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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GASTON L'HUILLER, EVAN MACMILLAN, FRANCISCO LARRAIN, RICARDO ZILLERUELO, and SEBASTIAN KREFT

Appeal 2017-007532
Application 13/481,407¹
Technology Center 3600

Before ERIC S. FRAHM, CATHERINE SHIANG, and JOHN D. HAMANN, *Administrative Patent Judges*.

SHIANG, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1–10, 12²–22, 24–30, and 32–37, which are all the claims pending and rejected in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ Appellants identify Groupon, Inc., as the real party in interest. App. Br. 2.

² Because Appellants confirm claim 11 is cancelled (App. Br. 34), their statement about *pending* claim 11 (App. Br. 9) is incorrect.

STATEMENT OF THE CASE

Introduction

According to the Specification, the present invention “relates to how to efficiently and effectively to identify early adopters and potential influencers for merchants.” Spec. ¶ 2. Claim 1 is exemplary:

1. A method comprising:

receiving a set of transactional data associated with a plurality of merchants and a plurality of customers, the set of the transactional data comprising a plurality of ordered lists of elements, each ordered list of elements defining a selected transaction of a plurality of transactions, the ordered list of elements comprising a customer, a merchant and a timestamp,

receiving social data associated with the plurality of customers via an application programming interface;

for each customer of the plurality of customers, generating, via a processor, one or more networks,

wherein generation of each network of the one or more networks is performed by:

(1) determining transaction data for a selected customer of the plurality of customers;

(2) determining one or more transaction merchants with whom the selected customer has transacted based on the transaction data; and

(3) computing a set of additional customers, each of which having subsequently transacted with the one or more transaction merchants with whom the associated customer transacted with, wherein each network comprises:

one or more merchant nodes, wherein the one or more merchant nodes identify each of the one or more merchants with whom the associated customer has transacted;

a plurality of customer nodes, each of the plurality of customer nodes node identifying one or the set of additional customers;

one or more merchant-customer edges between at least one of the one or more merchant nodes and at least one of the plurality of customer nodes defined based on a first transaction occurring between the merchant and the customer as indicated in the transactional data;

one or more customer-customer edges between two or more customer nodes of the plurality of customer nodes defined based on

each of the two or more customer nodes being associated with at least one transaction with a same particular merchant; and
a plurality of weight values each associated with at least one of the merchant-customer edges or the one or more customer-customer edges, wherein the plurality of weight values are derived based at least in part on the social data;
generating, via the processor, a network ranking of a particular customer node of the plurality of customer nodes based at least in part on a centrality of the particular customer node within at least one of the one or more networks, and wherein the centrality is determined at least in part based on the plurality of weight values; and
utilizing the network ranking of the particular customer node to determine whether to transmit a promotion to the selected customer, wherein utilization of the network ranking of the particular customer node to determine whether to transmit the promotion to the associated customer comprises:
determining if the network ranking of the particular customer node meets a predetermined threshold; and
in an instance in which the particular customer node satisfies the predetermined threshold, transmitting the promotion.

References and Rejections³

Kumar et al. ("Kumar")	US 2011/0137994 A1	June 9, 2011
Elliott Jr. et al. ("Elliott")	US 2009/0307049 A1	Dec. 10, 2009
Darr	US 2007/0226248 A1	Sept. 27, 2007
Wen et al. ("Wen")	US 2006/235810 A1	Oct. 19, 2006

³ Throughout this opinion, we refer to the (1) Final Rejection dated February 22, 2016 ("Final Act."); (2) Appeal Brief dated November 22, 2016 ("App. Br."); (3) Examiner's Answer dated February 16, 2017 ("Ans."); and (4) Reply Brief dated April 17, 2017 ("Reply Br.").

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Teague et al. ("Teague")	US 2006/0212355 A1	Sept. 21, 2006
Gross	US 2006/0010029 A1	Jan. 12, 2006

Claims 1–10, 12–22, 24–30, and 32–37 are rejected under 35 U.S.C. § 101 because they are directed to patent-ineligible subject matter. Final Act. 3–9.⁴

Claims 1, 6–9, 12, 13, 18–21, 24, 25–29, and 32 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Kumar, Darr, and Gross. Final Act. 9–35.

Claims 2–5 and 14–17 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Kumar, Darr, Gross, and Teague. Final Act. 35–44.

Claims 10, 22, and 30 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Kumar, Darr, Gross, and Wen. Final Act. 44–47.

Claims 33–37 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Kumar, Darr, Gross, and Elliot. Final Act. 47–50.

⁴ Because Appellants confirm claim 11 is cancelled (App. Br. 34), their statement about *pending* claim 11 (App. Br. 9) is incorrect.

ANALYSIS⁵
35 U.S.C. § 101

We have reviewed the Examiner’s rejections in light of Appellants’ contentions and the evidence of record. We concur with Appellants’ contention that the Examiner erred in this case.

Section 101 of the Patent Act provides “[w]hoeever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 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*. *Id.* 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.”).

⁵ Appellants raise additional arguments. Because the identified issues are dispositive of the appeal, we do not need to reach the additional arguments.

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, 69 (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 176; *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 (citation 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.* (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.*

The PTO recently published revised guidance on the application of § 101. USPTO’s 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Memorandum”). Under the guidance set forth in the Memorandum, 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); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)) (9th ed. 2018).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look 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.

See Memorandum at 54–56.

Turning to the *Alice* analysis, “[t]he second step of the *Alice* test is satisfied when the claim limitations ‘involve more than performance of []well-understood, routine, [and] conventional activities previously known to the industry.’” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1367 (Fed. Cir. 2018) (quoting *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) and *Alice*, 573 U.S. at 225).

In this case, Appellants argue with respect to the *Alice* step-two analysis, the Examiner “provides no evidence in support of the implication that the additional elements are all well-understood, routine, and conventional.” App. Br. 20.

The Examiner does not respond with the requisite evidence. Because the *Berkheimer* court held “[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination” (*Berkheimer*, 881 F.3d at 1369), the Examiner erred with respect to Step 2B of the Memorandum (correlating to (3) and (4) of the Memorandum discussed above).

Therefore, we are constrained by the record to reverse the Examiner’s rejection of claims 1–10, 12–22, 24–30, and 32–37 on procedural grounds.

35 U.S.C. § 103

We have reviewed the Examiner’s rejection in light of Appellants’ contentions and the evidence of record. We concur with Appellants’ contention that the Examiner erred in determining the cited portions of Kumar, Darr, and Gross collectively teach “utilizing the network ranking of the particular customer node to determine whether to transmit a promotion to the selected customer,” as recited in independent claim 1. *See* App. Br. 24–26; Reply Br. 2–3.

The Examiner finds “Kumar in view of Darr may not explicitly disclose” the disputed limitation, and cites Gross’ paragraph 59 instead. Final Act. 13. In response to Appellants’ arguments, the Examiner further cites Darr’s paragraphs 43 and 61. Ans. 21.

We have reviewed the cited prior art excerpts, and they do not provide sufficient details to teach “utilizing network ranking of the particular customer node to determine whether to transmit a promotion to the selected customer,” as required by claim 1.⁶ Absent further explanation from the Examiner, we do not see how the cited prior art portions teach the disputed claim limitation.

Because the Examiner fails to provide sufficient evidence or explanation to support the rejection, we are constrained by the record to reverse the Examiner’s rejection of claim 1.

⁶ If prosecution reopens, we leave it to the Examiner to determine whether with additional reasoning, the cited prior art references (or alternatively, together with an additional reference) collectively teach the disputed limitation.

Each of independent claims 13 and 25 recites a claim limitation that is substantively similar to the disputed limitation of claim 1. *See* claims 13 and 25. Therefore, for similar reasons, we reverse the Examiner's rejection of independent claims 13 and 25.

We also reverse the Examiner's rejection of corresponding dependent claims 2–10, 12, 14–22, 24, 26–30, and 32–37. Although the Examiner cites additional references for rejecting some dependent claims, the Examiner has not shown the additional references overcome the deficiency discussed above in the rejection of claim 1.

DECISION

We reverse the Examiner's decision rejecting claims 1–10, 12–22, 24–30, and 32–37.

REVERSED