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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JONATHAN K. KIES, KAMERON KERGER, and
ROBERT S. TARTZ

Appeal 2017-001791¹
Application 11/963,893²
Technology Center 3600

Before HUBERT C. LORIN, TARA L. HUTCHINGS, and
AMEE A. SHAH, *Administrative Patent Judges*.

HUTCHINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner’s final rejection of claims 1–59. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Our decision references Appellants’ Appeal Brief (“Appeal Br.,” filed June 14, 2016) and Reply Brief (“Reply Br.,” filed Nov. 14, 2016), and the Examiner’s Answer (“Ans.,” mailed Oct. 6, 2016) and Final Office Action (“Final Act.,” mailed Feb. 18, 2016).

² Appellants identify QUALCOMM Incorporated as the real party in interest. Appeal Br. 3.

CLAIMED SUBJECT MATTER

Appellants' invention relates to "optimization [of] the presentation of media content, specifically advertising content, on a wireless device based on user behavior." Spec. ¶ 1.

Claims 1, 22–25, 46, 50–52, and 56 are the independent claims on appeal. Claim 56, reproduced below with added bracketed notations, is illustrative of the claimed subject matter:

56. A method, performed by a wireless communication device, for presenting advertisements on the wireless communication device, comprising:

[(a)] capturing usage behavior data on the wireless communication device;

[(b)] storing the usage behavior data in a user profile;

[(c)] determining to present an advertisement on the wireless communication device;

[(d)] detecting an amount of the usage behavior data that is currently stored in a portion of the user profile;

[(e)] randomly selecting the advertisement if the detected amount is below a first threshold;

[(f)] selecting the advertisement based on the usage behavior data stored in the portion of the user profile if the detected amount is not below a second threshold; and

[(g)] presenting the selected advertisement at the wireless communication device.

REJECTION

Claims 1–59 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

ANALYSIS

Appellants argue claims 1–59 together. We select claim 56 as representative. Claims 1–55 and 57–59 stand or fall with claim 56. *See* 37 C.F.R. § 41.37(c)(1)(iv).

“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*, 134 S. Ct. 2347, 2354 (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*, 134 S. Ct. at 2355.

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 2357 (citing *Mayo*, 566 U.S. at 72–73, 79).

Here, the Examiner determines that the claims are “directed to optimizing / targeting the presentation of media on a mobile device by

comparing stored usage data in a user profile to a threshold.” Final Action 11. The Examiner further determines that “[p]roviding targeted advertisements is a concept relating to the economy and commerce, such as agreements between people in the form of contracts, legal obligations, and business relations, and as such it is considered a ‘fundamental economic practice’.” *Id.* Additionally, the Examiner determines that “[t]he claimed steps of receiving content, capturing and storing usage behavior, and selecting, for presentation, first, second and third media content based on a comparison of the data to a threshold, is simply the gathering and comparison of data which can be performed mentally and is an idea of itself.” *Id.* The Examiner determines that the claims are “similar to other concepts that have been identified as abstract by the courts.” *Id.* (comparing the claims with the claims held to be ineligible in *CyberSource*,³ *SmartGene*,⁴ *Digitech*,⁵ and *Flook*⁶). The Examiner further determines that the claimed elements show “no features, either alone or taken as a whole, that would amount to significantly more, as the claims merely recite using generic computer hardware performing the steps of receiving, storing, comparing and displaying data.” Ans. 7; *see also* Final Act. 11–12.

Appellants charge that the Examiner has failed to identify the alleged abstract idea “as it is recited . . . in the claim,” violating USPTO guidelines.

³ *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011).

⁴ *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App’x 950 (Fed. Cir. 2014).

⁵ *Digitech Image Techs., LLC v. Elecs. For Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014).

⁶ *Parker v. Flook*, 437 U.S. 584 (1978).

Appeal Br. 12 (quoting Comm’r of Patent Examination Memorandum, “Formulating a Subject Matter Eligibility Rejection and Evaluating the Applicant’s Response to a Subject Matter Eligibility Rejection” (May 4, 2016)). Appellants’ argument is not persuasive at least because there is no requirement that the Examiner’s formulation of an abstract idea must copy the claim language. Instead, the Federal Circuit has explained that “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.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp.*, 790 F.3d at 1346).

Appellants argue that the claimed invention is not directed to a fundamental economic practice, a method of organizing human activities, an idea of itself, or a mathematical formula. Appeal Br. 12; *see also* Reply Br. 3. However, claim 56 recites a method for presenting advertisements that includes the steps of: (a) capturing usage behavior data; (b) storing the usage behavior data in a user profile; (c) determining to present an advertisement; (d) detecting an amount of the usage behavior data that is current stored; (e) randomly selecting the advertisement if the detected amount is below a first threshold; (f) selecting the advertisement based on the stored usage behavior data; and (g) presenting the selected advertisement. In other words, claim 56 involves nothing more than collecting data (steps (a) and (b)), analyzing data (steps (c)–(f)), and presenting the result (step (g)) — a method of organizing activities and a fundamental economic practice, i.e., an abstract idea. Therefore, the Examiner’s determination that the claims are directed to “optimizing /

targeting the presentation of media on a mobile device by comparing stored usage data in a user profile to a threshold” and that this concept is similar to other concepts that have been held by the courts to be in the realm of abstract ideas has adequate support. *See, e.g., Elec. Power Grp. LLC v. Alstom, S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (characterizing collecting information, analyzing information by steps people go through in their minds, or by mathematical algorithms, and presenting the results of collecting and analyzing information, without more, as matters within the realm of abstract ideas); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed. Cir. 2015) (holding that tailoring content presented to a user is an abstract idea that has been long prevalent in our system of commerce, as exemplified by the longstanding practice of providing different newspaper inserts based on location of the individual); *Morsa v. Facebook, Inc.*, 77 F. Supp. 3d 1007, 1013 (C.D. Cal. 2014), *aff’d*, 622 F. App’x 915 (Fed. Cir. 2015) (“targeted advertising is just such a concept, insofar as matching consumers with a given product or service ‘has been practiced as long as markets have been in operation.’”).

Appellants argue that the Examiner’s level of detail in characterizing the claims stands “in contrast to the very high-level abstract ideas in the relevant case law.” Appeal Br. 12 (citations omitted). However, the Examiner’s articulation of the abstract idea at a lower level of abstraction or in slightly different ways is an insufficient basis for finding that the claims are not directed to an abstract idea. *See Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (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.”). Here, the Examiner alternatively could have described the abstract idea at a higher level of abstraction, such as “targeting the presentation of media”⁷ or in other ways, such as the variations presented in the Answer that Appellants noted at page 2 of the Reply Brief.⁸

Appellants argue that the claims are “directed to an improvement in computer functionality itself,” which facilitates “an improvement in system-wide delivery of media content.” Appeal Br. 13; *see also* Reply Br. 4–5. Specifically, pointing to paragraph 4 of the Specification, Appellants assert that having no knowledge of the user’s interests and/or usage behavior and randomly distributing advertisements results in inefficient distribution of the advertisements. *Id.* However, the problem Appellants seek to address — namely, targeting advertisements, to interested users (*see* Spec. ¶ 4) — is a business challenge, not an improvement to computer functionality itself.

Quoting paragraph 5 of the Specification, Appellants further argue that the claimed invention overcomes problems with prior art methods for targeting media content delivery. Appeal Br. 13–14. Specifically, according to Appellants, targeted media content delivery typically requires multiple and persistent communications from the wireless communication device to

⁷ *See* Spec. 7 (“a need exists to develop a method for targeting, otherwise referred to as optimizing, the presentation of delivered media content on a wireless communication device”).

⁸ The first page of the Reply Brief is numbered as page 1, but the remaining pages are not numbered. We refer to the pages in the Reply Brief as if numbered consecutively after page 1.

the server, requires a large amount of back-end servers to store user profiles and usage behavior files, and threatens user privacy. *Id.* at 13. Appellants contend that by performing the method at the wireless communication device “the functionality of the wireless communication device itself is improved” by obtaining targeted advertising “while using less power and bandwidth[] [and] without compromising the privacy of the user.” *Id.*

Yet, the relevant inquiry at step one is whether the claims are directed to an improvement to computer functionality versus an abstract idea, such as “economic or other tasks for which a computer is used in its ordinary capacity.” *Enfish*, 822 F.3d. at 1336. Here, the focus of the claims, as understood in light of the Specification, is on the abstract idea of targeting the presentation of media. *See, e.g.*, Spec. ¶¶ 1, 7, 9, 39–41. The wireless communication device is used to implement the abstract idea. We find no improvement in the computer capabilities of the claimed wireless communication device itself comparable to the improvement to computer functionality achieved by *Enfish*’s self-referential table for a computer database. *Enfish*, 822 F.3d. at 1336. To the extent that Appellants argue that claim 56 improves conventional targeted advertising technology, we are not persuaded that a generic wireless communication device (*see* Spec. ¶ 48) performing the abstract idea of targeted advertisement selection lends claim 56 to a step-one finding that claim 56 is directed to a nonabstract idea. *See BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016) (contrasting the claims at issue to those in *Enfish* that “were unambiguously directed to an improvement in computer capabilities” at step one of the analysis).

We also are not persuaded of Examiner error by Appellants' argument regarding preemption. Appeal Br. 13–15; *see also* Reply Br. 5–6. 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*, 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*, 134 S. Ct. at 2354). “[P]reemption may signal patent ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

Appellants argue that the Examiner has not provided adequate evidentiary support for the determination at page 12 of the Final Office Action that the additional elements or combination of elements in the claims are well-understood, routine, and conventional. Appeal Br. 15–17; *see also* Reply Br. 6. Yet, Appellants do not identify any additional elements recited in the claims that are not well-understood, routine, and conventional. Here, the only “additional elements” beyond the abstract idea recited in claim 56 is the use of the claimed wireless communication device to perform the method steps. But the Specification supports the Examiner’s finding that the claimed wireless communication device is a conventional wireless communication device. *See* Spec. ¶¶ 37, 48 (“The wireless communication device 12 may include any type of computerized, communication device,

such as cellular telephone, Personal Digital Assistant (PDA), two-way text pager, portable computer, and even a separate computer platform that has a wireless communications portal, and which also may have a wired connection to a network or the Internet.”). “That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*[, 93 S. Ct. 253 (1972)].” *CyberSource Corp. v. Retail Decision, Inc.*, 654 F.3d 1366, 1375 (Fed Cir. 2011).

Appellants additionally assert that the lack of prior art rejections of the claimed subject matter illustrates that the features are not well-understood, routine, and conventional in the art, and that the claims are limited to a particular technology environment. Appeal Br. 17; *see also* Reply Br. 6. As an initial matter, the mere recitation of a practical application for an abstract idea is insufficient 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.”).

Additionally, a finding of novelty or non-obviousness does not automatically lead to the conclusion that the claimed subject matter is patent-eligible. Although the second step is termed a search for an “inventive concept,” the analysis is not an evaluation of novelty or non-obviousness, but rather, 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 Corp.*, 134 S. Ct. at 2355. An abstract idea does not transform into an

inventive concept just because the prior art does not disclose or suggest it. *See Mayo*, 566 U.S. at 90.

Here, claim 56 additionally recites a wireless communication device operating in its ordinary capacity to implement the claimed steps. The claims recite an invention that is merely the routine or conventional use of a wireless communication device to carry out the abstract idea. *See Two-Way Media Ltd. v. Comcast Cable Comm'ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (although “Two-Way Media asserts that the claim solves various technical problems,” “[n]othing in the claims . . . requires anything other than conventional computer and network components operating according to their ordinary functions”) (citation omitted); *see also BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016) (claims that merely recite the abstract idea along with the requirement to perform it on generic computer components would not contain an inventive concept) (citing *CyberSource*, 654 F.3d at 1370). Appellants do not identify, and we do not find, any claim element or arrangement of claim elements that amounts to significantly more than the abstract idea.

Appellants also seek to analogize the present claims to the claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). Appeal Br. 17–20 (citing Spec. ¶¶ 4–5 as describing several technology-specific problems that the claims overcome); *see also* Reply Br. 6–7. However, unlike Appellants’ claim 56, the invention claimed in *DDR Holdings* does more than simply implement the abstract idea using a conventional computer operating in its ordinary capacity and with insignificant added activity. *See DDR Holdings*, 773 F.3d at 1258. Instead, the claims at issue in *DDR Holdings* “specify how interactions with the

Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink.” *Id.* Here, claim 56 improves the process for selecting targeted advertising, which is an abstract idea. The process is implemented locally on a wireless communication device instead of remotely at a server, but there is no indication that implementing the process at a distributed wireless communication device instead of a central server is a problem rooted in technology or amounts to an inventive concept sufficient to transform the abstract idea to a particular application.

In view of the above, we are not persuaded that the Examiner erred in determining that claim 56 is directed to a judicial exception without significantly more. Claims 1–55 and 57–59 fall with claim 56.

DECISION

The Examiner’s rejection of claims 1–59 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