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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* HANNING ZHOU, JIAN LIANG, and SHERIF M. YACOUB

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Appeal 2017-003145  
Application 11/965,636<sup>1</sup>  
Technology Center 3600

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Before BIBHU R. MOHANTY, MICHAEL W. KIM, and  
BRADLEY B. BAYAT, *Administrative Patent Judges*.

BAYAT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Final Rejection of claims 1–41, which are all the pending claims in the application. We have jurisdiction under 35 U.S.C. § 6(b).

Appellants’ invention relates to “[a] system and a method of incorporating advertisements in on-demand printed content . . . In response to receiving a request from a consumer for on-demand printed content, an advertisement is selected . . . included within the requested content . . . [and]

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<sup>1</sup> Appellants identify the real party in interest as “Amazon Technologies, Inc.” Appeal Br. 2 (filed April 18, 2016).

an on-demand printed copy of the requested content, includ[ing] the selected advertisement, is printed.” Spec., Abstract.

*Claimed Subject Matter*

Claims 1, 15, and 21 are the only independent claims on appeal and recite substantially similar subject matter. *See* Appeal Br., Claim App.

Claim 1 is illustrative of the subject matter on appeal, and recites:

1. A method of providing printed content in response to a request for the printed content, the method comprising:
  - obtaining, in at least one computing device, a request for content;
  - in response to the request, obtaining, in the at least one computing device, a digital image of a page having a fixed format, the requested content including the page;
  - selecting, in the at least one computing device, an advertisement to be included in the requested content;
  - embedding, in the at least one computing device, the selected advertisement within a region of the digital image; and
  - generating, in the at least one computing device, an on-demand printed copy of the requested content including a printed copy of the digital image within which the selected advertisement is embedded.

Appeal Br. 17, Claims App.

*Rejection*

Claims 1–41 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. *See* Final Act. 3–11 (mailed December 2, 2015).

We AFFIRM.

## ANALYSIS

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.<sup>2</sup> 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. *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (internal quotation marks and citation omitted).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Incorporated*, 566 U.S. 66, 82–84 (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 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., to 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. 66, 79, 78).

In contesting the Examiner’s rejection under 35 U.S.C. § 101, Appellants argue claims 1–41 as a group. *See* Appeal Br. 5–15. We select

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<sup>2</sup> There is no dispute that the pending claims are directed to one of the statutory categories of invention. *See* Final Act. 4.

independent claim 1 as the representative claim for this group, and, thus, claims 2–41 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Claim 1 recites a “method of providing printed content in response to a request for the printed content” comprising five steps: (1) obtaining a request for content, (2) obtaining an image of a page including the requested content, (3) selecting an advertisement, (4) embedding the advertisement within the image, and (5) generating a printed copy of the requested content including the advertisement. The claim identifies the image of a page as being in digital form, and each of steps (1)–(5) is performed in at a “computing device,” which the Specification describes as “personal computers, mini- and/or mainframe computers, laptop computers, and the like.” Spec. 5:23–25.

In disputing the Examiner’s determination under *Alice* step one, Appellants argue that “the subject matter of the claims is not similar to any of the concepts identified by the Office in *Identifying Abstract Ideas* that the courts consider a patent-ineligible idea ‘of itself’” (Appeal Br. 8), including the concept of “[d]isplaying an advertisement in exchange for access to copyrighted media” (*id.* at 9), held abstract in *Ultramarcial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014).

Contrary to Appellants’ argument, we see little character difference between the concept of including an advertisement in requested content in exchange for providing a printed copy of the requested content with the advertisement, and the concept described in *Ultramarcial*. In essence, claim 1 describes the concept of using advertising as an exchange or currency. This concept is also similar to the concepts involving human activity relating

to commercial practices (e.g., hedging in *Bilski*) that have been found by the courts to be abstract ideas.

We also are unpersuaded by Appellants' contention that "the claims are directed at a technological solution to problems faced by publishers when incorporating additional content such as advertisements into on-demand printed publications such as rare or out-of-print documents where a traditional print run would not be cost effective" (Appeal Br. 9; *see also* Reply Br. 5–6). First, claim 1 generally recites "printed content," and is not limited to "rare or out-of-print documents." Second, even though the *Ultramercial* claims were directed to a specific method of advertising and content distribution that was previously unknown and never employed on the Internet before (*Ultramercial*, 772 F.3d at 714), the court, nevertheless, concluded that those claims were patent ineligible because they "merely recite[d] the abstract idea of 'offering media content in exchange for viewing an advertisement.'" *Id.* (citation omitted).

We also disagree with Appellants' contention that claims are directed to a technological solution. *See* Reply Br. 6–8. Appellants have not offered any evidence or technical reasoning that the computer implementation improves the functioning of the computing device itself. There is a fundamental difference between computer functionality improvements, on the one hand, and uses of existing computers as tools to perform a particular task, on the other. In *Enfish*, for example, the court noted that "[s]oftware can make non-abstract improvements to computer technology just as hardware improvements can." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). The court put the question as being "whether the focus of the claims is on [a] specific asserted improvement in computer

capabilities . . . or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Id.* at 1335–36. The court found that the “plain focus of the claims” there 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. Thus, the question being, whether the claim as a whole “focus[es] on a specific means or method that improves the relevant technology” or is “directed to a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). We find the focus of the claim as whole here on is on the latter, because the claimed computing device is merely invoked as a tool in an advertising scheme.

Under *Alice* step two, Appellants contend that the claims amount to significantly more than the abstract idea. Appeal Br. 10. In particular, Appellants argue that “[i]f the limitations of claim 1 were merely well-understood, routine and conventional in the field, evidence of such would likely be provided in a prior art rejection, but no such rejection is made.” *Id.* at 11.

To the extent that Appellants maintain that the elements of the claim necessarily amount to “significantly more” than the abstract idea, because the claimed system is allegedly patentable over the prior art, Appellants misapprehend the controlling precedent. Although the second step in the *Alice* framework is termed a search for an “inventive concept,” the analysis is not an evaluation of novelty or nonobviousness, 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*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo*, 132 S. Ct. at 1294). In other words, a novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent ineligible. *See Mayo*, 132 S. Ct. at 1304 (rejecting the suggestion that Sections 102, 103, and 112 might perform the appropriate screening function and noting that in *Mayo* such an approach “would make the ‘law of nature’ exception . . . a dead letter”); *see also Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016) (“[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility.”). Thus, an abstract idea is not transformed into an inventive concept just because the Examiner has not found prior art that discloses or suggests it. “Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.” *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117 (2013). Indeed, “[t]he ‘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).

Further, Appellants contend:

Much like the allowable claims in *DDR Holdings*, the claims of the instant application incorporate additional elements into requested content while maintaining visual elements. For example, claim 1 “obtain[s] . . . a digital image of a page having a fixed format,” “select[s] . . . an advertisement to be included in the requested content,” “embed[s] . . . the selected advertisement within a region of the digital image,” and ultimately “generat[es] . . . an on-demand printed copy of the

requested content including a printed copy of the digital image within which the selected advertisement is embedded.”

Appeal Br. 12; Reply Br. 12.

We cannot agree with Appellants’ contention that the claims before us are similar to the claims held eligible in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). In *DDR Holdings*, the Federal Circuit determined that although the patent claims at issue involved conventional computers and the Internet, the claims nevertheless addressed the problem of retaining website visitors who, if adhering to the routine, conventional functioning of the Internet hyperlink protocol, would be transported instantly away from a host’s website after “clicking” on an advertisement and activating a hyperlink. *DDR Holdings*, 773 F.3d at 1257. The court determined that those claims were directed to statutory subject matter because they claim a solution “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *Id.*

No such technological advance is evident in the claimed invention. Unlike *DDR Holdings*, Appellants do not identify any problem particular to computer networks and/or the Internet that claim 1 allegedly overcomes. Claim 1 does not recite the Internet or any other computer network. Nothing in the claim, understood in light of the Specification, requires anything more than a generic computing device. *See* Spec. 5:23–25. “[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.” *DDR Holdings*, 773 F.3d at 1256 (citation omitted).

Finally, citing *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016), Appellants maintain the

claims improve an existing technological process and “allow for introducing content in a particular region of an image of on-demand printed content such as a content-free region or another particular region of the image.” Reply Br. 14.

We do not agree because the court did not find that the claims in *Bascom* recited an inventive concept based solely on the specificity of the claimed filtering method. Instead, the court found that the claims represented a technical improvement to filtering content on the Internet. More particularly, the court 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 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, and 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. We do not see, and Appellants do not adequately explain, in what way claim 1 is like the claim of *Bascom* in claiming a technology-based solution.

In view of the foregoing, we are not persuaded that the Examiner erred in concluding that claim 1 is directed to non-statutory subject matter. Accordingly, we sustain the Examiner’s rejection of claim 1 under 35 U.S.C. § 101, including claims 2–41, which fall with claim 1.

Appeal 2017-003145  
Application 11/965,636

DECISION

The Examiner's rejection 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).

AFFIRMED