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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KENNETH UNSER, KENT OLOF NIKLAS BERNTSSON, and
JEAN-PIERRE GERARD

Appeal 2018-003864
Application 14/518,565
Technology Center 3600

Before ROBERT E. NAPPI, JASON J. CHUNG, and
JOYCE CRAIG, *Administrative Patent Judges*.

CHUNG, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals the Final Rejection of claims 5 and 7–11.² We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

INVENTION

The invention relates to linking of data associated with a signature or handwriting characteristics with consumer payment card transaction history based on a plurality of demographic characteristics and the identification of

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. According to Appellant, MasterCard International Incorporated is the real party in interest. Appeal Br. 2.

² Claims 1–4, 6, and 12 are cancelled. Appeal Br. 1–2, 4.

consumer characteristics based on handwriting characteristics. Spec. ¶ 1.

Claim 5 is illustrative of the invention and is reproduced below:

5. A system for identifying associations between handwriting characteristics and purchase behavior, comprising:

a handwriting database configured to store a plurality of handwriting profiles, wherein each handwriting profile includes at least a handwriting characteristic;

a profile database configured to store a plurality of consumer profiles, wherein each consumer profile includes data related to one or more consumers including at least a plurality of handwriting characteristics associated with each of the related one or more consumers and a plurality of transaction data entries each corresponding to a payment transaction involving at least one of the related one or more consumers;

a processing device configured to identify, for each consumer profile of the plurality of consumer profiles, a plurality of purchase behaviors based on at least the plurality of transaction data entries included in the respective consumer profile,

identify, for a specific handwriting profile in the handwriting database, one or more associated purchase behaviors based on the identified plurality of purchase behaviors included in each consumer profile of the plurality of consumer profiles that includes the handwriting characteristic included in the specific handwriting profile, and

associate, in the handwriting database, the identified one or more associated purchase behaviors with the specific handwriting profile;

a transmitting device; and

a receiving device configured to receive a purchase behavior request, wherein the purchase behavior request includes at least the handwriting characteristic included in the specific handwriting profile, wherein

the processing device is further configured to identify, in the handwriting database, the specific handwriting profile based on the handwriting characteristic included in the received purchase behavior request, and

the transmitting device is configured to transmit the identified one or more associated purchase behaviors.

REJECTION AT ISSUE³

Claims 5 and 7–11 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 6–11.

ANALYSIS

I. 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

³ The rejections under 35 U.S.C. § 103 are not before us as the claims they were directed to, claims 1–4, 6, and 12, have been canceled. *Compare* Final Act. 11–17 *with* Advisory Action mailed on June 26, 2017.

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 192 (“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 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.

II. The Examiner's Conclusions and Appellant's Arguments

The Examiner concludes the present claims recite certain methods of organizing human activity. Final Act. 3, 9, 10; Ans. 4, 9. The Examiner also determines the present claims do not amount to significantly more than an abstract idea itself because the abstract idea is implemented on generic components that are well-understood, routine, and conventional previously known to the industry. Final Act. 10 (citing Spec. ¶¶ 81–83, 85, 87, 88, 91).

Appellant argues, 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 recite an improvement in computer-related technology by efficiently communicating across the proper channels to acquire and subsequently analyze necessary information in order to effectively identify correlations between handwriting characteristics and purchase behavior. Appeal Br. 6–7; Reply Br. 2–4. Appellant argues, unlike the patent-ineligible claims in *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253 (Fed. Cir. 2016) and similar to the patent-eligible claims in *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253 (Fed. Cir. 2017) the present claims recite how to implement a system to achieve an objective. Reply Br. 8–9. Appellant argues the present claims do not preempt any abstract idea. Appeal Br. 13–15; Reply Br. 6–7. Appellant argues that, because there is no art rejection remaining for our consideration, this is evidence that the present claims recite features that were not known previously. Appeal Br. 12–13. Appellant argues, similar to *BASCOM Global Internet Services, Inc. v.*

AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016), the present claims recite a combination of non-conventional and non-generic arrangement of known, conventional elements, which results in an inventive concept.⁴

Appeal Br. 15–18. We disagree with Appellant.

C. Discussion

1. Step 2A, Prong 1

Under Step 2A, Prong One of the Office Guidance, we first consider whether the claim recites an abstract idea. Office Guidance, 84 Fed. Reg. at 54. The Office Guidance has synthesized the key concepts identified by the courts as abstract ideas into three groupings: certain methods of organizing human activity, mathematical concepts, and mental processes. *Id.* at 52. We reproduce claim 5 below, with emphases.

5. A system for identifying associations between handwriting characteristics and purchase behavior, comprising:
a handwriting database configured to store *a plurality of handwriting profiles, wherein each handwriting profile includes at least a handwriting characteristic;*
a profile database configured to store *a plurality of consumer profiles, wherein each consumer profile includes data related to one or more consumers including at least a plurality of handwriting characteristics associated with each of the related one or more consumers and a plurality of transaction*

⁴ We need not address Appellant’s arguments pertaining to *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011), *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011), *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n.*, 776 F.3d 1343 (Fed. Cir. 2014), *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089 (Fed. Cir. 2016), and *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) because, applying the guidance in the Memorandum, we do not rely on these cases to reach our Decision. Appeal Br. 7–13; Reply Br. 4–5.

data entries each corresponding to a payment transaction involving at least one of the related one or more consumers;

a processing device configured to

identify, for each consumer profile of the plurality of consumer profiles, a plurality of purchase behaviors based on at least the plurality of transaction data entries included in the respective consumer profile,

identify, for a specific handwriting profile in the handwriting database, one or more associated purchase behaviors based on the identified plurality of purchase behaviors included in each consumer profile of the plurality of consumer profiles that includes the handwriting characteristic included in the specific handwriting profile, and

associate, in the handwriting database, the identified one or more associated purchase behaviors with the specific handwriting profile;

a transmitting device; and

a receiving device configured to receive a purchase behavior request, wherein the purchase behavior request includes at least the handwriting characteristic included in the specific handwriting profile, wherein

the processing device is further configured to identify, in the handwriting database, the specific handwriting profile based on the handwriting characteristic included in the received purchase behavior request, and

the transmitting device is configured to transmit the identified one or more associated purchase behaviors.

The emphasized portions of claim 5,⁵ reproduced above, recite commercial interactions (including sales activities or behaviors). According to the Memorandum, commercial interactions (including sales activities or

⁵ Claim 5, reproduced above with emphases, recites similar features as independent claim 9. Appellant acknowledges this. Appeal Br. 18. Appellant does not argue claims 7–11 separately. Appeal. Br. 5–18. We, therefore, group claims 5 and 7–11 together and refer to those claims as the “present claims.”

behaviors) fall into the category of certain methods of organizing human activity. *See* Memorandum. Moreover, those certain methods of organizing human activity are a type of an abstract idea. *See id.*

Additionally, the each “identify” limitation and the “associate” limitation recite concepts performed in the human mind. According to the Memorandum, concepts performed in the human mind fall into the category of mental processes. *See* Memorandum. Moreover, those mental processes are a type of an abstract idea. *See id.*

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

2. *Step 2A, Prong 2*

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 Appellant’s argument that the present claims recite improvements to the functioning of a computer or to any other technology or technical field. Appeal Br. 18–20; Reply Br. 4–6.

The alleged improvement is an improvement to the present claims, which recite an improvement in identifying correlations between handwriting characteristics and purchase behavior. Appeal Br. 6–7; Reply Br. 2–4. Appellant does not identify, and we do not find, where the Specification sets forth an improvement in technology. Moreover, the subject claim considered by the *McRO* court concerned a method for automatically animating lip synchronization and facial expressions. *McRO*, 837 F.3d at 1303. The *McRO* court concluded the subject claims did not recite an abstract idea because the computer animation improved the prior art through the use of rules, rather than artists, to set morph weights and

transitions between phonemes. *Id.* at 1308. Thus, the claimed invention in *McRO* allowed for computer performance of animation steps that previously had to be performed by human animators. *Id.* at 1309. The subject claims in *McRO* used “limited rules in a process specifically designed to achieve an improved technological result” over “existing, manual 3-D animation techniques.” *Id.* at 1316 (emphasis added). Unlike the claims of *McRO*, the present claims are not directed to rules for lip sync and facial expression animation or an improvement in computer technology.

Instead, the present claims recite an abstract idea as discussed *supra*, in § I.C.1. or at best, improving an abstract idea—not a technological improvement. The Specification indicates the additional elements (i.e., “handwriting database,” “profile database,”⁶ “processing device,” “transmitting device,” and “receiving device”) recited in the present claims are merely tools used to implement the abstract idea. Spec. ¶¶ 7–9, 81–83, 85, 87, 88, 91.

Additionally, “a claim for a *new* abstract idea is still an abstract idea.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). “[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016) (citations omitted).

We disagree with Appellant’s argument that, unlike the patent-ineligible claims in *Affinity Labs*, and similar to the patent-eligible claims in

⁶ Claim 5 recites “profile database,” whereas claim 9 does not.

Visual Memory, the present claims recite how to implement a system to achieve an objective. Reply Br. 8–9. As an initial matter, Appellant’s argument is untimely and waived because the Examiner’s Answer did not open the door to Appellant’s use of *Affinity Labs* and *Visual Memory*; two cases that were available for Appellant to include in their Appeal Brief arguments. See 37 C.F.R. § 41.41(b)(2). Even if Appellant’s argument was timely, which it was not, we conclude the present claims recite an abstract idea as discussed *supra*, in § I.C.1. or at best, improving an abstract idea—not a technological improvement. The additional elements recited in the present claims are merely tools used to implement the abstract idea. Spec. ¶¶ 7–9, 81–83, 85, 87, 88, 91.

With regard to Appellant’s argument that the present claims recite features that were not known previously because there are no obviousness or novelty rejections of the claims, (Appeal Br. 12–13), Appellant improperly conflates the requirements for eligible subject matter (§ 101) with the independent requirements of novelty (§ 102) and non-obviousness (§ 103). “The ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.” *Diehr*, 450 U.S. at 188–89; see also *Genetic Techs.*, 818 F.3d at 1376 (stating that, “under the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility”).

Additionally, we disagree with Appellant’s argument that the present claims are patent eligible because they do not preempt any abstract idea.

Appeal Br. 13–15; Reply Br. 6–7. Although 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).

Appellant does not make any other arguments pertaining to step 2A, prong 2. Because the present claims recite an abstract idea that is not integrated into a practical application, we proceed to Step 2B.

3. Step 2B

We agree with the Examiner’s finding that the abstract idea is implemented on generic components that are well-understood, routine, and conventional. Final Act. 10 (citing Spec. ¶¶ 81–83, 85, 87, 88, 91). The Specification supports the Examiner’s finding in this regard because it explains that “handwriting database,” “profile database,” “processing device,” “transmitting device,” and “receiving device” are generic components. Spec. ¶¶ 7–9, 81–83, 85, 87, 88, 91. Appellant’s Specification indicates these elements were well-understood, routine, and conventional components because it describes them at a high level of generality and in a manner that indicates that they are sufficiently well-known. *Id.*

We disagree with Appellant’s argument that, similar to *BASCOM*, the present claims recite a combination of non-conventional and non-generic arrangement of known, conventional elements, which results in an inventive concept. Appeal Br. 15–18. Instead, the present claims are directed to an abstract idea using generic components as discussed *supra*, in §§ I.C.1. and I.C.2. or at best, improving an abstract idea—not an inventive concept.

Appellant does not argue claims 7–11 separately, but asserts the § 101 rejection of those claims should be withdrawn for at least the same reasons as argued for independent claim 5. Appeal Br. 5–18. Based on our review of claims 7–11, these claims do not recite any additional features that would transform the abstract idea embodied in claims 7–11 into an inventive concept. Accordingly, we sustain the Examiner’s rejection of:

(1) independent claims 5 and 9; and (2) dependent claims 7, 8, 10, and 11 under 35 U.S.C. § 101.

We have only considered those arguments that Appellant actually raised in the Briefs. Arguments Appellant 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).

CONCLUSION

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
5, 7–11	101	Eligibility	5, 7–11	

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED