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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* ERICK TSENG

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Appeal 2017-011474  
Application 14/300,309<sup>1</sup>  
Technology Center 3600

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Before CARL W. WHITEHEAD JR., HUNG H. BUI, and  
ADAM J. PYONIN, *Administrative Patent Judges*.

BUI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant seeks our review under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–20, which are all the claims pending in the application. Claims App'x. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.<sup>2</sup>

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<sup>1</sup> According to Appellant, the real party in interest is Facebook, Inc. App. Br. 2.

<sup>2</sup> Our Decision refers to Appellant's Appeal Brief ("Br.") filed March 28, 2017; Examiner's Answer ("Ans.") mailed July 10, 2017; Final Office Action ("Final Act.") mailed October 13, 2016; and original Specification ("Spec.") filed June 10, 2014.

## STATEMENT OF THE CASE

Appellants' invention relates to "social networking systems" for "identifying advertisement content eligible for presentation to a social network system user" based on whether a physical location associated with the user satisfies the physical location specified by targeting criteria included in an advertisement request ("ad request"). Spec. ¶¶ 1, 5, Abstract.

Claims 1, 9, and 18 are independent. Representative claim 1 is reproduced below:

1. A method comprising:
  - maintaining a user profile for a user of a social networking system including a set of physical locations associated with the user, each physical location associated with a location type;
  - receiving an advertisement ("ad") request identifying an advertisement and targeting criteria, the targeting criteria identifying a physical location and identifying a minimum measure of ad quality for the user associated with each of one or more location types associated with the physical location;
  - identifying an opportunity to present advertisement content to the user;
  - determining that the user profile includes a physical location matching the physical location identified by the targeting criteria;
  - identifying the minimum measure of advertisement quality for the user from the targeting criteria that is associated with the location type of the matching physical location from the user profile;
  - determining a measure of ad quality for the user based at least in part on an affinity between the user profile and the advertisement; and
  - determining whether to include the ad request in a selection process with one or more additional ad requests based at least in part on the determined measure of ad quality and the

identified minimum measure of advertisement quality for the user.

App. Br. 12 (Claims App'x).

#### EXAMINER'S REJECTION

Claims 1–20 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to a patent-ineligible “abstract idea” without significantly more. Final Act. 3–5.

#### DISCUSSION

To determine whether subject matter is patent-eligible under § 101, the Supreme Court has set forth a two part test “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. Pty. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014). 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.* For computer-related technologies, “the first step in the *Alice* inquiry . . . asks whether the focus of the claims is on the *specific asserted improvement* in computer capabilities” (which would be eligible subject matter) or instead “on a process that qualifies as an ‘abstract idea’ for which *computers are invoked merely as a tool*” (which would be an ineligible concept). *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36, 1338 (Fed. Cir. 2016) (emphasis added). If the claims are directed to eligible subject matter, the inquiry ends. *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1349 (Fed. Cir. 2017).

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.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo* [*Collaborative Servs. v. Prometheus Labs., Inc.*], 566 U.S. [66], 78–79 [(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 72–73). “[W]ell-understood, routine, [and] conventional activit[ies]’ previously known to the industry” are insufficient to transform an abstract idea into patent-eligible subject matter. *Id.* at 2359 (quoting *Mayo*, 566 U.S. at 73).

In rejecting claims 1–20 under 35 U.S.C. § 101, the Examiner determines these claims are directed to the abstract idea of “utilizing user data and advertiser criteria to target advertisements” which is considered as “a fundamental economic practice” and includes limitations that are analogous to those discussed, for example, in *Cyberfone* and *CyberSource*. Final Act. 3–4 (quoting *Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App’x 988 (Fed. Cir. 2014) (holding that using categories to organize, store, and transmit information is an abstract idea); and *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011) (holding that obtaining and comparing intangible data is an abstract idea; method steps that can be performed in the human mind, or by a human using a pen and paper are also an abstract idea)).

The Examiner also determines the additional elements in the claims are not sufficient to amount to significantly more than the judicial exception because: (1) the claims are “described at a high level of generality and are recited as performing generic computer functions routinely used in computer application”; (2) “computer functions [] are well-understood, routine, and conventional functions”; and (3) “[t]here is no indication that the combination of elements improves the functioning of a computer or improves any other technology.” Final Act. 4–5.

*Alice/Mayo—Step 1 (Abstract Idea)*

Turning to the first step of the *Alice* inquiry, Appellant argues the claims are not directed to an abstract idea because the claims are directed to (1) “a specific method for selecting advertisement content for social networking system users based on types of location data associated with the users” and (2) relate to “a technological improvement over prior techniques for suggesting a product to a user.” App. Br. 5–7 (quoting *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)).

Appellant’s arguments are not persuasive. At the outset, we note Appellant’s reliance on *McRO* is misplaced. For example, *McRO*’s 576 patent (U.S. Patent No. 6,307,576) describes a computer software for matching audio to a 3D animated mouth movement to provide lip-synced animation. *McRO*’s claims contain (i) specific limitations regarding a set of rules that “define [] a morph weight set stream as a function of phoneme sequence and time of said phoneme sequence” to enable computers to produce “accurate and realistic lip synchronization and facial expressions in animated characters” (*McRO*, 837 F.3d at 1313) and, when viewed as a whole, are directed to (ii) a “technological improvement over the existing,

manual 3–D animation techniques” that uses “limited rules in a process specifically designed to achieve an improved technological result in conventional industry practice,” *McRO*, 837 F.3d at 1316.

In contrast to *McRO*, Appellant’s claims and Specification are directed to “social networking systems” and methods for “identifying advertisement content eligible for presentation to a social network system user” based on whether a physical location associated with the user satisfies the physical location specified by targeting criteria included in an advertisement request (“ad request”). Spec. ¶¶ 1, 5, Abstract.

Based on Appellant’s claims and Specification, we agree with the Examiner that the claims are directed to an abstract idea of “utilizing user data and advertiser criteria to target advertisements” which is considered as a “fundamental economic practice.” Final Act. 3–4. Such activities are squarely within the realm of abstract ideas. Target advertisement based on user data and advertiser criteria is a fundamental business practice prevalent in our system of commerce, like (1) the risk hedging in *Bilski v. Kappos*, 561 U.S. 593 (2010); (2) the intermediated settlement in *Alice*, 134 S. Ct. at 2356–57; (3) verifying credit card transactions in *CyberSource*, 654 F.3d at 1370; (4) guaranteeing transactions in *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354 (Fed. Cir. 2014); (5) distributing products over the Internet in *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014); (6) determining a price of a product offered to a purchasing organization in *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306 (Fed. Cir. 2015); and (7) pricing a product for sale in *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359 (Fed. Cir. 2015). Target advertisement based on user data and advertiser criteria is also a building block of a market economy and, like

risk hedging and intermediated settlement, is an “abstract idea” beyond the scope of § 101. *See Alice*, 134 S. Ct. at 2356.

Moreover, many of the steps recited in Appellant’s claims 1, 9, and 18 are only abstract processes of receiving, identifying, and analyzing information of a specific content, e.g., advertisement (“ad”) request and location information of a user. Information, as such, is intangible, and data analysis without more is also an abstract idea. *See, e.g., Microsoft Corp. v. AT & T Corp.*, 550 U.S. 437, 451 n.12 (2007); *Alice*, 134 S. Ct. at 2355; *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972). “[C]ollecting information, including when limited to particular content (which does not change its character as information),” and “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more,” are “within the realm of abstract ideas.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016); *see also Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1349 (Fed. Cir. 2015); *Digitech Image Techs., LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) (“Data in its ethereal, non-physical form is simply information that does not fall under any of the categories of eligible subject matter under section 101”).

Lastly, we note Appellant’s claims 1, 9, and 18 do not improve the performance of a computer or solve a problem specific to computers or computer networks. Appellant’s Specification and arguments do not demonstrate the claims “improve the way a computer stores and retrieves data in memory,” as the claims in *Enfish* did via a “self-referential table for a computer database.” *See Enfish*, 822 F.3d at 1336, 1339. Instead, as recognized by the Examiner, “the claims . . . [simply] uses computers as

tools” to perform “the concept of selecting advertisement content for users based on types of location data associated with the users.” Ans. 2 (emphasis omitted). The focus of Appellant’s invention is not to improve the performance of computers, but to use computers as a tool to implement business functions of receiving, identifying, and analyzing an advertisement request and location information of a user.

Accordingly, we agree with the Examiner that claims 1–20 are directed to an abstract idea of “utilizing user data and advertiser criteria to target advertisements” which is considered as a “fundamental economic practice.” Final Act. 3–4.

*Alice/Mayo—Step 2 (Inventive Concept)*

In the second step of the *Alice* inquiry, Appellant argues (1) “the specific claim limitations provide a concrete and unconventional application of the abstract idea” and (2) the claims contain an inventive concept like the claims in *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350, 1352 (Fed. Cir. 2016) because these claims “supply an unconventional application . . . by using a physical location, a social network, and a location type to determine, with high likelihood, if a user is currently associated with a given physical location.” App. Br. 8–9.

Appellant’s arguments are not persuasive. Appellant’s reliance on *Bascom* is, likewise, misplaced. For example, *Bascom* (U.S. Patent No. 5,987,606 (“*Bascom* ’606 patent”)) describes a particular arrangement of filtering software at a specific location, remote from the end-users, with customizable filtering features specific to each end user. The filtering software enables individually customizable filtering at the remote ISP server by taking advantage of the technical ability of the ISP server to identify

individual accounts and associate a request for Internet content with a specific individual account. *Bascom* '606 patent 4:35–38.

The Federal Circuit recognized that *Bascom*'s installation of an Internet content filter at a particular network location is “a technical improvement over prior art ways of filtering such content” because such an arrangement advantageously allows the Internet content filter to have “both the benefits of a filter on a local computer and the benefits of a filter on the ISP server” and “give[s] users the ability to customize filtering for their individual network accounts.” *Bascom*, 827 F.3d at 1350, 1352. According to the panel, *Bascom*'s claims “do not preempt the use of the abstract idea of filtering content on the Internet or on generic computer components performing conventional activities.” *Id.* Instead, *Bascom*'s claims “carve out a specific location for the filtering system (a remote ISP server) and require the filtering system to give users the ability to customize filtering for their individual network accounts.” *Id.* As such, “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Id.* at 1350.

In contrast to *Bascom*, Appellant's claims and Specification are directed to a method for “identifying advertisement content eligible for presentation to a social network system user” based on whether a physical location associated with the user satisfies the physical location specified by targeting criteria included in an advertisement request (“ad request”). Spec. ¶¶ 1, 5, Abstract; *see also* Spec ¶¶ 2–4, 12–14, 27, 36. There is no evidence in the record to support the contention that Appellant's claimed social network system is provided with any non-conventional and non-generic arrangement of known, conventional components.

According to *Alice*, 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.’” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 72–73). The most relevant Federal Circuit cases on point include (1) *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) and (2) *Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016). Both *DDR* and *Amdocs* involve business-centric inventions that are similar to Appellant’s invention.

For example, the Federal Circuit found *DDR*’s claims contain an “inventive concept” under *Alice* step 2 because *DDR*’s claims (1) do not merely recite “the performance of some business practice known from the pre-Internet world” previously disclosed in *Bilski* and *Alice*, but instead (2) provide a technical solution to a technical problem unique to the Internet, *i.e.*, a “solution . . . necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR*, 773 F.3d at 1257. Likewise, the Federal Circuit also found *Amdocs*’ claims contain a sufficient “inventive concept” because like *DDR*, *Amdocs*’ claims “entail[] an unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases)” and “improve the performance of the system itself.” *Amdocs*, 841 F.3d at 1300, 1302.

In contrast to *DDR* and *Amdocs*, Appellant’s invention does not provide a technical solution to a technical problem unique to the Internet, *i.e.*, a “solution . . . necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.”

*DDR*, 773 F.3d at 1257. Nor does Appellant’s invention entail, like *Amdocs*, any “unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases)” and “improve the performance of the system itself.” *Amdocs*, 841 F.3d at 1300, 1302. As such, we find no element or combination of elements recited in Appellant’s claims 1, 8, and 19 that contains any “inventive concept” or adds anything “significantly more” to transform the abstract concept into a patent-eligible application. *Alice*, 134 S. Ct. at 2357. Instead, we agree with the Examiner that the additional elements recited in Appellant’s claims 1, 9, and 18 (e.g., a social networking system and processor) do not transform the abstract idea into a patent eligible invention. As our reviewing court has observed, “after *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.” *DDR*, 773 F.3d at 1256 (citing *Alice*, 134 S. Ct. at 2358).

Because Appellant’s claims 1, 8, and 19 are directed to a patent-ineligible abstract concept and does not recite something “significantly more” under the second prong of the *Alice* analysis, we sustain the Examiner’s rejection of claims 1–20 under 35 U.S.C. § 101.

## CONCLUSION

On the record before us, we conclude Appellant has not demonstrated the Examiner erred in rejecting claims 1–20 under 35 U.S.C. § 101.

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DECISION

As such, we AFFIRM the Examiner's final rejection of claims 1–20 under 35 U.S.C. § 101.

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