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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RICK A. HAMILTON II, BRIAN M. O'CONNELL,
CLIFFORD A. PICKOVER, and KEITH R. WALKER¹

Appeal 2017-008577
Application 11/679,715
Technology Center 3600

Before KALYAN K. DESHPANDE, CHARLES J. BOUDREAU, and
SHARON FENICK, *Administrative Patent Judges*.

FENICK, *Administrative Patent Judge*.

DECISION ON APPEAL

Introduction

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 3–8, 10–14, and 16–21. Claims 2, 9, 15, and 22–24 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b)(1).

We AFFIRM.

¹ Appellants identify International Business Machines Corporation as the real party in interest. App. Br. 1.

Invention

Appellants' invention relates to planning and paying for advertisements in a virtual universe (VU). Spec. ¶ 4. Specifically, it is determined which portions of the VU and which avatars in the VU are most viewed, and advertisements are placed in/around the most viewed portions and avatars. *Id.* ¶¶ 4, 34. Users associated with those portions of the VU and avatars may be compensated based on the frequency or time that the advertisements are viewed. *Id.* ¶¶ 4, 35.

Exemplary Claim

Claims 1, 8, 14, and 21 are independent. Claim 1, reproduced below, is exemplary:

1. A method of planning and paying for advertisements in a virtual universe (VU), comprising:

identifying, via a computer device, portions of the VU and avatars in the VU that are most viewed, wherein the identifying comprises:

tracking, via an analysis module, a set of data including a quantity of texture renderings, a duration, and a distance that each portion and avatar in the VU is being viewed;

determining, via the analysis module, a set of agents controlled by an Artificial Intelligence;

excluding, via the analysis module, from the set of data any data pertaining to the set of agents controlled by an Artificial Intelligence;

determining, via the analysis module, a period of time that a user viewing portions of the VU and avatars in the VU has had no interaction with the VU; and

excluding, via the analysis module, from the set of data any data pertaining to the period of time the user is not interacting with the VU;

planning, for an advertiser, a placement of advertisements in the VU and potential avatars for an advertisement deal based on the identifying, wherein the potential avatars are user owned avatars which have been identified as avatars which are most viewed; and

establishing a compensation plan based on a viewing of the advertisements, wherein the compensation plan determines a compensation from the advertiser to an advertising user owning a selected one of the portion of the VU or the potential avatar, and the viewing is calculated following a placement of the advertisements in the selected one of the portion of the VU or on the potential avatar.

Rejection on Appeal

The Examiner rejects claims 1, 3–8, 10–14, and 16–21² under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Final Act. 2–6; Ans. 4–5.

² The Examiner’s Final Rejection lists claims 1, 3–8, 14, and 16–21, but not claims 10–13, both as “pending in the application” and as being rejected. Final Act. 1–3, 5. As Appellants point out (App. Br. 10, 19), the omission of claims 10–13 from the claim listings appears to have been a typographical error, as the Examiner rejects all pending claims under 35 U.S.C. § 101 and does not indicate that any claims are allowed (*see* Final Act. 1). We note, moreover, that claims 10–13 correspond to claims 3, 4, 6, 7, and claims 16, 17, 19, and 20, which are all explicitly listed as rejected under 35 U.S.C. § 101 and differ from claims 10–13 only in their dependency from different independent claims.

ANALYSIS

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter, or [a] new and useful improvement thereof.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted § 101 to “contain[] an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. 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)).

In *Alice*, the Supreme Court reiterated the two-step framework previously set forth in *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (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. The first step in this analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts,” e.g., to an abstract idea. *Id.* If the claims are not directed to a patent-ineligible concept, the inquiry ends. Otherwise, the inquiry proceeds to the second step, in which 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 78, 79). The claims must contain an “inventive concept,” or some element or combination of elements “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself.” *Id.* (quoting *Mayo*, 566 U.S. at 72–73).

Alice/Mayo Step 1

The Examiner determines that the claims are directed to an “abstract idea of a marketing and sales act” (Final Act. 3), in particular an “abstract idea of displaying a[] virtual or real advertisement, a fundamental economic practice for a commercial activity” (Ans. 5). According to the Examiner, the steps of claim 1 “describe the concept of advertising over communication networks” similar to the concepts involving advertising and payments over the Internet that were determined to be abstract in *Ultramerical, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014). Final Act. 4.

According to Appellants, the claims are “directed toward planning and establishing advertisements within a virtual universe, and subsequently paying advertising users in the virtual universe for complying with the ability to provide an advertisement within [] the virtual universe.” App. Br. 11–12. Appellants argue that this is not merely an abstract idea, but that the claimed “method, system, or program product applies to, and affects, a computer network and its capacity to efficiently provide advertisements and compensate advertising users within a virtual world; a commercial avenue that is unique and unexplored for providing commercial benefits and/or e-commerce opportunities to businesses.” *Id.* at 12.

We agree with the Examiner that the claims are directed to patent-ineligible concepts of advertising. Claim 1, for example, describes identifying areas and individuals that are most viewed (“identifying, via a computer device, portions of the VU and avatars in the VU that are most viewed”), planning placement of advertisements and advertisement deals according to the most-viewed areas and individuals (“planning, for an advertiser, a placement of advertisements in the VU and potential avatars for an advertisement deal based on the identifying”), and planning

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compensation of individuals who facilitate the advertising, based on placed advertisements being viewed (“establishing a compensation plan based on a viewing of the advertisements, wherein the compensation plan determines a compensation from the advertiser to an advertising user owning a selected one of the portion of the VU or the potential avatar”). In other words, the claim is directed to placing advertisements where they “will have a great amount of exposure and/or visibility” and compensating individuals who permit or “provide advertisements” (App. Br. 12)—in even shorter terms, “planning and paying for advertisements” (Spec. ¶ 4). This is a basic and well-established abstract idea with no particular concrete or tangible form, like the concept of offering free media products in exchange for watching advertisements found to be abstract in *Ultramercial*, as the Examiner notes. *See Ultramercial*, 772 F.3d at 715.

Appellants contend that the claims recite “more than a series of steps that can each be performed mentally” and that “[p]lanning, placing and compensating for advertisements within a virtual universe that is entirely based on and reliant on computer infrastructures . . . ‘is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.’” App. Br. 13 (quoting *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014)). Specifically, Appellants contend that “the claimed device can improve efficiencies relating to strategically placing advertisements within a virtual universe and adequately, accurately and safely compensating targeted users for their participation in advertising in the virtual universe.” *Id.*

We disagree with Appellants that the claims are directed to a computer-centric problem like in *DDR*. In *DDR*, the Court found that the claims addressed “the problem of retaining website visitors that . . . would

be instantly transported away from a host’s website after ‘clicking’ on an advertisement and activating a hyperlink,” and that the claims “d[id] not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet.” *DDR*, 773 F.3d at 1257. However, the claims in the instant case merely adopt a pre-existing business practice—strategically placing advertisements and paying for the advertising—for use with computer technology, in a virtual universe. Advertisement placement and paying for advertising are not challenges particular to computer technology or the virtual universe environment. Performing the “identifying” step “via a computer device” and placing the advertisements “in a virtual universe,” as recited in claim 1, do not turn the abstraction into something concrete, for a claim that is directed to an abstract idea does not become patent-eligible by “merely requir[ing] generic computer implementation” (*Alice*, 134 S. Ct. at 2357) or “limiting the claims to [a] particular technological environment” (*Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016)). *See also Ultramercial*, 772 F.3d at 716 (“the use of the Internet is not sufficient to save otherwise abstract claims from ineligibility under 101”) (citing *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011)); *DDR*, 773 F.3d at 1256 (claims “directed to nothing more than the performance of an abstract business practice on the Internet or using a conventional computer. . . . are not patent-eligible”).

Appellants further contend that “the claims are narrow and detailed enough to avoid preemption, and they do not recite a method that would be performed by existing human activity” because they “only seek[] to obtain protection for a specific and unique approach of planning, placing, and compensating for advertisements in a virtual world” App. Br. 13–14.

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Although the extent of preemption is a consideration, the absence of complete preemption is not dispositive. *See, e.g., Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (“While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.”); *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d at 1346 (“[T]he Supreme Court has stated that, even if a claim does not wholly pre-empt an abstract idea, it still will not be limited meaningfully if it contains only insignificant or token pre- or post-solution activity—such as identifying a relevant audience, a category of use, field of use, or technological environment.”) (citations omitted), *vacated and remanded, WildTangent, Inc. v. Ultramercial, LLC*, 134 S. Ct. 2870 (2014) (remanding for further consideration in light of *Alice*). Thus, even if the claims do not preempt the abstract idea, that alone is not enough to render the claims patent-eligible.

Accordingly, we agree with the Examiner that the claims are directed to an abstract idea.

Alice/Mayo Step 2

The Examiner determines that the claims do not include additional elements that, when considered both individually and as an ordered combination, are sufficient to amount to significantly more than the abstract idea because “[t]he claim recites the additional limitation of a computer device, a generic computer component recited as performing generic computer functions that are well-understood, routine and conventional activities [and] amount to no more than implementing the abstract idea with a computerized system.” Final Act. 4. According to the Examiner, “[t]he

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claim’s invocation of a ‘computer device’ as well as ‘virtual universe’ . . . adds no inventive concept.” Ans. 5.

Appellants argue that the claim elements, considered individually, amount to significantly more than an abstract idea because they

recite the process of analyzing the data in detail to determine avatars or agents control[led] by artificial intelligence (AI), determining avatars or agents who do not meet exposure or interaction requirements within the virtual universe and excluding these AI controlled and determined avatars or agents from receiving the capabilities of being included in the advertising and compensation plan.

App. Br. 16. Appellants further argue that the claim elements, considered as a combination, “recite unique, detailed features that clearly improve the efficiency and effectiveness of detailed processes of advertising and compensating avatars or agents who advertise in a virtual universe.” *Id.* at 18.

We agree with the Examiner. First, we are unpersuaded by Appellants that the “determining” and “excluding” limitations, considered individually, amount to significantly more than the abstract idea. Although these limitations add a degree of particularity to the claims, the particularity is only in excluding certain data (data pertaining to AI-controlled agents and periods of time in which the user is not interacting with the VU) from the set of data tracked to identify the most viewed portions and avatars in the VU, in order to plan and pay for advertisements. Our reviewing court has “treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.” *Elec. Power Grp.*, 830 F.3d at 1353; *see id.* at 1355 (“Merely requiring the selection and manipulation of information . . . by

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itself does not transform the otherwise-abstract processes of information collection and analysis.”). Thus, the “determining” and “excluding” limitations are insufficient to transform the abstract idea of planning and paying for advertisements into patent-eligible subject matter because they “represent insignificant ‘data-gathering steps,’ . . . and thus add nothing of practical significance to the underlying abstract idea.” *Ulramercial*, 772 F.3d at 716 (citing *CyberSource*, 654 F.3d at 1370).

Furthermore, as the Examiner finds, there is “no indication that the combination of elements improves the functioning of a computer or improves any other technology.” Final Act. 4–5. Although Appellants contend that the claim elements as a combination “recite unique, detailed features that clearly improve the efficiency and effectiveness of detailed processes of advertising and compensating avatars or agents who advertise in a virtual universe” (App. Br. 18), the claims do not recite any such improvement. For example, “they do not require an arguably inventive set of components or methods, such as measurement devices or techniques, that would generate new data. They do not invoke any assertedly inventive programming.” *Elec. Power Grp.*, 830 F.3d at 1355. Rather, claim 1 generically recites a “computer device” and an “analysis module” for performing the claimed steps. The claims also recite various other “modules” (independent claim 8), a “program product” stored on a “computer readable medium comprising program code” for a “computer system” (independent claim 14), and a “computer infrastructure” (independent claim 21). According to the Specification, these elements take the form of “any specific purpose computing article of manufacture comprising hardware and/or computer program code for performing specific functions, any computing article of manufacture that comprises a

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combination of specific purpose and general purpose hardware/software, or the like.” Spec. ¶ 29. The Specification further indicates that “the program code and hardware can be created using standard programming and engineering techniques, respectively.” *Id.* Our reviewing court has held that such “nominal recitations of basic computer hardware . . . merely graft generic computer components onto otherwise-ineligible [] claims.”

FairWarning IP, LLC v. Iatric Sys., Inc., 839 F.3d 1089, 1096 (Fed. Cir. 2016); *see also Elec. Power Grp.*, 830 F.3d at 1354 (“gathering and analyzing information of a specified content, . . . and not any particular assertedly inventive technology for performing those functions” is insufficient to transform an abstract idea into patent-eligible subject matter).

Thus, we agree with the Examiner that there are no claim elements—considered individually or as an ordered combination—that transform the nature of the claims into a patent-eligible application. Rather, the claimed invention is directed to the broad concept of planning and paying for advertisements.

Appellants contend that “[t]he argument that these processes are not insignificant or routine activities is further strengthened by the fact that the claims have overcome all rejections under 35 U.S.C. 102 and 103.” App. Br. 17. We, like the Examiner, find this unpersuasive. *See* Ans. 4. Our reviewing court has disagreed that “the addition of merely novel or non-routine components to the claimed idea necessarily turns an abstraction into something concrete.” *Ultramercial*, 772 F.3d at 715.

Appellants further contend that the rejection is deficient because it “does not adequately connect the allegedly abstract idea of Appellants’ claims with an established judicial exception” (Reply Br. 4–5) and that the Examiner “does not analyze the claims under Step 2B (e.g., the significantly

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more analysis)” (App. Br. 15). Appellants acknowledge that “the Examiner suggests in the Final Office Action and the Examiner’s Answer that the claims are directed to a “basic economic practice.”” Reply Br. 5 (citing Ans. 5; Final Act. 4). Appellants also acknowledge the Examiner’s determination that the invocation of a “computer device” and a “virtual universe” fails to add an inventive concept to the claims. Reply Br. 2 (citing Ans. 5). We have reviewed the record and determine that the Examiner provides sufficient reasoning in determining that the claims are directed to an abstract idea and that they do not contain elements sufficient to transform the abstract idea into patent-eligible subject matter.

For the foregoing reasons, we are not persuaded the Examiner erred in rejecting claims 1, 3–8, 10–14, and 16–21 under 35 U.S.C. § 101.

DECISION

The Examiner’s rejection of claims 1, 3–8, 10–14, and 16–21 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