UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JUSTIN X. HOWE

Appeal 2016-008605[1]
Application 13/969,839
Technology Center 3600

Before ELENI MANTIS MERCADER, NORMAN H. BEAMER, and ADAM J. PYONIN, *Administrative Patent Judges*.

PYONIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–28, which are all of the pending claims. *See* App. Br. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] MasterCard International Incorporated is identified as the real party in interest. *See* App. Br. 2.

STATEMENT OF THE CASE

Appellant's disclosure relates to "mapping of merchant locations, specifically the use of payment data and geolocation data of mobile devices to generate a map of merchant locations." Spec. ¶ 1. Claims 1 and 15 are independent. Claim 1 is reproduced below for reference (with emphasis added):

> 1.   A method for mapping merchant boundaries, comprising:
>
> storing, in a transaction database of a processing server, a plurality of transaction data entries transmitted from a payment network, wherein each transaction data entry includes data related to a payment transaction from a payment server including at least a merchant identifier, a consumer identifier, and a transaction time and date;
>
> identifying, in the transaction database of the processing server, a subset of transaction data entries, wherein each transaction data entry in the subset of transaction data entries includes a common merchant identifier;
>
> receiving, by the processing server, for each transaction data entry in the identified subset of transaction data entries, a geographic location of a mobile communication device associated with the respective included consumer identifier temporally proximal to the respective included transaction time and date from a mobile device; and
>
> *generating, by the processing device, a boundary map for a merchant associated with the common merchant identifier* based on the geographic locations received from the mobile device for each transaction data entry in the identified subset of transaction data entries, *wherein the boundary map is a map of geographic bounds of the physical location of the merchant associated with the common merchant identifier.*

The Examiner's Rejections

R1:   Claims 1–28 stand rejected under 35 U.S.C. § 112(a) as failing to comply with the written description requirement. Final Act. 8.

R2:   Claims 1–28 stand rejected under 35 U.S.C. § 112(a) as being indefinite. Final Act. 9–10.

R3:   Claims 1–28 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 11.

R4:   Claims 1–11, 13–25, 27, and 28 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ramalingam (US 2011/0238517 A1; Sept. 29, 2011), Cho (US 2010/0198626 A1; Aug. 5, 2010), and Fiedler (US 6,883,708 B1; Apr. 26, 2005). Final Act. 14.

R5:   Claims 12 and 26 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ramalingam, Cho, Fiedler, and Gibson (US 6,198,431 B1; Mar. 6, 2001). Final Act. 25.

ANALYSIS

A.   Rejection R1: Written Description

Appellant argues the Examiner erred in the written description rejection of claims 1–28 because the disclosure "sufficiently describes how the entries are used to create the boundary map utilizing a mobile network operator, a payment network, and a processing server." App. Br 7; *see* App. Br. 7–8, quoting Spec. ¶¶ 33–37. According to Appellant, the "shape of the boundary map is not important to the inventive concept" and "is not even recited in the claims." App. Br. 6.

We are persuaded by Appellant's arguments. To satisfy the written description requirement, the disclosure must reasonably convey to skilled artisans that Appellant possessed the claimed invention as of the filing date. *See Ariad Pharms., Inc. v. Eli Lilly & Co.,* 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Specifically, the description must "clearly allow

persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed" and

> the test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed.

Id. (internal quotations and citations omitted).

We agree with Appellant that the disclosure demonstrates Appellant possessed the claimed invention at the time of filing. Particularly, the Specification describes expanding from an identified merchant centroid to determine boundaries for the merchant, and the drawings display determined boundaries for the merchants. *See* Spec ¶ 42 and Figures 4A–4D. We find such disclosure provides written description support for the claims.

Accordingly, we do not sustain the Examiner's written description rejection of claims 1–28.

B.   *Rejection R2: Indefiniteness*

The Examiner finds three separate claim limitations are indefinite pursuant to 35 U.S.C. 112(b). *See* Final Act. 10–11. We address each determination below.

The Examiner first states "[i]t is unclear to the Examiner how a boundary map is generated," in rejecting independent claims 1 and 15 as indefinite. Final Act. 10. Appellant argues the Examiner erred for the same reasons discussed by Appellant with respect to the written description rejection. App. Br. 11; *see* App. Br. 6–9. We agree, for substantially the reasons described above, that one skilled in the art would understand the

metes and bounds of the claimed "boundary map" when the claims are read in light of the specification.

The Examiner next states "[i]t is unclear to the Examiner how a 'merchant identifier' and a 'common merchant identifier' are different from one another," in rejecting independent claims 1 and 15 as indefinite. Final Act. 10. Appellant argues the Examiner erred because the terms "merchant identifier" and a "common merchant identifier" are satisfactorily described in the specification. *See* App. Br. 11–12 (quoting Spec ¶ 36). We find that one skilled in the art, having read the disclosure, would understand the meaning of both (1) a "merchant identifier" as "a unique value associated with a merchant" (*see* Spec. ¶ 27), and (2) a "common merchant identifier" as a merchant identifier that is common to a set of multiple transactions. *See* Spec. ¶ 30.

The Examiner additionally states that "[i]t is unclear to the Examiner how a first merchant boundary can overlap a second merchant boundary" in rejecting dependent claims 4 and 18 as indefinite. Final Act. 11. Appellant argues the Examiner erred, because one skilled in the art would understand the disclosure's description of "corresponding geolocation data" as initially leading to overlapping borders which can "benefit from trimming." App. Br. 12 (quoting Spec. ¶¶ 42, 49). We agree with Appellant, and find that one skilled in the art, having read the disclosure, would understand that boundaries based on geolocation data may overlap, and thus would understand the metes and bounds of claims 4 and 18.

Accordingly, we do not sustain the Examiner's indefiniteness rejections of claims 1–28.

C.   *Rejection R3: Non-Statutory Subject Matter*

Appellant argues the Examiner erred in concluding claims 1–28 are patent-ineligible, because "the Patent Office has omitted significant portions of the claim from its characterization" whereas "[t]he inventors have addressed a technical problem where it is not clear what the geographic boundaries for a particular merchant may be" and the inventors have "arrive[d] at a technical solution for this problem." Reply Br. 6.

We are not persuaded the Examiner erred. An invention is patent-eligible if it claims 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: laws 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). The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1300 (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 Corp.*, 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," e.g., to an abstract idea. *Alice Corp.*, 134 S. Ct. at 2355. If the claims are directed to a patent-ineligible concept, 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." *Alice Corp.*, 134 S. Ct. at 2355 (quoting Mayo, 132 S. Ct. at 1297).

The Court acknowledged in *Mayo* that "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 132 S. Ct. at 1293. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology, or instead are directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

Here, we agree with the Examiner that the claims are directed to "the abstract concept of collecting, recognizing, and storing data because the claims are merely collecting location data points to recognize a boundary map" and the claims are "organizing the data with relation to transaction data involving merchant identifiers." Ans. 26. Claim 1 is directed to a method for mapping merchant boundaries (*see, e.g.*, Spec. ¶¶ 6–7), and our reviewing court has held claims similarly directed to certain methods of collecting and organizing information to be abstract ideas.[2] We also agree with the Examiner that the claims "as a whole, do not amount to significantly more than the abstract idea itself" and do not "qualify as significantly more [than] the judicial exception." Ans. 28. Rather than

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[2] *See, e.g., Move, Inc. v. Real Estate Alliance Ltd.*, 2018 WL 656377, *3 (Fed. Cir. 2018 (nonprecedential)) ("a method for collecting and organizing information about available real estate properties and displaying this information on a digital map that can be manipulated by the user" is abstract); *Elec. Power Grp. LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) ("collecting information, analyzing it, and displaying certain results of the collection and analysis" is abstract); *Digitech Image Technologies, LLC v. Electronics for Imaging*, 758 F.3d 1344, 1350 (Fed. Cir. 2014) ("a process of organizing information through mathematical correlations and is not tied to a specific structure or machine" is abstract).

addressing a technical problem, the claimed method is used to display regions in which mobile device users appear to have consummated purchases. *See* Spec. ¶ 12 and Figures 4A–4D. That such processes may be performed more efficiently by a computer does not "'transform the nature of the claim' into a patent-eligible application." *Alice Corp.*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1297); *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096 (Fed. Cir. 2016) ("[T]he use of generic computer elements like a microprocessor or user interface do not alone transform an otherwise abstract idea into patent-eligible subject matter.").

Appellant's arguments focus on the "payment network" and the "receipt of transaction data entries from the payment network" as making the claims "'necessarily rooted' in a particular technology" and similar to the claims found statutory in *DDR Holdings v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) (*see* App. Br. 16–18, 20–23; Reply Br. 12–14). We do not find the present claims analogous to those in *DDR Holdings*. In *DDR Holdings*, the claims "do not broadly and generically claim 'use of the Internet' to perform an abstract business practice (with insignificant added activity)." *DDR Holdings* at 1258. Here, in contrast, the claims use a computer network to perform an abstract business practice, that of mapping merchant boundaries, with little or no added activity. The problem addressed by the claims, that of mapping merchant boundaries, is not rooted in computer technology. *See* Spec ¶ 3. Nor does recitation of a "payment network" place the claims into the realm of computer technology as the claimed invention solves no problem involving the structure or functions of the payment network.

We also agree with the Examiner that the claims "recite a database, receiving device, a processing server, and a mobile device; however, these elements merely facilitate the claimed functions at a high level of generality and they perform conventional functions." Ans. 27. Thus, these claimed elements do not place the claims into the realm of computer technology.

Accordingly, we are not persuaded the Examiner erred in determining independent claim 1 is patent-ineligible pursuant to the two-part *Alice* test. *See* Final Act. 11–13. We sustain the Examiner's 35 U.S.C. § 101 rejection of independent claim 1, as well as independent claim 15 not separately argued, and all claims which depend therefrom and are not separately argued. *See* App. Br. 27.

D. Rejection R4: Obviousness

Appellants argue the Examiner erred in the rejection of independent claim 1, because "Ramalingam . . . discloses a map which is already stored on the server and which contain[s] geolocations of merchants" (App. Br. 28; *see* Ramalingam ¶ 44) and Cho's "heat map is not a boundary map" (App. Br. 29; *see* Cho Abstract). Appellants further contend Cho's "preferred service providers" are provided on pre-existing maps. App. Br. 29.

We are persuaded by Appellant's arguments. The Examiner finds Ramalingam teaches a "*transaction module may recognize when the mobile device . . . is located at a merchant location.*" *See* Final Act. 15 (quoting Ramalingam ¶ 35). The Examiner also finds Cho's heat map teaches the claimed "generating, by a processing device, a boundary map for a merchant, <u>wherein the boundary map is a map of geographic bounds of the physical location of the merchant</u>." Final Act. 16 (emphasis added) (citing

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Cho Figures 7–8 and ¶¶ 13, 66, 73). Cho's heat map, however, is superimposed on a pre-existing map that delineates the geographic boundaries of the physical location of the merchants. *See* Cho Figure 7. That is, the references use an *existing* map, rather than creating a map.

Thus, Ramalingam and Cho, when combined, do not "generat[e], by the processing device, a boundary map," as required by claim 1. The Examiner does not rely on Fiedler or Gibson for this limitation. We reverse the Examiner's obviousness rejection of independent claim 1 and independent claim 15 commensurate in scope, as well as the claims that depend therefrom.

DECISION

The Examiner's decision rejecting claims 1–28 under 35 U.S.C. § 112(a) is reversed.

The Examiner's decision rejecting claims 1–28 under 35 U.S.C. § 112(b) is reversed.

The Examiner's decision rejecting claims 1–28 under 35 U.S.C. § 101 is affirmed.

The Examiner's decision rejecting claims 1–28 under 35 U.S.C. § 103 is reversed.

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