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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* BRADLEY HOPKINS SMALLWOOD, KURT DODGE RUNKE,  
and GOKUL RAJARAM

Appeal 2017-003912  
Application 13/354,849<sup>1</sup>  
Technology Center 3600

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Before JAMES R. HUGHES, JENNIFER L. MCKEOWN,  
and NORMAN H. BEAMER, *Administrative Patent Judges*.

BEAMER, *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 1–6, 10–18, and 20–25. Claims 7–9 and 19 are cancelled. (Final Act. 2.) We have jurisdiction over the pending rejected claims under 35 U.S.C. § 6(b).

We affirm.

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<sup>1</sup> Appellants identify Facebook, Inc. as the real party in interest. (Br. 2.)

## THE INVENTION

Appellants' disclosed and claimed invention is directed to an online advertising system that receives ads and ad exposure goals, and selects an ad for presentation among the received ads based on the received ad exposure goals associated with the ads and the determined amount of exposure for each ad. (Abstract.)

Independent claim 1, reproduced below, is illustrative of the subject matter on appeal:

1. A method comprising:  
receiving, at an ad server from one or more advertisers a plurality of ads, each ad associated with an ad exposure goal, the ad server comprising one or more hardware processors;  
for each of the plurality of ads,  
determining, by an exposure determination engine communicatively coupled to the ad server, that the ad has been selected for presentation to each of a plurality of users on one or more of a plurality of ad mediums, the exposure determination engine comprising one or more hardware processors,  
for each of the plurality of users, weighting, by the exposure determination engine, a length of time that the user was exposed to the ad by a weighting factor to generate a weighted length of time, the weighting factor determined based on information associated with the user, and  
computing, by the exposure determination engine, an exposure time associated with the ad by aggregating the weighted lengths of time;  
receiving, at the ad server from a client, a request for an ad; and  
selecting, by the ad server, an ad from the plurality of ads for presentation to the client based on the ad exposure goals and the exposure times associated with the plurality of ads.

## REJECTIONS

The Examiner rejected claims 1–6, 10–18, and 20–25 under 35 U.S.C. § 101 as being directed to ineligible subject matter. (Final Act. 2–5.)

The Examiner provisionally rejected claims 1–6, 10–18, and 20–25 on the ground of nonstatutory double patenting as being unpatentable over claims 1–20 of copending Application No. 13/354,785. (Final Act. 5–6.)<sup>2</sup>

## ISSUE ON APPEAL

Appellants’ arguments in the Appeal Brief present the following dispositive issue:<sup>3</sup>

Whether claims 1–6, 10–18, and 20–25 are directed to ineligible subject matter. (Br. 3–7.)

## ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellants’ arguments that the Examiner erred. We disagree with Appellants’ arguments, and we adopt as our own (1) the pertinent findings and reasons set forth by the Examiner in the Action from which this appeal is taken (Final Act. 2–5, 7–10) and (2) the corresponding findings and reasons set

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<sup>2</sup> Appellants’ sole response to this rejection was a request that it be held in abeyance, but the Examiner maintains the rejection. (Final Act. 6.) Therefore, this rejection is summarily affirmed.

<sup>3</sup> Rather than reiterate the arguments of Appellants and the positions of the Examiner, we refer to the Appeal Brief (filed June 7, 2016) (herein, “Br.”); the Final Office Action (mailed Dec. 15, 2015) (herein, “Final Act.”); and the Examiner’s Answer (mailed Sept. 8, 2016) (herein, “Ans.”) for the respective details.

forth by the Examiner in the Examiner's Answer in response to Appellants' Appeal Brief. (Ans. 3–12.) We concur with the applicable conclusions reached by the Examiner, and emphasize the following.

The Examiner concludes the pending claims are patent-ineligible under 35 U.S.C. § 101:

[The claims] are directed to the abstract idea of calculating a length of time that a user was exposed to an ad by a weighting factor to generate a weighted length of time, and computing an exposure time associated with the ad by aggregating the weighted lengths of time. The claimed concept is merely applying a weighting factor to the length of time that a user was exposed to an ad.

(Final Act. 2–3.) In addition, the Examiner concludes:

The claims do not impose meaningful limits that apply the formula to improve an existing technological process” . . . . [The claims do] not include additional elements that are sufficient to amount to significantly more than the judicial exception because the steps require no more than a generic computer. The claim's use of “ad medium” and “computer processor” adds no inventive concept. These devices are being used to create a computer network environment to perform a well-known business practice known from the pre-internet world. This concept is not “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks” . . . . Additionally, the claimed functions of the generic computer represent insignificant data gathering steps and thus add nothing of practical significance to the abstract idea. . . . Viewed as a whole, these additional claim element(s) do not provide meaningful limitation(s) to transform the abstract idea into a patent eligible application of the abstract idea such that the claim(s) amount to significantly more than the abstract idea itself.

(Final Act. 3–4.)

Appellants argue, *inter alia*, the Examiner has not identified an abstract idea that is related to the claimed subject matter, has not demonstrated that the abstract idea is comparable to those identified by the applicable precedent, and is neither directed to a mathematical formula, an “idea of itself,” nor a fundamental economic practice. (Br. 6–10.) Appellants also argue the claims recite significantly more than any abstract idea, because they address a business challenge particular to the Internet, and make use of an unconventional “ad server” and “exposure determination engine.” (Br. 11–16.)

We are not persuaded by Appellants’ arguments. We adopt the Examiner’s findings and conclusions provided in the Final Office Action and Answer. (Final Act. 2–5, 7–10; Ans. 3–12.) The Supreme Court has long held that “[l]aws 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 *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 596 U.S. 576, 598–99 (2013)). The “abstract ideas” category embodies the longstanding rule that an idea, by itself, is not patentable. *Alice Corp.*, 134 S.Ct. at 2354–55 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

In *Alice*, the Supreme Court sets forth an analytical “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Id.* at 2355. The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts,” such as an abstract idea. *Id.* If the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements

of the claims “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 Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 79, 78 (2012)). In other words, the second step is to “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.’” *Id.* (quoting *Mayo*, 566 U.S. at 73.) The prohibition against patenting an abstract idea “‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or adding ‘insignificant postsolution activity.’” *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (internal citation omitted.)

Turning to the first step of the Alice inquiry, we agree with the Examiner that Appellants’ claims are reasonably characterized as directed to an abstract idea of “of calculating a length of time that a user was exposed to an ad by a weighting factor to generate a weighted length of time, and computing an exposure time associated with the ad by aggregating the weighted lengths of time.” (Final Act. 2.) As the Examiner concludes, the fact that the claims further recite the abstract idea at a higher level of specificity does not alter the conclusion that the claims are directed to an abstract idea. (Ans. 3.)

There is no definitive rule to determine what constitutes an “abstract idea.” Rather, the Federal Circuit has explained that “both [it] and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir.

2016); *see also Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (explaining that, in determining whether claims are patent-eligible under § 101, “the decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided”). The Federal Circuit also noted that “examiners are to continue to determine if the claim recites (i.e., sets forth or describes) a concept that is similar to concepts previously found abstract by the courts.” *Amdocs*, 841 F.3d at 1294 n.2 (internal citation omitted.)

Here, the claims are similar to the claims that the Federal Circuit determined are patent ineligible in *Electric Power Group, LLC v. Alstom S. A.*, 830 F.3d at 1353–54 (collecting information and “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract-idea category”). The Federal Circuit has also held similar data manipulation claims to be directed to patent-ineligible abstract ideas — *see Digitech Image Techs., LLC v. Elecs. For Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) (employing mathematical algorithms to manipulate existing information); *OIP Tech., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (offer-based price optimization); *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); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1346 (Fed. Cir. 2013) (generating tasks in an insurance organization); and *Versata Dev. Grp. v. SAP Am.*, 793 F.3d 1306, 1333–34 (Fed. Cir. 2015) (price-determination method involving arranging

organizational and product group hierarchies). Here, the data gathering and analyzing steps recited in the claims are an abstract mental process that can “be performed in the human mind, or by a human using a pen and paper.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011). Appellants’ arguments that “the human mind is notoriously bad at storing data precisely,” and is unable to receive and serve ads “at a high frequency” are irrelevant and not commensurate with the scope of the claims, which are not limited to the high volume of information and fast operations premised by these arguments. (Br. 10–11.)

Turning to the second step of the *Alice* inquiry, we find nothing in the claims that adds anything “significantly more” to transform the abstract idea of determining a working and living area for a person. *Alice*, 134 S. Ct. at 2357. Beyond an abstract idea, the claims merely recite “‘well-understood, routine, conventional activit[ies].’” *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 566 U.S. at 73). In particular, we agree with the Examiner that the “ad server” and “exposure determination engine” do not add significantly more to the abstract idea embodied in the claims. (Ans. 9–12.) In particular, those modules are described in the Specification as software modules of an “advertisement system” that are “implemented with a computer program . . . which can be executed by a computer processor for performing any or all of the steps, operations, or processes described.” (Spec. Fig. 2; ¶¶ 49, 77, 78.) Thus, Appellants’ arguments that a generic computer would not be capable of performing the claimed steps (Br. 11) is inconsistent with the Specification, and is unpersuasive attorney argument unsupported by the record. Considered individually or taken together as an ordered combination, the claim elements fail “to ‘transform’ the claimed abstract

idea into a patent-eligible application.” *Id.* at 2357 (quoting *Mayo*, 566 U.S. at 72–73, 78).

Because Appellants’ claims are directed to a patent-ineligible abstract concept and do not recite something “significantly more” under the second prong of the *Alice* analysis, we sustain the Examiner’s 35 U.S.C. § 101 rejection of the pending claims.

### CONCLUSION

For the reasons stated above, we sustain the Examiner’s rejection of claims 1–6, 10–18, and 20–25 as being directed to patent-ineligible subject matter under Section 101.

As stated above, the provisional rejection of the pending claims on the ground of nonstatutory double patenting is summarily affirmed.

### DECISION

We affirm the Examiner’s decision rejecting claims 1–6, 10–18, and 20–25.

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED