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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PATRICK ALLAN MCDEVITT, G. DUANE GEARHART, and
JOHN PATRICK O'DWYER

Appeal 2019-003889¹
Application 13/714,185
Technology Center 3600

Before, ANTON W. FETTING, JOSEPH A. FISCHETTI, and
BIBHU R. MOHANTY, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1, 3–8, 17, 19–24, 26, and 28–36. We have jurisdiction under 35 U.S.C. § 6(b).

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies Verizon Communications Inc. as the real party in interest. Appeal Br. 3.

SUMMARY OF DECISION

We reverse and enter a new grounds of rejection under 37 C.F.R. § 41.50(b).

THE INVENTION

Appellant states “[t]he present disclosure relates generally to systems and methods for advertising.” Spec. ¶ 2.

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A method, comprising:
querying, by a device, one or more databases to generate a set of intersections on a map,
the set of intersections including information related to:
traffic volume data,
frequency of use, and
demographic information;
analyzing, by the device, at least one of:
the traffic volume data,
the frequency of use, or
the demographic information associated with the set of intersections to identify a plurality of target intersections in the set of intersections for a navigated route;
identifying, by the device and based on the plurality of target intersections, a set of landmark locations;
detecting, by the device, at least one target intersection of the plurality of target intersections in a route requested by a user device of a user;
receiving, by the device, GPS signals from a GPS system for determining a location of the user device;
determining, by the device, that the user device is within a predetermined distance to the at least one target intersection of the plurality of target intersections in the route requested by the user device of the user;
auctioning, by the device, an advertisement space to a plurality of advertisers for presenting an advertisement associated with at least one landmark location, of the set of

landmark locations, associated with the route that includes the at least one target intersection;

receiving, by the device and based on detecting the at least one target intersection, a request from at least one advertiser of the plurality of advertisers to reference at least one landmark location associated with the at least one advertiser, of the set of landmark locations, in association with a particular guidance maneuver of a plurality of guidance maneuvers, the plurality of guidance maneuvers being associated with the route requested by the user device of the user, the at least one advertiser offering a highest bid for the advertisement space; and

providing, by the device for display on the user device of the user and responsive to receiving the request from the at least one advertiser, the plurality of guidance maneuvers and the advertisement, the advertisement being provided for display in association only with the particular guidance maneuver, and the advertisement being provided in relation to directions from the particular guidance maneuver to the at least one landmark location.

THE REJECTION

The Examiner relies upon the following as evidence of unpatentability:

Weiland et al.	US 2005/0004753 A1	Jan. 6, 2005
Grace	US 2007/0078596 A1	Apr. 5, 2007
Jones et al.	US 2007/0143345 A1	June 21, 2007
Ramer et al.	US 2009/0234711 A1	Sept. 17, 2009

The following rejections are before us for review.

Claims 1, 3–8, 17, 19–24, 26, and 28–33 are rejected under pre-AIA 35 U.S.C. § 103 as being unpatentable over Grace, Jones, and Ramer. Final Act. 6–12.

Claims 34–36 are rejected under pre-AIA 35 U.S.C. § 103 as being unpatentable over Grace, Jones, Ramer, and Weiland. Final Act. 12.

35 U.S.C. § 103(a) REJECTION

Each of independent claims 1, 17, and 26 recites in pertinent part,

analyzing, by the device, at least one of:
the traffic volume data,
the frequency of use, or
the demographic information associated with the set of intersections to identify a plurality of target intersections in the set of intersections for a navigated route;
identifying, by the device and based on the plurality of target intersections, a set of landmark locations.

Claim 1.

The Examiner found, concerning these limitations that Grace discloses, the following:

Grace et al. teaches ranking “landmark locations” based on “how frequently users in the class visit the landmark” in at least [0035] while Jones et al. “teaches the ranking of ‘geo-spatial entities’ for the purposes of determining and displaying advertising in [0021] and [0022] wherein ‘geo-spatial entities’ includes road information as taught in [0023] and including demographic data in at least [0038]”. Thus, applying the techniques of Grace with respect to “landmark locations” to an intersection would have been obvious to one of ordinary skill in the art because Jones applies a similar technique to a variety of “geospatial entities”.

(Ans. 3).

Appellant argues the following:

GRACE et al. makes no mention of analyzing intersections (i.e., “analyzing the set of intersections to identify a plurality of

target intersections in the set of intersections for a navigated route”). Accordingly, cited sections in GRACE et al. does not disclose to “ranking of intersections themselves,” as cited in amended claim 1.

(Appeal Br. 34).

Appellant submits that “ranking geospatial entities for the purposes of displaying the entities on a map according to rank” as cited in paragraphs 0021 and 0023\2 of JONES et al. is not the same as “identifying a plurality of intersections from a set of intersections along a navigated route,” as recited in independent claim 1. Rather, JONES et al. relates to “displaying the entities according to rank” (paragraph 0021 of JONES et al.). According, JONES et al. does not make up for the foregoing deficiencies of GRACE et al.

(Appeal Br. 35).

We agree with Appellant that the disclosure in Grace of “the more compensation the landmark owner is willing to pay, the higher the rank of the landmark/promotion” (Grace ¶ 35), does not equate to “identifying, by the device and based on the plurality of target intersections, a set of landmark locations.” It is not apparent and the Examiner does not explain how Grace discloses the claimed plurality of target intersections in the set of intersections is used to determine a navigated route. Instead, Grace discloses that “[t]he route determination component 220, uses the landmarks included in the route and landmark database 204 to determine one or more landmarks located at the direction point.” Grace ¶ 34. Thus, the routes in Grace are determined directly based on landmarks which are ranked as opposed to using targeted intersections. In other words, in Grace, ranking can result in a landmark being missed by virtue of a low or no ranking which can effect route determination without difference to intersections.

We further disagree with the Examiner that Jones makes up for this deficiency. The Examiner cites to paragraphs 21 and 22 (Final Act. 9) which discloses *inter alia*, geospatial entities which are, like those in Grace, also ranked by “potential origins, destinations, or waypoints in navigation computations; and other uses where an estimation of a most popular or most interesting subset of geospatial entities is desired.” Jones ¶ 22. Therefore, it is not apparent and the Examiner does not explain how using the ranked geospatial entities of Jones remedies the likewise ranking of landmarks disclosed by Grace to result in the claimed, “identify[ing] a plurality of target intersections in the set of intersections for a navigated route; identifying, by the device and based on the plurality of target intersections, a set of landmark locations.” Accordingly, the rejection of record of claim 1 is not sustained.

Because claims 3–8, 19–24, and 28–36, depend from claims 1, 17, and 26 and we cannot sustain the rejection of claims 1, 17, and 26, the rejection of claims 3–8, 19–24, and 28–36 likewise cannot be sustained.

NEW GROUNDS—35 U.S.C. § 101 REJECTION

We enter a new ground of rejection of claims 1, 3–8, 17, 19–24, 26, and 28–33 under our authority in 37 C.F.R. § 41.50(b). Claim 1 is representative.

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract

ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a

mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”).² “All USPTO personnel are, as a matter of internal agency

² In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance.

management, expected to follow the guidance.” *Id.* at 51; *see also* October 2019 Update at 1.

Under the 2019 Revised Guidance and the October 2019 Update, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) (“Step 2A, Prong One”); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) (“Step 2A, Prong Two”).³

Guidance, 84 Fed. Reg. at 52–55.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

USPTO, *October 2019 Update: Subject Matter Eligibility* (the “October 2019 Update”) (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

³ This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* Guidance - Section III(A)(2), 84 Fed. Reg. at 54–55.

Guidance, 84 Fed. Reg. at 52–56. The U.S. Court of Appeals for 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, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See Enfish*, 822 F.3d at 1335–36.

In so doing, as indicated above, we apply a “directed to” two prong test: 1) evaluate whether the claim recites a judicial exception, and 2) if the claim recites a judicial exception, evaluate whether the claim “appl[ies], rel[ies] on, or use[s] the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Guidance, 84 Fed. Reg. at 53; *see also* MPEP § 2106.05(a)–(c), (e)–(h).

The Specification states: “The present disclosure relates generally to systems and methods for advertising. More particularly, and without limitation, the present disclosure relates to systems and methods for location-based advertising” ¶ 2.

Claim 1 recites in pertinent part:

querying, . . . one or more databases to generate a set of intersections on a map, the set of intersections including information related to:

traffic volume data,
frequency of use, and
demographic information;

analyzing, by the device, at least one of:
the traffic volume data,
the frequency of use, or
the demographic information associated with the set of intersections to identify a plurality of target intersections in the set of intersections for a navigated route;
identifying, . . . based on the plurality of target intersections, a set of landmark locations;
detecting, . . . at least one target intersection of the plurality of target intersections in a route requested by a user . . .
.;
. . . determining a location of the user . . . ;
determining, . . . that the user device is within a predetermined distance to the at least one target intersection of the plurality of target intersections in the route requested by the user . . . ;
auctioning, . . . an advertisement space to a plurality of advertisers for presenting an advertisement associated with at least one landmark location, of the set of landmark locations, associated with the route that includes the at least one target intersection;
receiving, . . . and based on detecting the at least one target intersection, a request from at least one advertiser of the plurality of advertisers to reference at least one landmark location associated with the at least one advertiser, of the set of landmark locations, in association with a particular guidance maneuver of a plurality of guidance maneuvers, the plurality of guidance maneuvers being associated with the route requested by the user . . . , the at least one advertiser offering a highest bid for the advertisement space; and
providing, . . . the user and responsive to receiving the request from the at least one advertiser, the plurality of guidance maneuvers and the advertisement, the advertisement being provided for display in association only with the particular guidance maneuver, and the advertisement being provided in relation to directions from the particular guidance maneuver to the at least one landmark location.

Accordingly, we find that claim 1 sets forth a location based advertising scheme referencing at least one landmark location associated with the at least one advertiser using a plurality of target intersections for a navigated route. This is an advertising, marketing or sales activity which are part of fundamental economic practices and one of certain methods of organizing human activity that are judicial exceptions. Guidance, 84 Fed. Reg. at 52; *see also Affinity Labs of Tex., LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1271 (Fed. Cir. 2016), *cert. denied*, 137 S. Ct. 1596 (2017) (tailoring content, such as targeted advertising, based on user information).

Turning to the second prong of the “directed to” test, claim 1 only generically requires “by a device,” and “a GPS system.” These components are described in the Specification at a high level of generality. *See Spec.* ¶¶ 24, 27, 32, Figs. 1–3. We fail to see how the generic recitations of these most basic computer components and/or of a system so integrates the judicial exception as to “impose[] a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Guidance, 84 Fed. Reg. at 53.

Thus, we find that the claims recite the judicial exception of a certain methods of organizing human activity that is not integrated into a practical application.

That the claims do not preempt all forms of the abstraction or may be limited to landmark based advertising does not make them any less abstract. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 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.”).

Turning to the second step of the *Alice* analysis, because we find that the claims are directed to abstract ideas/judicial exceptions, the claims must include an “inventive concept” in order to be patent-eligible, i.e., there must be an element or combination of elements sufficient to ensure that the claim in practice amounts to significantly more than the abstract idea itself. *See Alice*, 573 U.S. at 217–18 (quoting *Mayo*, 566 U.S. at 72–73).

Concerning this step we find claim 1 when considered as a whole in an element or combination of elements consideration is insufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself. “[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Alice*, 573 U.S. at 225. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to query, analyze, identify, detect, receive, and apply decision criteria to data as a result amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the industry. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016); *see also In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming”). In short, each step does no more than require a generic computer to perform generic computer functions. The claims do not, for example, purport to improve the functioning of the computer itself. In

addition, as we stated above, the claims do not affect an improvement in any other technology or technical field. The Specification spells out different generic equipment and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of information access under different scenarios (*see, e.g.*, Spec. ¶¶ 24, 27, 32, Figs. 1–3.) Thus, the claims at issue amount to nothing significantly more than instructions to apply the abstract idea using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 225–26.

Considered as an ordered combination, the computer components of Appellant’s claims add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis (query, analyze, identify, detect, receive, and apply decision criteria to data) and storing is equally generic and conventional or otherwise held to be abstract. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction), *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that sequence of data retrieval, analysis, modification, generation, display, and transmission was abstract); *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (holding sequence of processing, routing, controlling, and monitoring was abstract). The ordering of the steps is, therefore, ordinary and conventional.

Independent claims 17 and 26 contain similar language to that of claim 1 and are rejected for the same reason set forth above.

Claims 3–8, 19–24, and 28–33 depend from independent claims 1, 17, and 26 and are directed to the same abstract idea as claim 1. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (explaining that when all claims are directed to the same abstract idea, “addressing each claim of the asserted patents [is] unnecessary.”). These dependent claims recite additional features related to the advertising process, e.g., querying data, receiving payment. But, the additional claim elements recited in these claims are insufficient, in our view, to confer patent eligibility.

CONCLUSION OF LAW

We conclude the Examiner erred in rejecting claims 1, 3–8, 17, 19–24, 26, and 28–36 under 35 U.S.C. § 103.

CONCLUSION

In addition to reversing the Examiner’s rejection(s) of one or more claims, this decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.” This Decision contains a new rejection within the meaning of 37 C.F.R. § 41.50(b) (2007).

37 C.F.R. § 41.50(b) also provides that Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new rejection:

- (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims

so rejected, or both, and have the matter reconsidered by the Examiner, in which event the proceeding will be remanded to the Examiner. . . .

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

Should the Appellant elect to prosecute further before the examiner pursuant to 37 C.F.R. § 41.50(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the Examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the Appellant elects prosecution before the Examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed	New Ground
1, 3–8, 17, 19–24, 26, 28–33	103	Grace, Jones, Ramer		1, 3–8, 17, 19–24, 26, 28–33	
34–36	103	Grace, Jones, Ramer, Weiland		34–36	
1, 3–8, 17, 19–24, 26, 28–33	101	Eligibility			1, 3–8, 17, 19–24, 26, 28–33

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Overall Outcome				1, 3–8, 17, 19–24, 26, 28–36	1, 3–8, 17, 19–24, 26, 28–33
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REVERSED; (37 C.F.R. § 41.50(b))