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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LESLIE Y. GREEN, TRAVIS C. BROOKS,
REBECCA HARRISON, PATRICK M. LEWIS, MEGHAN C. MINNEAR,
BONNIE A. WEBER, and SEAN A. WILLIAMS

Appeal 2018-003826
Application 14/219,822¹
Technology Center 3600

Before JUSTIN BUSCH, JASON J. CHUNG, and
SCOTT E. BAIN, *Administrative Patent Judges*.

CHUNG, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the Final Rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

INVENTION

The invention relates to managing acceptance issues associated with payment transactions. Spec. ¶ 1. Claim 1 is illustrative of the invention and is reproduced below:

1. A computer-implemented method for identifying, investigating, tracking, and resolving an

¹ According to Appellants, MasterCard International Incorporated is the real party in interest. App. Br. 1.

acceptance issue occurring on a payment network using an acceptance issue record, the acceptance issue record being an improved acceptance issue record that includes a complete management record of the acceptance issue, the method comprising:

receiving a notification message of an acceptance issue occurring somewhere on the payment network, the acceptance issue relating to a transaction completion attempt by a cardholder using a payment card that is processed over the payment network that is rejected;

classifying, by one or more processors, the acceptance issue based on at least one of the notification message and results data of a first investigation;

generating the acceptance issue record based on the classification;

storing the acceptance issue record in a global service manager acceptance data section of a central memory device;

determining, by the one or more processors, an impact of the acceptance issue on the payment network, wherein determining an impact comprises determining at least one of a financial impact and a customer quality impact of the acceptance issue;

determining, when the impact meets a predetermined threshold, a remediation of the acceptance issue based at least partially on the classification;

tracking, by the one or more processors, the acceptance issue, the classification, and the remediation using the central memory device;

monitoring, using the one or more processors, the remediation;

determining, using the one or more processors, based on the monitoring, that the remediation has been implemented;

updating, using the one or more processors, the acceptance issue record such that the acceptance issue record indicates that the remediation has been implemented;

continuing to monitor, using the one or more processors, the remediation after confirming the remediation has been implemented;

determining, based on the continued monitoring, whether the implemented remediation resolves the acceptance issue; and
outputting a report for a system administrator based on the acceptance issue record.

REJECTION AT ISSUE

Claims 1–20 stand rejected under 35 U.S.C. § 101 as being directed to patent ineligible subject matter. Final Act. 2–11.

ANALYSIS

A. *Legal Principles*

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*. *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.”).

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. (15 How.) 252, 267–68 (1854))); 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.* (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 January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“Memorandum”). Under that guidance, 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)).

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 are 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.

B. The Examiner's Conclusions and Appellants' Arguments

The Examiner concludes the present claims recite certain methods of organizing human activity. Final Act. 6. Moreover, the Examiner concludes the present claims are analogous to the claims in *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016). *Id.* at 6–7. The Examiner also determines the present claims do not amount to significantly more than an abstract idea because the Examiner finds the abstract idea is implemented on generic components that are well-understood, routine, and conventional previously known to the industry. *Id.* at 3–4.

Appellants argue, similar to the claims in *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1308–14 (Fed. Cir. 2016), the present claims focus on a specific means that improves the relevant technology and uses a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results. App. Br. 6–7; Reply Br. 2–3. In addition, Appellants argue the present claims are not abstract because they require that rules be rendered in a specific way and do not preempt any abstract idea. App. Br. 7; Reply Br. 1–3.

Moreover, Appellants argue, similar to the claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), the present claims address an acceptance issue (i.e., a problem) in a computer-based payment network (e.g., but for the payment network, the acceptance issue would not

exist). App. Br. 8; Reply Br. 1–2. Additionally, Appellants argue, similar to the claims in *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016), the present claims carve out a very specific method for globally tracking, managing, and remedying an acceptance issue occurring on a payment network, and include an ordered combination of claim limitations that transform the abstract idea into a practical application. App. Br. 8–9; Reply Br. 2. Furthermore, Appellants argue, similar to claims 2 and 3 of Example 35 in the “Subject Matter Eligibility Examples: Business Methods” published by the USPTO on December 15, 2016 (hereinafter “2016 Guidance”), the present claims include a combination of limitations that operate in a non-conventional and non-generic way to manage electronically an acceptance issue in a computer-based payment network. App. Br. 9–11; Reply Br. 3–4. We disagree with Appellants.

C. Discussion

1. Step 2A, Prong 1 (Alice Step 1)

Claim 1, as a whole, is directed to globally tracking, managing, and remedying acceptance issues occurring on a computer-based payment network. Globally tracking, managing, and remedying acceptance issues occurring on a computer-based payment network is a commercial interaction (including sales activities or behaviors). According to the Memorandum, commercial interactions (including sales activities or behaviors) fall into the category of certain methods of organizing human activity, which the Memorandum explains is one category of abstract ideas. *See* Memorandum.

Moreover, we conclude the claims at issue here are analogous to the claims in *FairWarning*, 839 F.3d at 1098. In *FairWarning*, the court held

that the claims were drawn to “collecting and analyzing information to detect misuse and notifying a user when misuse is detected.” *Id.* at 1094–1995. In both cases, the claims are drawn to certain methods of organizing human activities, which is an abstract idea.

Because the present claims recite an abstract idea, we proceed to prong 2.

2. *Step 2A, Prong 2 (Alice Step 1)*

The present claims do not integrate the abstract idea into a practical application because they do not impose any meaningful limits on practicing the abstract idea. In particular, we disagree with Appellants’ argument (App. Br. 6–7; Reply Br. 2–3) that, similar to the claims in *McRO*, the present claims recite improvements to the functioning of a computer or to any other technology or technical field.

Unlike the claims of *McRO*, the present claims are not directed to rules for lip sync and facial expression animation. Instead, the present claims are directed to an abstract idea as discussed *supra* in § C.1.—not an improvement to computer functionality. The Specification indicates the additional elements (“payment network,” “one or more processors,” “at least one processor,”² “central memory device,” “one or more memory devices,”³ and “single database”⁴) recited in the present claims are merely tools used to implementing the abstract idea. Spec. ¶¶ 18, 22, 31–33, 42, 43, 48, 53, 68,

² Independent claim 15 recites “at least one processor,” whereas independent claims 1 and 8 recite “one or more processors.”

³ Independent claim 8 recites “one or more memory devices,” whereas independent claims 1 and 15 recite “central memory device.”

⁴ Independent claim 8 is the only independent claim that recites “single database.”

69.

Additionally, we disagree with Appellants' argument that the present claims are patent eligible because they do not preempt any abstract idea (App. Br. 7); while preemption may denote patent ineligibility, its absence does not demonstrate patent eligibility. *See FairWarning*, 839 F.3d at 1098. For claims covering a patent-ineligible concept, preemption concerns "are fully addressed and made moot" by an analysis under the *Mayo/Alice* framework. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

The present claims also fail to recite other limitations that apply the exception in a meaningful way. Rather, the present claims recite certain methods of organizing human activity using generic components. Specifically, we determine the additional elements in the present claims ("payment network," "one or more processors," "at least one processor," "central memory device," "one or more memory devices," and "single database") are merely generic components insufficient to integrate the abstract idea into a practical application. Also, these additional elements in claim 1 are described in the Specification at a high level of generality insufficient to integrate the abstract idea into a practical application. Spec. ¶¶ 18, 22, 31–33, 42, 43, 48, 53, 68, 69.

Appellants do not make any other arguments pertaining to step 2A, prong 2. Because the present claims are directed to an abstract idea, we proceed to Step 2B.

3. *Step 2B (Alice Step 2)*

We agree with the Examiner's finding that the abstract idea is implemented on generic components that are well-understood, routine, and

conventional activities previously known to the industry. Final Act. 3–4. And the Specification supports the finding that “payment network,” “one or more processors,” “at least one processor,” “central memory device,” “one or more memory devices,” and “single database” are generic components. Spec. ¶¶ 18, 22, 31–33, 42, 43, 48, 53, 68, 69. Appellants’ Specification indicates these elements were well-understood, routine, and conventional components previously known to the industry because it describes them at a high level of generality and in a manner that indicates that they are sufficiently well-known.

We disagree with Appellants’ argument that the claimed subject matter is related to problems that are necessarily rooted in computer technology and specifically arise in the realm of computer networks (App. Br. 8; Reply Br. 1–2) for at least the reasons discussed *supra* in §§ C.1., C.2. That is, the present claims focus on an abstract idea that merely uses generic components as tools.

We also disagree with Appellants’ argument that the present claims are analogous to the claims in *BASCOM* in which an inventive concept was found in a non-conventional and non-generic arrangement of pieces (App. Br. 8–9; Reply Br. 2) for at least the reasons discussed *supra* in §§ C.1., C.2. Specifically, the present claims focus on an abstract idea that merely uses generic components as tools.

Regarding Appellants’ argument that the present claims are similar to claims 2 and 3 of Example 35 from the 2016 Guidance (App. Br. 9–11; Reply Br. 3–4), we disagree. Claim 2 of Example 35 operates in a non-conventional and non-generic way to ensure that the customer’s identity is verified in a secure manner that is more than the conventional verification

process employed by an ATM alone. *See* 2016 Guidance. That is, the unconventional process includes the ATM's provision of a random code, the mobile communication device's generation of the image having encrypted code data in response to the random code, the ATM's decryption and analysis of the code data, and the subsequent determination of whether the transaction should proceed based on the analysis of the code data. *Id.*

Similarly, claim 3 of Example 35 operates in a non-conventional and non-generic way to ensure that the customer's identity is verified in a secure manner that is more than the conventional verification process employed by an ATM alone. *Id.* Specifically, the unconventional process includes the ATM's provision of a random code, the mobile communication device's generation of the customer confirmation code in response to the random code, the ATM's analysis of the customer confirmation code, and the ATM's subsequent transmission of a control signal to provide or prevent access to the keypad of the ATM and thus allow or prevent a transaction based on the analysis of the code data sets. *Id.*

In contrast, the present claims do not operate in a non-conventional and non-generic way. Instead, the present claims are directed to globally tracking, managing, and remedying acceptance issues occurring on a computer-based payment network. As stated *supra*, we conclude the present claims recite an abstract idea that merely uses computers as tools. We also conclude that the present claims are more analogous to the claims in *FairWarning* than claims 2 and 3 of Example 35 from the 2016 Guidance.

Appellants do not argue claims 2–20 separately with particularity, but assert the rejections of those claims should be withdrawn for at least the same reasons as argued for independent claim 1. App. Br. 5–12.

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Accordingly, we sustain the Examiner's rejection of: (1) independent claims 1, 8, and 15; and (2) dependent claims 2–7, 9–14, and 16–20 under 35 U.S.C. § 101.

We have only considered those arguments that Appellants actually raised in the Briefs. Arguments Appellants could have made, but chose not to make, in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

We affirm the Examiner's decision rejecting claims 1–20 under 35 U.S.C. § 101.

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