conclusion that the claimed subject matter is patent-eligible. Although the second step in the *Mayo/Alice* framework is termed a search for an “inventive concept,” the analysis is not an evaluation of novelty or nonobviousness, but, rather, is a search for “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 573 U.S. at 216. “Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.” *Ass’n. for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013). A novel and non-obvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 90. *See also Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981) (“The ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.”).

Because Appellant’s independent claim 1 is directed to a patent-ineligible abstract concept, does not include additional elements that integrate the judicial exception into a practical application, and does not add a specific limitation beyond the judicial exception that is not “well-understood, routine, and conventional,” we sustain the Examiner’s rejection of claims 1, 3–10, 12–14, 16–24, 26, 27, 29, and 31–35 under 35 U.S.C.

Appeal 2019-001711
Application 13/355,347

§ 101 as being directed to non-statutory subject matter in light of *Alice*, its’ progeny, and the Revised Guidance.

CONCLUSION

The Examiner’s rejection of claims 1, 3–10, 12–14, 16–24, 26, 27, 29, and 31–35 under 35 U.S.C. § 101 is affirmed.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3–10, 12–14, 16–24, 26, 27, 29, 31–35	101	Eligibility	1, 3–10, 12–14, 16–24, 26, 27, 29, 31–35	

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

AFFIRMED