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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SUDESHNA BANERJEE, THAYER S. ALLISON JR.,
DEBASHIS GHOSH, DAVID JOA, KURT D. NEWMAN,
HEMANT KAGADE and YANGHONG SHAO ¹

Appeal 2016-007587
Application 12/770,947
Technology Center 3600

Before JAMES R. HUGHES, SCOTT B. HOWARD, and
JOHN D. HAMANN, *Administrative Patent Judges*.

HUGHES, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's decision rejecting claims 1, 3–19, and 21–32. Claims 2 and 20 have been canceled. Non-Final Act. 1–2; App. Br. 1.² We have jurisdiction under 35 U.S.C. § 6(b).

¹ According to Appellants, the real party in interest is Bank of America Corporation. App. Br. 1.

² We refer to Appellants' Specification ("Spec.") filed Apr. 30, 2010; Appeal Brief ("App. Br.") filed Nov. 23, 2015; and Reply Brief ("Reply Br.") filed Aug. 2, 2016. We also refer to the Examiner's Non-Final Office

We affirm.

Appellants' Invention

The invention generally relates to “providing an interactive mobile commerce system” (Spec. ¶ 1). More particularly, the invention relates to apparatuses, systems, computer program products, and methods for having stored thereon programs configured to cause a processor to perform a multiphase deduplication process. The multiphase deduplication process (method) analyzes all allocated blocks stored in a source storage targeted for backup, determines if the blocks are duplicated in a vault storage, and stores all of the blocks that are unique non-duplicate blocks in the vault storage. Spec. ¶¶ 9–12; Abstract.

Representative Claim

Independent claim 1, reproduced below, further illustrates the invention:

1. A computer-implemented method comprising:
 - providing, using a computing device processor, a computer processor executing computer readable instruction code specifically structured to cause the computer processor to perform the following operations:
 - communicating with a consumer's mobile device to receive location information associated with the consumer's mobile device;
 - determining, using the location information, the consumer's location relative to a location of a merchant;

Action (Non-Final Rejection) (“Non-Final Act.”) mailed May 27, 2015, and Answer (“Ans.”) mailed June 3, 2016.

mapping, over time based on the consumer location relative to the location of the merchant, consumer shopping trends;

providing an offer to purchase an offered product from the merchant to the consumer's mobile device while the consumer is at the merchant location based at least partially on the consumer's location relative to the merchant and the consumer shopping trends, wherein the offered product comprises a price amount;

receiving transaction information relating to a transaction between the merchant and the consumer, wherein the transaction information comprises product information related to products purchased by the consumer;

determining the products purchased by the consumer does not include the offered product;

determining that at least one of the products purchased by the consumer is similar to that of the offered product, thus resulting in at least one similar product;

determining whether the price amount of the offered product is less than a price of the at least one similar product;

determining that the consumer affirmatively rejected the offer based on determining whether the price amount of the offered product is less than the price of the at least one similar product;

determining that the consumer lacks interest in the offer based at least partially on the indication of the affirmatively rejected offer and a comparison of the number of times the consumer's mobile device has been proximate to the location of the merchant over a period of time and the number of financial transactions associated with the consumer during that period of time and based on whether the price amount of the offered product is less than the price of the at least one similar product;

providing to the consumer's mobile device via the communication device over the distributed network, in response to determining the consumer lacks interest in the offer, a survey comprising questions related to the offer and merchant in which

the consumer lacks interest, including questions requesting a type of product that the consumer is interested in purchasing, an amount the consumer that is willing to spend on the product, how far the consumer is willing to travel to purchase the product, a brand of product that the consumer is interested in buying and a product model that the consumer is interested in buying;

receiving from the consumer's mobile device, via the communication over the distributed network, a completed survey from the consumer, wherein the completed survey comprises questions answered by the consumer about the offer and the merchant;

modifying the offer based on at least receiving the completed survey, wherein the offer is modified to feature a product that is selected based on the consumer's answers to the questions related to the offer and merchant; and

providing to the consumer's mobile device, via the communication device over the distributed network the modified offer to the consumer, wherein the modified offer is provided to the consumer on the mobile device while the consumer is still at the merchant location, wherein it is determined that the consumer is still at the merchant location based on further communicating with the consumer's mobile device to receiving location information associated with the consumer's mobile device.

Rejection on Appeal

The Examiner rejects claims 1, 3–19, and 21–32³ under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

³ We note that claim 31 recites “[t]he system of claim 30.” Independent claim 30, from which claim 31 depends, recites “[a]n apparatus.” *See App. Br. 40–42.* Appellants do not separately address claims 30 and 31. Accordingly, we need not address this issue. In the event of further prosecution, we invite the Examiner to address the apparent ambiguity in claims 30 and 31.

ISSUE

Based upon our review of the record, Appellants' contentions, and the Examiner's findings and conclusions, the issue before us follows:

Did the Examiner err in finding Appellants' claims were directed to patent ineligible subject matter under 35 U.S.C. § 101?

ANALYSIS

Appellants argue independent claims 1, 16, 18, 25, 30, and 32 (as well as dependent claims 3–15, 17, 19, 21–24, 26–29, and 31) together as a group with respect to the § 101 rejection. *See* App. Br. 22–28. We select independent claim 1 as representative of Appellants arguments with respect to claims 1, 3–19, and 21–32. 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner rejects the claims as being directed to patent-ineligible subject matter in that “the claimed invention is directed to a judicial exception (. . . an abstract idea) without significantly more”—“concepts of targeted offers based on user information, determining user response to offers, collecting market data from the customer regarding the offer, and providing follow up offers” that are “fundamental economic practices used in the arts of marketing and market research.” Non-Final Act. 2; *see also* Non-Final Act. 2–3; Ans. 2–5. Appellants contend that the claims are not directed to an abstract idea because the Examiner's interpretation of the claims is a “broad over simplification” (App. Br. 23), the Examiner has failed to provide “evidentiary support” for the rejection (*id.* at 24, citing *PNC Bank v. Secure Access, LLC*, CBM 2014-00100, Paper 10, slip op. at 21 (PTAB Sept. 9, 2014)), “the Office has not sufficiently tied the language of the claims to the purported abstract idea” (App. Br. 24), “the claims are not merely directed towards an abstract idea, but . . . require a specified set

of detailed steps necessary to accomplish the task that are sufficiently distinguished from the general concepts” delineated by the Examiner (App. Br. 25), and the claims “amount to significantly more than abstract idea itself” (App. Br. 26). *See* App. Br. 22–28; Reply Br. 2–6.

Under 35 U.S.C. § 101, a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” The Supreme Court has “long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *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)).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 77–80 (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*, 134 S. Ct. at 2355. Assuming that a claim nominally falls within one of the statutory categories of machine, manufacture, process, or composition of matter, the first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts” (*id.*), e.g., to an abstract idea. For example, abstract ideas include, but are not limited to, fundamental economic practices, methods of organizing human activities, an idea of itself, and mathematical formulas or relationships. *Id.* at 2355–57. If the claims are not directed to an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’ to determine

whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78–79). This second step is described as “a search for an “inventive concept””—*i.e.*, an element or combination of elements that is ‘ . . . significantly more than . . . the [ineligible concept] itself.’” *Id.* at 2355 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

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*, 566 U.S. at 71. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead 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).

Alice Step 1 Analysis

Turning to the first step of the eligibility analysis, “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.” *Enfish*, 822 F.3d at 1335–36. “The abstract idea exception prevents patenting a result where ‘it matters not by what process or machinery the result is accomplished.’” *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *O’Reilly v. Morse*, 56 U.S. (15 How.) 62, 113 (1853)). “We therefore look to whether the claims . . . focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself

is the abstract idea and merely invoke generic processes and machinery.”
McRO, 837 F.3d at 1314.

The Examiner finds claim 1 is directed to the abstract ideas of “collecting user data, tracking user response, facilitating user feedback, and customizing marketing materials” that are “fundamental economic practices known in the arts of marketing and market research.” Ans. 3; *see also* Non-Final Act. 2–3; Ans. 2–4. Conversely, the Appellants attack the Examiner’s findings as being a “broad over simplification” and lacking “evidentiary support” (App. Br. 23), contend the claims require specific, detailed steps distinguishing the recited method from the Examiner-delineated abstract concepts (*see* App. Br. 25), and also contend the claims are “directed to an improvement to computer functionality” (Reply Br. 3 (citing *Enfish*, 822 F.3d at 1335–36). *See* App. Br. 22–26; Reply Br. 2–4. We agree with the Examiner that Appellants’ claim 1 (and the other pending claims) are directed to a patent-ineligible abstract ideas or concepts.

Instead of using a fixed definition of an abstract idea and analyzing how claims fit (or do not fit) within the definition, “the decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen — what prior cases were about, and which way they were decided.” *Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (citing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016)). As part of this inquiry, we must “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DirecTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016).

Here, Appellants' claims generally, and independent claim 1 in particular, relate to collecting information (receiving location information, receiving transaction information, and receiving completed survey information), as well as analyzing and manipulating information: determining the consumer's location relative to a merchant, mapping the consumer's shopping trends, providing an offer based on the shopping trends, determining the products purchased, determining the consumer purchased a product similar to the offered product, determining that the price of the offered product is less than that of the similar product and (based on this) determining the consumer rejected the offer based on price, determining the consumer lacks interest in the offer based on the consumer's rejection of the offer based on price and the number of times the consumer has been proximate to the merchant and the number of transactions associated with the consumer, providing the consumer a survey comprising questions related to the offer, and modifying the offer based on the completed survey. *See* claim 1. That is, Appellants claims relate to analyzing and manipulating data utilizing un-recited processes or algorithms to provide various results (an offer, numerous determinations, and a revised offer). Therefore, the claims broadly recite collecting, analyzing, and manipulating information (data). *See* Abstract; Spec. ¶¶ 9–12. This is consistent with how Appellants describe the claimed invention (*see* App. Br. 2–6). *See* Spec. ¶¶ 4, 5, 7–15, 40–42, 44–46, 60, 66, 67, 69, 74–84, 89, 90, 96–100, 103–106; Figs. 8–10. Contrary to Appellants' assertions (*see* App. Br. 22–26; Reply Br. 2–4), the present claims are directed to an abstract idea, in that the instant claims are analogous to a number of cases in which courts have identified similar claims as encompassing abstract ideas.

Our reviewing court has held that abstract ideas include gathering, analyzing, and manipulating information. *See Elec. Power*, 830 F.3d at 1354 (finding claims directed to a “combination of . . . abstract-idea processes . . . of gathering and analyzing information” to be abstract). Similarly, our reviewing court has held that abstract ideas include gathering, analyzing, and storing information. *See Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC.*, 874 F.3d 1329, 1337–38 (Fed. Cir. 2017) (finding claims directed to the functional results of accumulating, converting, and monitoring records manipulate data “but fail[] to do so in a non-abstract way” (*id.* at 1338)); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (finding the “claims generally recite . . . extracting data . . . [and] recognizing specific information from the extracted data” (*id.* at 1345) and that the “claims are drawn to the basic concept of data recognition” (*id.* at 1347)).

Here, the collection, analysis, and manipulation of information (data)—in the form of collecting specific data, analyzing and evaluating that data (the determinations), and the manipulation of the data and resulting determinations (mapping, providing an offer, providing a survey, and providing a revised offer)—are analogous to the abstract ideas of collecting, analyzing, and manipulating information discussed in *Elec. Power*, *Two-Way Media*, and *Content Extraction*. Appellants’ claims can be distinguished from patent-eligible claims such as those in *Enfish* (directed to “a specific improvement to the way computers operate.” *Enfish*, 822 F.3d at 1336). Appellants’ claims are directed to the results of data analysis and manipulation (the various determinations, providing a survey, and providing the offers) rather than “a particular way of performing” or “inventive

technology for performing those functions” or, in other words, “achiev[ing] these results in a non-abstract way.” *Two-Way Media*, 874 F.3d at 1337–38. In other words, “the focus of the claims is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.” *Elec. Power*, 830 F.3d at 1354.

With respect to Appellants’ arguments concerning the Examiner’s prima facie case, we note that *PNC Bank* is a nonprecedential PTAB opinion, and therefore, not binding on this panel. Moreover, there are significant differences between the attorney arguments that are presented in a post-grant AIA-CBM proceeding such as *PNC Bank* compared to findings and conclusions of an Examiner. *See Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1042–44 (Fed. Cir. 2017) (discussing differences between attorney arguments and the Examiner’s findings). Further, the Panel in *PNC Bank* relied on more than the lack of persuasive evidentiary support in determining that the claims were not directed to an abstract idea. *See PNC Bank*, Paper 13, slip op. at 4 (PTAB Sept. 30, 2014) (recognizing that the lack of evidence was only “one factor in our analysis” in denying request for rehearing).

Thus, we agree with the Examiner that the claims are directed to the abstract ideas of collecting, analyzing, and manipulating information. Notably, this characterization is consistent with Appellants’ description of the claimed invention. *See Spec.* ¶¶ 113 (“computer-executable program code . . . provided to a processor of a general purpose computer”), 116 (“general-purpose circuits perform the function by executing particular computer-executable program code”).

Alice Step 2 Analysis

Having found Appellants' claims are directed to an abstract idea under *Alice*'s step 1 analysis, we next address whether the claims add significantly more to the alleged abstract idea. As directed by our reviewing Court, we search for an "'inventive concept' sufficient to 'transform the nature of the claim into a patent-eligible application.'" *McRO*, 837 F.3d at 1312 (quoting *Alice*, 134 S. Ct. at 2355). The implementation of the abstract idea involved must be "more than performance of 'well-understood, routine, [and] conventional activities previously known to the industry.'" *Content Extraction*, 776 F.3d at 1347–48 (alteration in original) (quoting *Alice*, 134 S. Ct. at 2359). The "inventive concept" "must be significantly more than the abstract idea itself, and cannot simply be an instruction to implement or apply the abstract idea on a computer." *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016).

Here, the Examiner determined that Appellant's claims do not add significantly more. *See* Non-Final Act. 2–3; Ans. 4–5. Appellants, on the other hand, contend the claims recite, *inter alia*, "[t]he generation, presentation, and subsequent review of the survey [which] is akin to a physical process of surveying" that the PTAB found to be patent-eligible in *U.S. Bancorp v. Solutran*. App. Br. 27 (citing *U.S. Bancorp v. Solutran, Inc.*, CBM2014–00076 (PTAB Aug. 7, 2014) (Paper 16)). *Solutran* is unpersuasive for the same reasons as *PNC Bank (supra)*. Appellants further contend the "claims require positioning systems" (App. Br. 27), solve a technological problem similar to *Diehr (see App. Br. 28, citing Diamond v. Diehr, 450 U.S. 175, 187 (1981))*, and include "an inventive concept" in that "the additional recited elements amount[] to significantly more than the

abstract idea” (Reply Br. 5, citing *Bascom*, 827 F.3d at 1349). *See* App. Br. 26–28; Reply Br. 4–6.

Appellants fail to persuade us of error in the Examiner’s rejection with respect to the second *Alice* step. Here Appellants conflate the *Alice* two-part analysis and do not address the Examiners’ findings. To the extent Appellants’ arguments invoke *DDR Holdings* (*see* Reply Br. 5–6)—in that the instant claims improve the operation of a computer system (*supra*)—we disagree. In *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), the court held that a claim may amount to more than an abstract idea recited in the claims when it addresses and solves problems *only* encountered with computer technology and online transactions, e.g., by providing (serving) a composite web page rather than adhering to the routine, conventional functioning of Internet hyperlink protocol. *See DDR Holdings*, 773 F.3d at 1257–59. In contrast, claim 1 performs a process of analyzing and manipulating information, utilizing conventional computer networks and systems. *See* Ans. 4–5; Spec. ¶¶ 9–12, 113, 116; Fig. 1. Despite Appellants’ arguments to the contrary (analogizing their claims to those in *BASCOM* and *DDR*), nothing in the claim recites a “specific improvement to the way computers operate” (*supra*). The analysis and manipulation of customer information and creation of surveys and/or offers based on that information, is not a solution to a technical problem as discussed in *DDR Holdings*. Providing an offer, determining various intermediate results, creating and providing a survey, evaluating the survey, and providing a modified offer, are all commercial solutions to a consumer marketing problem (*see* Act. 2–3; Ans. 2–4), not a technical solution to a computer or networking problem. This commercial solution may be assisted

using a general purpose computer to perform the data collection, analysis, and manipulation processes, but does not improve how the computer itself functions. As we previously explained, the instant claims are more akin to the claims for analyzing information found to be abstract in *Elec. Power*, 830 F.3d at 1353.

We agree with the Examiner that the additional limitations, separately, or as an ordered combination, do not provide meaningful limitations (i.e., do not add significantly more) to transform the abstract idea into a patent eligible application. *See e.g.*, Ans. 2–4. Indeed, the claim merely recites functions (processes) for presenting offers and surveys based on analyzed and manipulated consumer data. Such steps are all routine and conventional and well-understood computer functions of a general processor. The Specification supports this view in discussing the processes implemented in software which operates on generic computers to perform the recited data manipulation steps. *See Spec.* ¶¶ 113, 116. Such convention computer processes “do not alone transform an otherwise abstract idea into patent-eligible subject matter.” *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1096 (Fed. Cir. 2016) (citing *DDR Holdings*, 773 F.3d at 1256).

For at least the reasons above, we are not persuaded of Examiner error in the rejection of claim 1 under 35 U.S.C. § 101. Thus, we sustain the Examiner’s rejection under § 101 of independent claims 1, 16, 18, 25, 30, and 32, as well as dependent claims 3–15, 17, 19, 21–24, 26–29, and 31, which were not argued separately.

CONCLUSION

Appellants have not shown that the Examiner erred in rejecting claims 1, 3–19, and 21–32, under 35 U.S.C. § 101.

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DECISION

We affirm the Examiner's rejections of claims 1, 3–19, and 21–32. 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