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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte STEVEN DENNIS FLINN and
NAOMI FELINA MONEYPENNY

Appeal 2017-011693
Application 13/270,049¹
Technology Center 3600

Before JOSEPH A. FISCHETTI, BRUCE T. WIEDER, and
KENNETH G. SCHOPFER, *Administrative Patent Judges*.

WIEDER, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 9–17. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ According to Appellants, the real party in interest is ManyWorlds, Inc. (Appeal Br. 3.)

CLAIMED SUBJECT MATTER

Appellants’ “invention relates to extending the business process paradigm so as to make processes more explicitly adaptive over time.”
(Spec. 1, ll. 8–9.)

Claim 9 is the sole independent claim on appeal. It recites:

9. A computer-implemented system, comprising:

a recommendation-generating function executed on a processor-based device that generates a first plurality of recommended objects, wherein the generation of the first plurality of recommended objects is in accordance with a first inference of a preference that is based, at least in part, on a first plurality of usage behaviors, and wherein the first plurality of recommended objects are delivered to a first user arranged in a temporal sequence;

a computer-implemented usage function that accesses a second plurality of usage behaviors associated with the first user interacting with the first plurality of recommended objects; and

the recommendation-generating function, wherein the recommendation-generating function generates a second plurality of recommended objects, wherein the generation of the second plurality of recommended objects is in accordance with fulfillment of a subscription to a second user, wherein the second user is represented as an object, and wherein the generation of the second plurality of recommended objects is further in accordance with a second inference of a preference that is based, at least in part, on the second plurality of usage behaviors, and wherein the second plurality of recommended objects are delivered to a user arranged in a temporal sequence.

REJECTION

Claims 9–17 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

ANALYSIS

The § 101 rejection of claim 9

“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.” 35 U.S.C. § 101. Section 101, however, “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. 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)).

Alice applies a two-step framework, earlier set out 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*, 573 U.S. at 217.

Under the two-step framework, it must first be determined if “the claims at issue are directed to a patent-ineligible concept.” *Id.* If the claims are determined to be directed to a patent-ineligible concept, e.g., an abstract idea, then the second step of the framework is applied to determine if “the elements of the claim . . . contain[] an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Id.* at 221 (citing *Mayo*, 566 U.S. at 72–73, 79).

With regard to step one of the *Alice* framework, we apply a “directed to” two prong test to: 1) evaluate whether the claim recites a judicial exception, and 2) if the claim recites a judicial exception, evaluate whether the claim “appl[ies], rel[ies] on, or use[s] 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.” See *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 54 (Jan. 7, 2019) (hereinafter “2019 Guidance”).

Here, the Examiner determines that

claim 9 is directed to generating recommended objects in accordance with inferences of preference based on usage behaviors, objects delivered arranged in temporal sequence, access usage behaviors, and generating recommended objects in accordance with fulfillment of subscription to a user, which is a practice similar to those found by the courts to be abstract.

(Final Action 4.) The Examiner further determines that “making inferences from usage behaviors is a basic building block in the field of marketing” (Answer 3), that “[p]roviding recommendations in a sequence is an abstract idea” (*id.* at 5), and that “[a] user can generate recommendations based on inferring preferences from observing usage behaviors with only pen to paper actions and/or mental calculation” (*id.*).

Appellants disagree and argue that “[t]he Examiner provides no facts to support that the posited abstract idea represents a long prevalent building block of human ingenuity.” (Appeal Br. 10.) Appellants further argue “that claim 9 not only represents an improvement to a technological process, but even more specifically *does* represent an improvement to computer technology itself.” (*Id.* at 11.)

Under step one of the *Alice* framework, we “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)).

The “directed to” inquiry . . . cannot simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions *involves* a law of nature and/or natural phenomenon Rather, the “directed to” inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether “their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016). In other words, the first step of the *Alice* framework “asks whether the focus of the claims is on the specific asserted improvement in [the relevant technology] or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Id.* at 1335–36; *see also* 2019 Guidance at 54–55.

The Specification provides evidence as to what the claimed invention is directed. In this case, the Specification discloses that the “invention relates to extending the business process paradigm so as to make processes more explicitly adaptive over time.” (Spec. 1, ll. 8–9.) Claim 9 provides further evidence. Claim 9 recites a “system, comprising: a recommendation-generating function . . . that generates a first plurality of recommended objects . . . based, at least in part, on a first plurality of usage behaviors, and wherein the first plurality of recommended objects are delivered to a first user,” “a . . . usage function that accesses a second plurality of usage behaviors associated with the first user interacting with the first plurality of recommended objects,” “and . . . wherein the recommendation-generating function generates a second plurality of recommended objects . . . in accordance with a second inference of a preference that is based, at least in part, on the second plurality of usage

behaviors, and wherein the second plurality of recommended objects are delivered to a user.” This is similar to “customizing information based on . . . information known about the user,” which the Federal Circuit has determined to be an abstract idea. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed. Cir. 2015). More specifically, claim 9 is directed to marketing activities and behaviors, i.e., methods of organizing human activity. (*See* 2019 Guidance at 52.) This is accomplished by obtaining information, analyzing information, presenting information, and obtaining, analyzing, and presenting additional information. Claim 9 is also directed to observation, evaluation, and judgment, i.e., mental processes. (*See id.*)

Although we and the Examiner describe, at different levels of abstraction, to what the claims are directed, it is recognized that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). That need not and, in this case does not, “impact the patentability analysis.” *Id.* at 1241.

We do not find persuasive Appellants’ argument “that claim 9 not only represents an improvement to a technological process, but even more specifically *does* represent an improvement to computer technology itself.” (Appeal Br. 11.) Specifically, Appellants argue that the “claimed invention recites a very specific combined software and hardware means to improve computer technology by making computer technology more automatically adaptive to users.” (*Id.*) But claim 9 simply recites a generic “computer-implemented system,” a generic “processor-based device,” and a generic “computer-implemented usage function.” (*See, e.g.,* Spec. 103, ll. 3–28.)

The claim limitations do not recite implementation details. Instead, they recite functional results to be achieved. In other words, the claims do not recite “a particular way of programming or designing the software . . . , but instead merely claim the resulting systems.” *Apple, Inc.*, 842 F.3d at 1241. “Indeed, the claim language here provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it. Our law demands more.” *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017).

Nonetheless, Appellants seek to analogize claim 9 to the claims in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016). (Appeal Br. 10–12.) Specifically, Appellants argue that

the PTAB ruled in the earlier appeal of this very same claim that the claim was not obvious in view of the cited art, because, *inter alia*, of the recursive nature of the claimed invention embodied by claim 9. Appellants submit that by the same reasoning as applied in *McRO*, claim 9 must be considered as being directed to an improvement of a technological process and is therefore necessarily not directed to an abstract idea.

(Appeal Br. 11.) In other words, Appellants’ argument is that because the steps are novel, the claim recites patent eligible subject matter. We disagree. “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.” *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981).

Moreover, in *McRO*, the court determined that

the claimed improvement here is allowing computers to produce “accurate and realistic lip synchronization and facial expressions in animated characters” that previously could only be produced by human animators. As the district court correctly

recognized, this computer automation is realized by improving the prior art through “the use of rules, rather than artists, to set the morph weights and transitions between phonemes.” The rules are limiting in that they define morph weight sets as a function of the timing of phoneme sub-sequences.

McRO, 837 F.3d at 1313 (citations omitted). Unlike *McRO*, here, the asserted improvements are to marketing activities and behaviors regarding inferred preferences and recommendations, i.e., simply improvements to the abstract idea. Also unlike *McRO*, here, the claims merely recite functional results to be achieved. Thus, “these claims in substance [are] directed to nothing more than the performance of an abstract business practice . . . using a conventional computer. Such claims are not patent-eligible.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014).

Appellants seek to analogize claim 9 to the claims in *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327 (2016). (Appeal Br. 11.) But, unlike claim 9, the claims in *Enfish* were “specifically directed to a *self-referential* table for a computer database.” *Enfish*, 822 F.3d at 1337. That is, “the plain focus of the claims [was] 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. Here, the asserted improvement, as discussed above, is to marketing activities and behaviors, not computer functionality. That a computer is used “to perform routine tasks [i.e., obtaining information, analyzing information, presenting information, and obtaining, analyzing, and presenting additional information] more quickly or more accurately is insufficient to render a claim patent eligible.” *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015).

In view of the above, we agree with the Examiner that claim 9 is directed to an abstract idea.

Step two of the *Alice* framework has been described “as a search for an ‘inventive concept’”—*i.e.*, 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 217–18 (brackets in original) (quoting *Mayo*, 566 U.S. at 72–73).

Appellants argue that

the Examiner makes the conclusory statement that, “the claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception,” (Final Office Action page 5). It is submitted that the Examiner fails to explicitly address each claim element and provide supporting facts in reaching this conclusion, as well as failing to explicitly consider the full set of elements as a combination

(Appeal Br. 13.)

“It has been clear since *Alice* that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than the ineligible concept.” *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). In other words, “[i]f a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.” *Id.* at 1290–91.

Claim 9 simply applies the abstract idea using a generic “computer-implemented system,” a generic “processor-based device,” and a generic “computer-implemented usage function.” “[T]he relevant question is whether the claims here do more than simply instruct the practitioner to

implement the abstract idea . . . on a generic computer.” *Alice*, 573 U.S. at 225. They do not. Claim 9 relates to obtaining information, analyzing information, presenting information, and obtaining, analyzing, and presenting additional information.

Taking the claim elements separately, the function performed by the generic computer components at each step is purely conventional. Obtaining, analyzing, and presenting information are basic computer functions, i.e., they are well-understood, routine, and conventional functions previously known to the industry. *See Elec. Power Grp.*, 830 F.3d at 1356 (The claims “do not include any requirement for performing the claimed functions of gathering, analyzing, and displaying in real time by use of anything but entirely conventional, generic technology. The claims therefore do not state an arguably inventive concept”); *see also In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming.”).

Considered as an ordered combination, the generic computer components of Appellants’ system add nothing that is not already present when the elements are considered separately. For example, claim 9 does not, as discussed above, purport to improve the functioning of the components themselves. Nor does it effect an improvement in any other technology or technical field. Instead, claim 9 amounts to nothing significantly more than an instruction to apply the abstract idea using generic computer components. That is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 225–26.

In view of the above, we are not persuaded that the Examiner erred in rejecting claim 9 under § 101.

The § 101 rejection of claims 10 and 11

Claim 10 depends from claim 9 and additionally recites: “a computer-implemented function that accesses a monitored physiological response.”

Claim 11 depends from claim 10 and additionally recites: “the computer-implemented function that monitors the physiological response, wherein the physiological response is a gesture.”

Appellants argue that the additional element of claim 10 “does not have an analog in controlling case law in which claims were found to be directed to non-statutory subject matter, monitoring physiological responses in the context of recommender systems would not be considered routine or conventional at the time of the invention.” (Appeal Br. 14.) Appellants make similar arguments regarding claim 11. (*Id.* at 15–16.)

The written description portion of the Specification uses the term “gesture” in a single location, but does not provide a definition for the term. (*See* Spec. 21, ll. 11–12.) Applying a broadest reasonable interpretation to the claim term, we determine that the term “gesture” includes “a hand movement that you use to control something such as a smartphone or tablet.” (*See* https://www.macmillandictionary.com/us/dictionary/american/gesture_1, def. 1.b., last visited Feb. 27, 2019.)

In view of the above, we determine that it was routine and conventional to monitor a gesture, i.e., a hand movement used to control something, e.g., a mouse, in a computer-implemented system. Therefore, we

are not persuaded that the Examiner erred in rejecting claims 10 and 11 under § 101.

The § 101 rejection of claims 12–17

Claims 12–17 depend either directly or indirectly from claim 9. Claims 12–17 simply provide further details of the abstract idea. For example, claim 12 depends directly from claim 9 and additionally recites: “the recommendation-generating function that generates the second plurality of recommended objects, wherein the second plurality of recommended objects is selected in accordance with at least one direct feedback behavior associated with at least one object of the first plurality of recommended objects.”

Appellants do not persuasively argue *why* such further detail would result in the claims no longer being directed to marketing activities and behaviors, i.e., methods of organizing human activity, or mental processes. Nor do Appellants argue why such further detail would result in the function performed by the generic computer components at each step no longer being purely conventional, i.e., obtaining information, analyzing information, presenting information, and obtaining, analyzing, and presenting additional information. (*See* Appeal Br. 16–23.)

Moreover, as discussed above, “a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than the ineligible concept.” *BSG Tech LLC*, 899 F.3d at 1290.

In view of the above, we are not persuaded that the Examiner erred in rejecting claims 12–17 under § 101.

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DECISION

The Examiner's rejection of claims 9–17 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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED