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KHATTAR, RAJESH

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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* DANG MINH VO, RAJEEV D. RAJAN,  
JOSE RICARDO DOS SANTOS, KAMRAN MOALLEMI,  
MANUEL E. JAIME, and MICHAEL JAMES KOENIG

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Appeal 2016-007250<sup>1</sup>  
Application 12/124,834<sup>2</sup>  
Technology Center 3600

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Before HUBERT C. LORIN, MATTHEW S. MEYERS, and  
ALYSSA A. FINAMORE, *Administrative Patent Judges*.

FINAMORE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellants appeal from the Examiner's decision to reject claims 1–48, 80, 81, and 83. We have jurisdiction under § 6(b). We AFFIRM.

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<sup>1</sup> Our Decision references Appellants' Specification filed May 21, 2008 ("Spec."), Appeal Brief filed November 19, 2015 ("Appeal Br."), and Reply Brief filed July 19, 2016 ("Reply Br."), as well as the Examiner's Answer mailed May 25, 2016 ("Ans.") and Final Office Action mailed June 22, 2015 ("Final Act.").

<sup>2</sup> Appellants identify QUALCOMM Incorporated as the real party in interest. Appeal Br. 3.

SUBJECT MATTER ON APPEAL

The invention “relates generally to a mobile operating environment, and more particularly to providing mobile coupons to a mobile device based on peer to peer ranging techniques.” Spec. ¶ 3. Claims 1, 21, 41, 42, and 48 are the independent claims on appeal. Independent claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method of wireless communication, comprising:
  - establishing, with a wireless communications interface component of a first device, a wireless peer-to-peer connection between the first device and a mobile device;
  - determining a distance between the first device and the mobile device based upon wireless signals exchanged by the wireless communications interface component between the first device and the mobile device over the wireless peer-to-peer connection;
  - determining whether the distance is equal to or less than at least one distance threshold, wherein the at least one distance threshold is a defined distance value that is shorter than an effective communication range of the wireless peer-to-peer connection; and
  - associating a dynamic mobile coupon (DMC) with the mobile device based at least in part on the at least one distance threshold determination.

REFERENCES

The Examiner relies on the following prior art in rejecting the claims on appeal:

Lerat	US 2002/0010627 A1	Jan. 24, 2002	
Leung et al.	US 2003/0093314 A1	May 15, 2003	(“Leung”)
Chithambaram	US 2004/0156326 A1	Aug. 12, 2004	
Fajkowski	US 2005/0230473 A1	Oct. 20, 2005	

Mgrdechian et al. US 2009/0164309 A1 June 25, 2009 (“Mgrdechian”)  
Lutnick et al. US 2013/0006773 A1 Jan. 3, 2013 (“Lutnick”)

## REJECTIONS

The Examiner rejects the claims on appeal as follows:

- I. claims 1–48, 80, 81, and 83 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement;
- II. claims 1–48, 80, 81, and 83 under 35 U.S.C. § 101 as directed to non-statutory subject matter;
- III. claims 1–8, 10, 12–28, 30, 32–48, 80, and 81 under 35 U.S.C. § 103(a) as unpatentable over Mgrdechian, Lutnick, and Leung;<sup>3</sup>
- IV. claims 9, 11, 29, and 31 under 35 U.S.C. § 103(a) as unpatentable over Mgrdechian, Lutnick, Leung, and Official Notice as evidenced by Lerat and Fajkowski; and
- V. claim 83 under 35 U.S.C. § 103(a) as unpatentable over Mgrdechian, Lutnick, Leung, and Chithambaram.

## ANALYSIS

### *Rejection I*

In rejecting the claims under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement, the Examiner finds the disclosure does not provide support for the limitation reciting

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<sup>3</sup> The heading of this rejection does not reference claims 80 and 81 (Final Act. 4), but the body of the rejection includes an analysis of these claims (*id.* at 10). As such, we understand that the rejection includes claims 80 and 81, and that the omission of these claims from the heading is an oversight.

“wherein the at least one distance threshold is a defined distance value that is shorter than an effective communication range of the wireless peer-to-peer connection,” as recited in each of independent claims 1, 21, 41, 42, and 48. Final Act. 2–3. In contrast, Appellants argue that the Specification’s description of a tiered set of distance thresholds provides support for this limitation. Appeal Br. 6–8 (citing Spec. ¶¶ 39, 70). In particular, Appellants assert:

Hence, in the example where the discounts include a “50 cent discount when within 10 meters, 25 cent discount when within 20 meters, 10 cent discount when within 30 meters” [(Spec. ¶ 39)], the effective communication range of associated P2P connections is, by implication, at least 30 meters. So, at least the distance thresholds of 10 meters and 20 meters can be considered to be “shorter than an effective communication range of the wireless peer-to-peer connection.”

*Id.* at 7. Appellants’ argument is not persuasive.

The test for sufficiency of the written description requirement is “whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the *claimed subject matter* as of the filing date.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (emphasis added) (citations omitted). As such, claim construction is important to the written description analysis. *In re Katz Interactive Cell Processing Patent Litig.*, 639 F.3d 1303, 1319 (Fed. Cir. 2011).

Here, the limitation at issue specifically describes the distance threshold. Namely, the limitation requires the distance threshold is a defined value that is shorter than an effective communication range of the wireless peer-to-peer connection. Although paragraphs 39 and 70 describe a distance threshold as a defined value, e.g., 10 meters, 20 meters, or 30 meters, there is

no description of these values relative to the effective communication range of the wireless peer-to-peer connection. Furthermore, we disagree with Appellants that a person of ordinary skill would imply that all of the tiered distance thresholds are distance values within the effective communication range of the wireless peer-to-peer connection because the cited portions of the Specification do not describe the effective communication range of the connection. *See also* Ans. 2–3 (“[T]he [S]pecification does not disclose or teach . . . determining that the effective range of associated P2P connections is 30 meters. The effective communication range depends on signal strength which could vary and may depend on whether the devices are located in the high/low interference area.”). Consequently, the cited portions of the Specification do not reasonably convey to those skilled in the art that, as of the filing date, the inventors had possession of the claimed subject matter, including a distance threshold being a defined value that is shorter than an effective communication range of the wireless peer-to-peer connection, as recited in the limitation at issue.

In view of the foregoing, Appellants do not apprise us of error in the Examiner’s finding that the limitation at issue lacks support in the disclosure. We, therefore, sustain the rejection of claims 1–48, 80, 81, and 83 under 35 U.S.C. § 112, first paragraph.

### *Rejection II*

An invention is patent eligible if it is a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[I]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) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

To “distinguish[] patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts,” the Supreme Court, in *Alice*, reaffirmed the two-step analysis previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012). *Alice*, 134 S. Ct. at 2355. The first step of this analysis considers whether a claim is directed to a patent-ineligible concept, e.g., an abstract idea. *Id.* (citing *Mayo*, 566 U.S. at 77). If so, the second step considers whether the claim recites an inventive concept—an element or combination of elements sufficient to ensure the claim amounts to significantly more than the abstract idea and transform the nature of the claim into a patent-eligible application. *Id.* (citing *Mayo*, 566 U.S. at 72–73, 78, 79).

In rejecting the claims under 35 U.S.C. § 101 as directed to non-statutory subject matter, i.e., patent ineligible, the Examiner analyzes the claims using this two-step framework. Final Act. 3–4. Pursuant to the first step, the Examiner determines the claims are directed to the abstract idea of “targeting advertisement based on location parameters,” which is a fundamental economic practice and, therefore, an abstract idea. *Id.* at 3. The Examiner also determines a dynamic mobile coupon is an advertisement (*id.* at 13) such that the claims are similarly directed to the abstract idea of “associating a coupon based on one distance threshold determination,” which is a commercial arrangement involving contractual relations similar to the fundamental economic practices the courts have held to be abstract ideas,

such as hedging in *Bilski*<sup>4</sup> and mitigating settlement risks in *Alice* (*id.* at 14). Under the second step, the Examiner determines the claims do not recite significantly more than the abstract idea because the additional elements of the claims, alone or in combination, amount to no more than mere instructions to implement the abstract idea on a computer and recitations of generic computer structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities. Final Act. 3–4.

Appellants argue claims 1–48, 80, 81, and 83 as a group. Appeal Br. 9–17; Reply Br. 4–6. We select independent claim 1 as representative, and the remaining claims of the group stand or fall with independent claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

Appellants argue the Examiner erred in determining what independent claim 1 is directed to under the first step of the *Alice* analysis. Appeal Br. 9–10, 16; Reply Br. 4–6. In particular, Appellants assert “targeting advertisement based on location parameters” and “associating a coupon based on one distance threshold determination” ignore the majority of the claim language and overgeneralize the claim. Appeal Br. 9–10, 16; Reply Br. 4–6. Appellants’ arguments are not convincing.

In determining whether a claim is directed to excluded subject matter, e.g., an abstract idea, 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. v. Active Network*,

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<sup>4</sup> *Bilski v. Kappos*, 545 F.3d 943 (Fed. Cir. 2008).

*Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). For computer-implemented inventions in particular, such as the present invention, “the first step in the *Alice* inquiry . . . asks whether the focus of the claims is on the 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.

Here, independent claim 1 recites steps that enable a dynamic mobile coupon (DMC) to be associated with a mobile device based on a determination that the distance between a first device and the mobile device is equal to or less than a distance threshold that is a defined distance value shorter than an effective communication range of a wireless peer-to-peer connection between the mobile device and the first device. More simply put, the claimed invention provides coupons based on distance.

The Specification similarly describes that the claimed invention improves couponing by issuing coupons for nearby retailers to increase the coupons’ appeal. Namely, the Specification describes:

[S]ending a coupon to be redeemed at a particular store can be of low contemporaneous value if no such store is near to a recipient device. Accordingly, having particular dynamic information associated with consumer mobile devices can be helpful in influencing buying decisions and/or providing additional value to the consumer.

Spec. ¶ 6.

Independent claim 1 also recites a method of wireless communication involving a first device, a mobile device, a wireless communications interface component of a first device, and a wireless peer-to-peer communication between the first device and the mobile device. The

Specification, however, does not describe an improvement to the wireless communication technology.

Accordingly, the claimed invention implements a process for providing targeted coupons based on distance in a wireless communications environment. The focus of the claimed invention is not on the wireless communications environment or the computing components associated therewith, but rather on a process for providing targeted coupons, for which the computing components of the wireless communications environment are invoked merely as tools to implement the process. The character of independent claim 1 as a whole is directed to providing targeted coupons based on distance, which is a fundamental economic practice similar to the concept of tailoring content based on a user's location in *Intellectual Ventures I, LLC v. Capital One Bank (USA), N.A.*, 792 F.3d. 1363, 1369–70 (Fed. Cir. 2015), and, therefore, an abstract idea.

Turning to Appellants' arguments under the second step of the *Alice* analysis, Appellants submit that independent claim 1 is patent eligible in accordance with the Office's streamlined eligibility analysis procedure because it is self-evident that the claim does not tie up the use of the abstract idea. Appeal Br. 10–11 (citing *2014 Interim Guidance on Patent Subject Matter Eligibility*, 79 Fed. Reg. 74618 (Dec. 16, 2014); *July 2015 Update: Subject Matter Eligibility*, <https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf>), 15. Appellants' argument is not persuasive of error.

As set forth in the Office's guidance, "a streamlined eligibility analysis *can be used* for a claim that may or may not recite a judicial exception but, when viewed as a whole, clearly does not seek to tie up any

judicial exception such that others cannot practice it.” *2014 Interim Guidance*, 79 Fed. Reg. at 74625 (emphasis added). The Office’s guidance, therefore, does not require a streamlined eligibility analysis for a claim that recites a judicial exception. Moreover, although preemption may be the concern driving the exclusion of abstract ideas from patent-eligible subject matter, preemption is not the test for eligibility. “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability. For 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) (citation omitted); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir.), *cert. denied*, 136 S. Ct. 701 (2015) (“And that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”).

Appellants also argue that certain claim limitations are not well-understood, routine, and conventional activities. Appeal Br. 12–13, 16. In particular, Appellants assert

the Examiner has not established that the claim features of “determining a distance between the first device and the mobile device based upon wireless signals exchanged by the wireless communications interface component between the first device and the mobile device over the wireless peer-to-peer connection”, “determining whether the distance is equal to or less than at least one distance threshold, wherein the at least one distance threshold is a defined distance value that is shorter than an effective communication range of the wireless peer-to-peer connection” and “associating a dynamic mobile coupon (DMC) with the mobile device based at least in part on the at least one distance threshold determination” as recited in independent

claim 1 . . . are “well-understood, routine and conventional” that could be performed by a “generic computer.”

*Id.* at 13. Appellants’ argument is not convincing for the reasons the Examiner provides in the Answer. Ans. 9–10.

Namely, Appellants conflate the conventionality of the steps being performed by computing components and the conventionality of the computer functions required to implement the steps. With respect to the latter, the Examiner determines, and we agree, that the implementation requires nothing more than generic computer components performing generic computer functions that are well-understood, routine, and conventional activities, such as receiving, analyzing, and transmitting data. Final Act. 3; Ans. 9–10; *see also* Spec. ¶ 47 (“[T]he various illustrative logics, logical blocks, modules, and circuits described in connection with the aspects disclosed herein can be implemented or performed with a general purpose processor.”).

Appellants further argue that, similar to the patent-eligible claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), the claimed invention solves the Internet-centric problem of wirelessly transmitting coupons to nearby consumers. Appeal Br. 14. Appellants’ argument does not apprise us of error.

In *DDR Holdings*, the court contrasted the claims from those in *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014), which are directed to a method of advertising and distributing content over the Internet. 773 F.3d at 1258–59. In doing so, the court explained that “[u]nlike the claims in *Ultramercial*, the claims at issue here 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.* at 1258.

Here, independent claim 1 does not specify how the wireless peer-to-peer communication is manipulated to provide coupons based on distance such that the claimed invention departs from conventional wireless peer-to-peer communications. Consequently, although the claimed invention involves a wireless communication environment, the claimed invention does not address a challenge unique to wireless communications. Rather, in contrast to the claims in *DDR Holdings*, the claimed invention solves the business challenge of how to increase the effectiveness of coupons and applies the solution in a wireless communications environment, which is not sufficient for patent eligibility. *See DDR Holdings*, 773 F.3d at 1256 (“[T]hese claims [of prior cases] in substance were directed to nothing more than the performance of an abstract business practice on the Internet or using a conventional computer. Such claims are not patent-eligible.”); *see also Alice*, 134 S. Ct. at 2358 (explaining that limiting the use of an abstract idea to a particular technological environment is not sufficient for patent eligibility).

In view of the foregoing, Appellants do not apprise us of error in the Examiner’s determination that independent claim 1 is patent-ineligible. Accordingly, we sustain the rejection of independent claim 1 under 35 U.S.C. § 101, with claims 2–48, 80, 81, and 83 falling therewith.

### *Rejection III*

In rejecting independent claim 1 under 35 U.S.C. § 103(a), the Examiner finds Mgrdechian discloses the invention substantially as claimed,

except for the steps of “determining whether the distance is equal to or less than at least one distance threshold, wherein the at least one distance threshold is a defined distance value that is shorter than an effective communication range of the wireless peer-to-peer connection” and “associating a dynamic mobile coupon (DMC) with the mobile device based at least in part on the at least one distance threshold determination.”

Final Act. 4–5. For the former step, the Examiner relies on Lutnick, and for the latter, the Examiner relies on Leung. *Id.* at 5–6. The Examiner makes a similar rejection of independent claims 21, 41, 42, and 48. *Id.* at 11.

Appellants argue that Mgrdechian’s device-to-device in-range detection set forth in paragraphs 43 and 72 does not disclose “determining a distance between the first device and the mobile device based upon wireless signals exchanged by the wireless communications interface component between the first device and the mobile device over the wireless peer-to-peer connection” as recited in independent claim 1 and similarly recited in independent claims 21, 41, 42, and 48, because range is not distance. Appeal Br. 17–19; Reply Br. 6–8. Although paragraphs 43 and 72 may disclose device-to-device in-range detection, paragraph 43 also discloses “the general case where relative positions, ranges or *distances* of mobile devices are established via direct or peer-to-peer communications, uploaded to a central server via a cellular or other network and used to facilitate communications or provide other data to be used in any way whatsoever” (emphasis added). Consequently, Appellants do not apprise us of error in the Examiner’s finding that Mgrdechian discloses this limitation of the independent claims.

We are similarly unpersuaded by Appellants' argument that Mgrdechian's in-range detection is not applicable to Lutnick's distance-based calculation methodologies such that the combined teachings of Mgrdechian and Lutnick would not result in "determining whether the distance is equal to or less than at least one distance threshold, wherein the at least one distance threshold is a defined distance value that is shorter than an effective communication range of the wireless peer-to-peer connection," as recited in independent claim 1 and similarly recited in independent claims 21, 41, 42, and 48. Appeal Br. 19–22; Reply Br. 8–9. As set forth above, Mgrdechian expressly discloses establishing the relative positions, ranges, or distances of mobile devices and uploading them to a central server. Mgrdechian ¶ 43. Appellants' argument focuses on Mgrdechian's in-range detection and does not address this disclosure of determining a distance between mobile devices. Consequently, Appellants do not apprise us of error in the Examiner's determination that the combined teachings of Mgrdechian and Lutnick would result in this limitation of the independent claims.

Appellants also assert that Leung fails to cure the deficiencies of Mgrdechian and/or Lutnick. Appeal Br. 22–24. As set forth above, however, Appellants do not apprise us of any deficiency, so Appellants' argument is inapposite.

In view of the foregoing, Appellants do not apprise us of error in the Examiner's rejection of independent claims 1, 21, 41, 42, and 48. Appellants do not present arguments for dependent claims 2–8, 10, 12–20, 22–28, 30, 32–40, 43–47, 80, and 81 apart from the independent claims.

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Appeal Br. 24. We, therefore, sustain the rejections of claims 1–8, 10, 12–28, 30, 32–48, 80, and 81 under 35 U.S.C. § 103(a).

*Rejections IV and V*

With respect to the rejections of dependent claims 9, 11, 29, 31, and 83, Appellants argue that none of Lerat, Fajkowski, and Chithambaram cures the deficiency in the rejection of the independent claims. Appeal Br. 24–25. As set forth above, Appellants do not apprise us of any deficiency, so Appellants' argument is inapposite. Accordingly, we sustain the rejections of claims 9, 11, 29, 31, and 83 under 35 U.S.C. § 103(a).

DECISION

The Examiner's decision to reject claims 1–48, 80, 81, and 83 under 35 U.S.C. § 112, first paragraph, is affirmed.

The Examiner's decision to reject claims 1–48, 80, 81, and 83 under 35 U.S.C. § 101 is affirmed.

The Examiner's decision to reject claims 1–48, 80, 81, and 83 under 35 U.S.C. § 103(a) 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). 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED