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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DANIEL H. GREENE, KURT E. PARTRIDGE, and
JAMES M.A. BEGOLE

Appeal 2018-002442¹
Application 12/062,785²
Technology Center 3600

Before MICHAEL C. ASTORINO, PHILIP J. HOFFMANN, and
TARA L. HUTCHINGS, *Administrative Patent Judges*.

HUTCHINGS, *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 1, 2, 4–10, 12–18, and 20–26. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Our decision references Appellants’ Appeal Brief (“App. Br.,” filed Sept. 21, 2017) and Reply Brief (“Reply Br.,” filed Jan. 4, 2018), and the Examiner’s Answer (“Ans.,” mailed Nov. 7, 2017) and Final Office Action (“Final Act.,” mailed Apr. 21, 2017).

² Appellants identify Palo Alto Research Center Incorporated as the real party in interest. App. Br. 4.

CLAIMED INVENTION

Appellants' claimed invention "generally relates to advertising system" and, more specifically, "to [an] incentive mechanism for developing activity-based triggers of advertisement presentation." Spec. ¶ 3.

Claims 1, 9, and 17 are the independent claims on appeal. Claim 1, reproduced below with bracketed notations added, is illustrative of the claimed subject matter:

1. A computer-implemented method for facilitating an activity-based advertisement system, the method comprising:

[(a)] receiving, by a server computer of an advertising service provider from an advertiser, a trigger for an advertising opportunity associated with a high-level activity, wherein the trigger is authored by the advertiser and includes a condition indicating multiple primitive features that characterize the high-level activity;

[(b)] receiving a bid for the trigger, from at least the advertiser from which the trigger was received;

[(c)] receiving, by the server computer from a mobile computing device of a customer, contextual information that includes at least the customer's location trace measured by a global positioning service (GPS) sensor of the mobile computing device;

[(d)] identifying, by the server computer based on the contextual information, a set of features that characterize the customer's activity;

[(e)] in response to determining that the identified features of the customer's contextual information satisfy the trigger's primitive features, identifying an advertising opportunity that corresponds to the trigger's high-level activity;

[(f)] in response to the advertiser's bid for the trigger being the winning bid, obtaining an advertisement for the advertising opportunity from the advertiser's bid;

[(g)] presenting the advertisement to the customer on a display of the customer's mobile computing device, during an

opportunity period associated with the identified advertising opportunity; and

[(h)] in response to a successful advertisement presentation to the customer on the display of the customer's mobile computing device, providing a reward to the advertiser.

REJECTION

Claims 1, 2, 4–10, 12–18, and 20–26 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

ANALYSIS

Appellants argue the pending claims as a group. App. Br. 19–28. We select independent claim 1 as representative. The remaining claims stand or fall with claim 1. *See* 37 C.F.R. §41.37(c)(1)(iv).

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 abstract ideas” are not patentable. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (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.*, 573 U.S. at 217. 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 “a method for facilitating activity-based advertising,” which the Examiner concluded is a fundamental economic practice and, thus, an abstract idea. *See* Final Act. 4 (“it is a routine, conventional use of a computer to transact business”). The Examiner also determined that the claims recite steps that can be performed mentally by a human, i.e., a mental process and, thus, an abstract idea. *See id.* The Examiner further determined that the claims do not include additional elements that are sufficient to amount to significantly more than the abstract idea itself. *Id.* at 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.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *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, the Specification is entitled “INCENTIVE MECHANISM FOR DEVELOPING ACTIVITY-BASED TRIGGERS OF ADVERTISEMENT PRESENTATION,” and discloses that the invention generally relates to advertising systems. Spec. ¶ 3. The Background section of the Specification describes that “ubiquitous Internet connectivity coupled with wide deployment of wireless devices is drastically changing the advertising industry[,]” leading to “Internet advertising [becoming] the fastest-growing form of advertisement[.]” *Id.* ¶ 4. Internet advertising “surpasses traditional advertising in its ability to better target consumer interest.” *Id.* ¶ 5. However, unlike traditional advertisement that can be presented during particular human activities (e.g., radio advertisements, signs, printed advertisements), Internet advertisement “still cannot be closely tailored to human activities.” *Id.* The Specification seeks to address this problem by “[d]elivering activity-based advertisements to a customer’s mobile device.” *Id.* ¶ 6. The invention uses “an activity-based trigger mechanism so that the system can identify valuable advertising opportunities and present advertisements effectively.” *Id.* In one example, a trigger author defines that a customer “needs lunch” (activity) based on the time of day and the customer’s location. *Id.* ¶ 36. Presumably, in this scenario, the invention would present advertisements related to lunch at a nearby location. Presenting targeted advertisements related to lunch based on the time of day

and location of the customer is analogous to traditional forms of advertising, such as free samples of food offered by a vendor at a food court in the mall during lunch hours. The samples serve to promote the food offered by the vendor when the customer is most susceptible to buy food, e.g., at a meal time.

Considered in light of the Specification, the purported advance over the prior art is, thus, an improved technique for determining advertisements to present to a customer. In that context, claim 1 is directed to (1) “receiving . . . from an advertiser, a trigger for an advertising opportunity associated with a high-level activity, wherein the trigger is authored by the advertiser and includes a condition indicating multiple primitive features that characterize the high-level activity” (step (a)); (2) “receiving a bid for the trigger, from at least the advertiser from which the trigger was received” (step (b)); (3) “receiving . . . contextual information that includes at least the customer’s location trace” (step (c)); and (4) “identifying . . . based on the contextual information, a set of features that characterize the customer’s activity” (step (d)), (5) “in response to determining that the identified features of the customer’s contextual information satisfy the trigger’s primitive features, identifying an advertising opportunity that corresponds to the trigger’s high-level activity” (step (e)), (6) “in response to the advertiser’s bid for the trigger being the winning bid, obtaining an advertisement for the advertising opportunity from the advertiser’s bid” (step (f)), (7) “presenting the advertisement to the customer . . . during an opportunity period associated with the identified advertising opportunity” (step (g)), and (8) “in response to a successful advertisement presentation to the customer . . . providing a reward to the advertiser” (step (h)) — in other

words, to targeted advertising or marketing, which is a method of organizing human activity, and is considered to be an ineligible abstract idea.

See 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50, 52 (Jan. 7, 2019) (“Revised Guidance”).

Directing advertisements to a customer based on contextual information is a long-standing economic practice, as evidenced by the Specification. For example, the Specification describes that traditional advertising provides activity-based advertisements in the form of radio advertisements broadcast during an activity, printed advertisements on ticket stubs and receipts, and signs inside retail stores. Spec. ¶ 5. Allowing advertisers to bid on targeted advertising opportunities also is a fundamental economic practice. *See id.* ¶ 23 (conventional, search-based Internet advertising allows advertisers to bid on online auctions for keyword combinations). Targeting advertising based on contextual information, as recited in the claims, is akin to economic practices that the courts have held to be patent-ineligible. *See, e.g., Morsa v. Facebook, Inc.*, 77 F. Supp. 3d 1007, 1013 (C.D. Cal. 2014), *aff'd*, 622 F. App'x 915 (Fed. Cir. 2015) (concluding that claims directed to “targeting advertisements to certain consumers” were no more than an abstract idea); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (tailoring information presented to a user based on particular information); *Affinity Labs of Texas, LLC v. Amazon.com, Inc.*, 838 F.3d 1266, 1271 (Fed. Cir. 2016) (customizing a user interface to have targeted advertising based on user information).

The Specification discloses that the claimed method for providing activity-based advertisements to a customer’s mobile device would

“complement[] conventional advertising methods” and “better target a customer’s needs and dynamically adjust to a customer’s activity.”

Spec. ¶ 6. In other words, the invention seeks to better target the advertisements presented to a customer. That is, the claimed invention, understood in light of the Specification, seeks to improve an improvement to a process that is itself abstract, and does not focus on only any claimed means for accomplishing that goal that improves technology.

We find no indication in the Specification, nor do Appellants direct us to any indication, that the operations recited in claim 1 invoke any assertedly inventive programming, require any specialized computer hardware or other inventive computer components, i.e., a particular machine, or that the claimed invention is implemented using other than generic computer components (e.g., server computer, mobile computing device having a display and a global position service sensor) to perform generic computer functions (sending, receiving, identifying, determining, presenting. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”)).

We also find no indication in the Specification that the claimed invention effects a transformation or reduction of a particular article to a different state or thing. Nor do we find anything of record, short of attorney argument, that attributes any improvement in computer technology and/or functionality to the claimed invention or that otherwise indicates that the

claimed invention integrates the abstract idea into a “practical application,” as that phrase is used in the Revised Guidance.³

Appellants argue that claim 1 is analogous to the patent-eligible claims at issue in *Enfish* because it is directed to a specific implementation of a solution to a problem in the software arts. App. Br. 19. But here we find no improvement to the functioning of a computer analogous to the self-referential database in *Enfish*. Quoting paragraph 27 of the Specification, Appellants contend that the claim 1 “provide[s] the technology that a provider can use to deliver advertisements based on a customer’s activity and context.” *Id.* at 19–20. Yet, the only technology that claim 1 arguably appears to provide to the provider is a generic “server computer” that

³ We note that Appellants’ briefs were filed, and the Examiner’s Answer mailed, before the USPTO issued the Revised Guidance, which, by its terms, applies to all applications, and to all patents resulting from applications, filed before, on, or after January 7, 2019. In accordance with the Revised Guidance, a claim is generally considered “directed to” an abstract idea if (1) the claim recites subject matter falling within one of the following groupings of abstract ideas: (a) mathematical concepts; (b) certain methods of organizing human activity, e.g., fundamental economic principles or practices, commercial or legal interactions; and (c) mental processes, and (2) the claim does not integrate the abstract idea into a practical application i.e., 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. *See* Revised Guidance, 84 Fed. Reg. at 54–55. The Revised Guidance references the MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) §§ 2106.05(a)–(c) and (e)–(h) in describing the considerations that are indicative that an additional element or combination of elements integrates the judicial exception, e.g., the abstract idea, into a practical application. *Id.* at 55. If the recited judicial exception is integrated into a practical application, as determined under one or more of these MPEP sections, the claim is not “directed to” the judicial exception.

performs generic computer functions, such as receiving information from a mobile computing device and an advertiser, and processing the information. Further citing paragraph 47 of the Specification, Appellants assert that claim 1 uses an “optimization algorithm” to determining a relevant advertisement to present after an advertising opportunity is identified. But claim 1 does not recite criteria for selecting the winning bid, much less any technical details for an “optimization algorithm.” Paragraph 47 of the Specification provides an example in which at least one of five factors (i.e., (1) bid size, (2) time of the opportunity relative to the activity, (3) mix of topics being presented to the customer, (4) past experience with the customer, and (5) experimentation) is considered for choosing a winning bid. Thus, claim 1, broadly construed, requires no more than selecting the largest bid as the “winning bid.” We fail to see, and Appellants do not adequately explain, how claim 1 provides innovative technology or solves any problem peculiar to the software arts. Instead, claim 1 focuses on improving a process that is itself directed to an abstract idea.

Appellants argue that the Examiner omits two key elements of claim 1, “namely, that identifying the advertising opportunity is ‘in response to determining that the identified features of the customer’s contextual information satisfy the trigger’s primitive features’ and that providing the reward to the advertiser is ‘in response to a successful advertisement presentation to the customer on the display of the customer’s mobile computing device,’” i.e., claim 1, steps (e) and (h) App Br. 22; *see also* Reply Br. 9–10. However, as set forth above, the only portion of these two limitations that are not part of the abstract idea is the requirement in step (h) that presentation occurs “on the display of the customer’s mobile device.”

These aspects of the claim amount to no more than use of a generic computer in its ordinary capacity, which is not enough to confer patent eligibility.

Appellants argue that claim 1 is similar to the patent-eligible claims in *McRO* because the claims use limited rules in a process specifically designed to achieve an improved technological result in conventional industry practice. App. Br. 24; *see also id.* at 25 (asserting that the claims incorporate rules to present an advertisement and provide a reward to the trigger author); Reply Br. 14. In *McRO*, the Federal Circuit addressed claims directed to “[a] method for automatically animating lip synchronization and facial expression of three-dimensional characters” *McRO*, 837 F.3d at 1307. The court reviewed the specification of the patent at issue and found that, rather than invoking the computer merely as a tool, “[c]laim 1 of the [asserted] patent is focused on a specific asserted improvement in computer animation.” *Id.* at 1314. The court found that the plain focus of the claim was on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity.

Unlike the situation in *McRO*, claim 1 does not recite specific rules that improve computer animation techniques or some other technology. Instead, claim 1 recites generic computer operations, in which a computer is used in its ordinary capacity, for presenting targeted advertisements to a customer. For example, instead of presenting any specific rules for identifying an activity-based advertising opportunity, claim 1, step (a) recites that the advertiser authors the trigger for an advertising opportunity. Claim 1 also does not specify any rules for determining the winning bid

(step (f)), instead it recites the desired result of determining a winning bid. Likewise, claim 1 recites “providing a reward to the advertiser” in response to “a successful advertisement presentation to the customer” (step (h)), but this “rule” again recites a desired result without technical details to indicate any improvement in technology.

Although claim 1 recites “more” under step two of the *Alice* framework, we conclude the “more” in the form of “server computer” and “mobile computing device” having a GPS sensor and display is not significant. Rather, these generic components are nominal recitations of basic computer hardware. *See Fairwarning IP, Inc. v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096 (Fed. Cir. 2016) (“Claims 15–17 . . . add nothing more than similar nominal recitations of basic computer hardware, such as ‘a non-transitory computer-readable medium with computer-executable instructions’ and a microprocessor.”).

Appellants argue that the claims are analogous to those in *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) because they claim a technology-based solution to provide digital advertisements to a customer that overcome existing problems with other digital advertising systems. App. Br. 26–27. In *BASCOM*, the Federal Circuit held that “[t]he inventive concept described and claimed in the ’606 patent is the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user.” *BASCOM*, 827 F.3d at 1350. The court explained that the remote location of a filtering tool having customizable user-specific filtering features provides the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server, which is a technical improvement over

prior art ways of filtering content. *Id.* at 1350–51. Here, Appellants have not demonstrated any particular arrangement in the claim as providing an inventive concept parallel to *BASCOM*'s technology-based solution.

Appellants contend that the claimed invention improves the existing process of providing digital advertising opportunities by providing a system that facilitates an incentive mechanism that allows advertisers to develop trigger procedures based on variables of multiple semantic dimensions. Appeal Br. 27 (citing Spec. ¶¶ 21–23). Paragraph 23 of the Specification describes that “it is more difficult to define the [advertising] opportunities” in activity-based advertising, because of the many variables that can be involved. But the solution to this problem, as recited in claim 1, involves an advertiser authoring the trigger for an advertising opportunity, and providing a reward to the advertiser when the advertisement ultimately is presented to a customer. That is, the claim recites providing a payment to an advertiser for doing the more difficult work of defining an activity-based advertising opportunity. Providing payment for work performed is a fundamental economic concept, and thus an abstract idea.

We are not persuaded, on the present record, that the Examiner erred in rejecting claims 1, 2, 4–10, 12–18, and 20–26 under 35 U.S.C. § 101. Therefore, we sustain the Examiner's rejection.

DECISION

The Examiner's rejection of claims 1, 2, 4–10, 12–18, and 20–26 under 35 U.S.C. § 101 is affirmed.

Appeal 2018-002442
Application 12/062,785

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