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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SANDEEP MALHOTRA, RAJEN S. PRABHU,
PRASHANT SHARMA, JIAMING LI, and JIE ZHANG¹

Appeal 2017-009394
Application 14/183,829
Technology Center 3600

Before BRADLEY W. BAUMEISTER, MICHAEL M. BARRY, and
JOHN R. KENNY, *Administrative Patent Judges*.

BAUMEISTER, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 2, 4–10, 12–16, 19, and 21–25. App. Br. 11. These claims stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 6.²

We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

¹ Appellants identify Mastercard International Incorporated as the real party in interest. Appeal Brief filed March 2, 2017 (“App. Br.”) 2.

² Rather than repeat the Examiner's positions and Appellants' arguments in their entirety, we refer to the above-mentioned Appeal Brief, as well as the following documents, for their respective details: the Final Action mailed October 26, 2016 (“Final Act.”); the Examiner's Answer mailed April 21, 2017 (“Ans.”); and the Reply Brief filed June 20, 2017 (“Reply Br.”).

THE INVENTION

Appellants describe the present invention as follows:

Methods and systems for providing business services solutions for small and medium enterprises (SMEs) owned by merchants in developed markets and in developing markets. In some embodiments, a merchant enrolls with a merchant issuer financial institution (FI) and then receives an SME financial account, a suite of shared SME business service applications, and access to a payment card acceptance service for use in setting up and scaling their business. In an implementation, the process includes receiving a request for an SME business platform, validating merchant identification data, providing an SME financial account to the merchant, transmitting an SME business platform acceptance message, and transmitting an SME business platform to the merchant device. The SME business platform includes a payment card account acceptance application and at least one business services application configured for running on the merchant device.³

Abstract.

Independent claim 1 is representative of the appealed claims.⁴ It is reproduced below with modified formatting for clarity and with emphasis added to the language that recites an abstract idea:

1. *A method for providing low cost, electronic business services solutions to small and medium enterprises (SMEs) comprising:*

[i] *receiving, by a merchant issuer FI computer from a merchant device, a request for a small to medium enterprise (SME) business platform, wherein the request includes merchant identification data of a merchant;*

³ We understand business platform to be a suite or collection of business-service software applications. *See, e.g.*, Spec. 9:4–16.

⁴ Appellants argue all of the claims together as a group. *See* App. Br. 16. Accordingly, we select independent claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

- [ii] *determining, by the merchant issuer FI computer based on the merchant identification data, that the merchant qualifies as an SME;*
- [iii] *determining, by the merchant issuer FI computer, that the merchant passed a credit check based on business financial records of the merchant;*
- [iv] *transmitting, by the merchant issuer FI computer to a payment processing computer, the merchant identification data;*
- [v] *transmitting, by the merchant issuer FI computer, an SME financial account comprising at least one of a merchant business credit card account and a merchant business debit card account to the merchant device;*
- [vi] *transmitting, by the merchant issuer FI computer[,] an SME business platform to the merchant device, wherein the SME business platform is based on requirements of the SME and comprises a low cost payment card account acceptance application and at least one business services application, wherein the SME business platform is configured for running on the merchant device and is supported by the payment processing computer;*
- [vii] *receiving, by the merchant issuer FI computer from the merchant device, SME purchase transaction data comprising at least customer payment card account data and transaction amount data;*
- [viii] *determining, by the merchant issuer FI based on the SME purchase transaction data and the requirements of the SME, business data comprising at least one of analytics data and customer data related to customer trends; and*
- [ix] *transmitting, by the merchant FI computer to the merchant device, the business data for use in improving business operations.*

PRINCIPLES OF LAW

A. SECTION 101

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 Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012) and *Alice*. *Alice*, 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. at 75–77). 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. 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 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.* (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.*

B. USPTO SECTION 101 GUIDANCE

The United States Patent and Trademark Office (“USPTO” or “the Office”) recently published revised guidance on the application of § 101. USPTO’s Memorandum, 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Guidance”). Under the 2019 Guidance, we first look to whether the claim recites the following:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activities 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)).

See 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 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 84 Fed. Reg. at 56.

ANALYSIS

Step 2A, Prong 1

The Examiner initially finds that the claims “are directed to the abstract idea of applying for and receiving financial accounts and business tools.” Final Act. 6. The Examiner expands upon that characterization in the Examiner’s Answer, determining that the claims recite certain methods of organizing human activities, including sales activities or behaviors. Ans. 3–4.

Appellants argue

the claims are directed to more than that, and in fact recite novel methods and systems for providing a merchant with a small-to-medium enterprise (SME) business platform which not only facilitates purchase transactions, but also provides business data (such as analytics data and/or customer data) to the owner of the SME (*i.e.*, the merchant) [that] can be used to grow the business.

App. Br. 17.

This argument is unpersuasive. The fact that the limitations do not recite *only* abstract ideas does not negate the fact that each step of claim 1 reasonably can be characterized as reciting abstract ideas. The fact that the claim recites more than abstract ideas is better addressed in step 2A, prong 2, and step 2B of the of the 2019 Guidance.

As for the recited abstract ideas, themselves, claim 1’s limitation [vi] recites the step of transmitting information (an SME business platform). Prior to the advent of the Internet, information often was delivered manually. For example, a first party could transmit information contained on paper or on a computer disk to a receiving party either by means of hand-delivery or by mail. Such acts reasonably can be characterized as managing personal interactions between people. Managing such personal interactions

constitutes a particular type of organizing human activity—a category of abstract idea that is recognized by the 2019 Guidance.

Limitation [vi] additionally recites that the particular version of the SME business platform that is transmitted is based on various requirements. Prior to the advent of the Internet, it was a long-known practice for a business to make different versions of their products available and to provide customers a particular version of the product based upon the customer's needs. Deciding which version of an SME business platform to provide a merchant, then, reasonably can be characterized as an evaluation or judgment that was undertaken in the human mind. Such mental processes are another category of an abstract idea that is recognized by the 2019 Guidance.

Each of claim 1's other limitations recite abstract ideas, as well. Limitations [i], [iv], [v], [vii], and [ix] recite receiving or transmitting various types of requests and data (or jointly, "information"). Such acts of receiving and transmitting information reasonably may be characterized managing personal behavior or relationships or interactions between people. As such, we agree with the Examiner that these steps reasonably can be characterized as an abstract idea—certain methods of organizing human activity. *See* Ans. 3–4.

Claim 1's limitations [ii], [iii], and [viii] recite steps of making various types of determinations based upon various types of information. These steps of evaluation or judgment reasonably can be characterized as entailing concepts that can be performed in the human mind alone or with

the aid of pencil and paper. As such, this second set of steps reasonably can be characterized as reciting mental processes.

The fact that the noted limitations of claim 1 reasonably can be characterized as reciting plural types of abstract ideas—as opposed to a single abstract idea—is of no moment. Our reviewing court has held that combining several abstract ideas does not render the combination any less abstract. *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (“Adding one abstract idea . . . to another abstract idea . . . does not render the claim non-abstract.”); *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (patent-ineligible claims were directed to a combination of abstract ideas).

Step 2A, Prong 2

We next inquire as to whether claim 1 integrates the recited abstract ideas into a practical application, according to step 2A, prong 2, of the 2019 Guidance. In this regard, Appellants argue that “the elements of the pending claims provide meaningful limitations that add more than generally linking use of an abstract idea to generic computing devices.” App. Br. 20. Appellants further argue that “[i]n particular, the numerous limitations within the elements of the independent claims are directed to a specific method for providing low cost, electronic business services solutions to SME owners that is narrower than the alleged abstract idea of ‘applying for and receiving financial accounts and business tools.’” *Id.* Appellants additionally argue that

[m]oreover, the claims solve a problem rooted in electronic business services technology by specifying interactions between a merchant issuer FI computer, a merchant device of an SME,

and a payment processing computer that are manipulated to yield a result in a manner that is different from conventional processes and thus novel.

Id.

These arguments are unpersuasive. Mere unsupported assertions that that the claims solve a problem rooted in electronic-business-services technology do not constitute sufficient evidence that the claimed invention, in fact, actually improves the functioning of a computer or solves problems that are technological in nature. *See* MPEP § 2106.05(a).

We, instead, understand the invention merely to entail improving business processes by automating the transmission of software packages (or SME business platforms), and thereby making the transmitted software easier to obtain and use. Appellants' Specification describes the invention as follows:

The present inventors recognized that a need exists for a complete electronic business platform available to small and medium size business entities in developed and developing markets that functions to help them to improve their business processes (for example, to improve their cash register, inventory management, payments and collections, settlement, reconciliation, analytics, loyalty and rewards practices). In particular, the inventors recognized that there is a need for a Business-to-Business platform that can be easily obtained, that is inexpensive, easy to use, and that provides opportunities for adding value-added services which may be provided to consumers, merchants and/or financial institutions.

Spec. 2:28–3:4.

Not only do Appellants' claims lack any recitations of improvements to technology, the claims, likewise, do not demonstrate that the invention entails the use of a particular machine or includes any other meaningful limitations. *See* §§ 2106.05(b), (e). To the extent that claim 1 recites

additional elements beyond the abstract idea, these additional elements merely are recited at a high level of generality. For example, limitations [i] and [vii] merely recite the additional element, “by a merchant issuer [financial institution (FI)] computer from a merchant device.” Limitations [ii], [iii], and [v] merely recite “by the merchant issuer FI computer.” Limitation [ix] merely recites “by the merchant issuer FI computer to the merchant device.”

Appellants note that limitation [vi] recites the following language:

*transmitting, by the merchant issuer FI computer an SME business platform to the merchant device, wherein **the SME business platform is based on requirements of the SME and comprises a low cost payment card account acceptance application and at least one business services application, wherein the SME business platform is configured for running on the merchant device and is supported by the payment processing computer;***

Reply Br. 5.

Appellants argue that this language, for example, adds meaningful limitations that make the claim patent eligible:

[T]he transmitted SME business platform is based on the requirements of the SME, is configured for running on the merchant device, and is supported by a payment processing computer. In addition, after the merchant FI computer receives SME purchase transaction data, it determines, *based on the SME purchase transaction data and the requirements of the SME, business data comprising at least one of analytics data and customer data related to customer trends* and then transmits *to the merchant device, the business data for use in improving business operations*. Accordingly, the focus of claim 1 as a whole is to provide a small to medium-sized business owner with a low-cost SME business platform (configured for running on the merchant's device) that provides payment acceptance options

while at the same time provides customer information which can be used by the SME owner to increase revenues.

Id. (citing Spec. 4:18–5:4).

This argument is unpersuasive. As just noted above in the section of the Analysis addressing step 2A, prong 1, of the 2019 Guidance, claim 1’s step [vi] broadly entails an issuer (1) determining which version of a software platform a merchant should possess and (2) transmitting that version to the merchant. The fact that these steps are carried out more specifically by a “merchant issuer FI computer” and that the software more specifically is sent to a “merchant device” does not evidence that the limitation recites a particular machine or adds any meaningful limitation.

Furthermore, the SME platform, once installed on the merchant device, merely transmits SME purchase transaction data to the merchant issuer FI computer (step vii). The merchant issuer FI computer then “determin[es] . . . business data” based on the received SME purchase transaction data (step viii), and transmits the business data for use by the merchant device (step ix). The SME platform, then, is merely broadly claimed software that performs combinations of transmitting, receiving, analyzing, and using data. This is what conventional software does. Appellants provide insufficient evidence that transmitting information and software applications requires a particular machine or adds meaningful limitations. *See generally* App. Br.; *see also generally* Reply Br.

Appellants also argue, relatedly, that the claims are not directed to an abstract idea by virtue of the fact that “the Office has tacitly admitted that the claimed methods and systems are novel because none of the claims have been rejected based on any prior art.” App. Br. 17.

This argument is unpersuasive. “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.” *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981). A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent ineligible. *See Mayo*, 566 U.S. at 90; *see also Parker v. Flook*, 437 U.S. at 594–95 (holding claims to “a new and presumably better method for calculating alarm limit values,” of undisputed usefulness, to be directed to patent-ineligible subject matter); *see also Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013) (“Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.”).

Appellants additionally argue that the claims are not patent ineligible because the claims do not preempt or “tie up all applications for ‘applying for and receiving financial accounts and business tools[,]’ as alleged.” App. Br. 22. This argument also is unpersuasive.

We recognize that the Supreme Court has described “the concern that drives this exclusionary principle [i.e., the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption.” *Alice*, 573 U.S. at 216. However, characterizing preemption as a driving concern for patent eligibility is not the same as characterizing preemption as the sole test for patent eligibility.

As our reviewing court has explained: “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis.” *Ariosa Diagnostics, Inc. v.*

Sequenom, Inc., 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 573 U.S. at 216). Although “preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

Step 2B

In relation to step 2B of the *Alice* inquiry and 2019 Guidance, the Examiner determines that “analyzing customer data to improve business operations and processing purchase transactions are well-understood, routine and conventional in the sales field.” Final Act. 7; *see also* MPEP § 2106.05(d).

Appellants do not dispute that the claimed additional computer elements that go beyond the abstract idea, when viewed individually, were conventional. Appellants instead imply that although the additionally recited claim elements individually were conventional, it is how these conventional elements are combined that adds significantly more:

just like in *Bascom*,⁵ the inventive concept can be found in the pending claims in the non-conventional process involving a non-generic arrangement of known, conventional elements because the elements recited by the independent claims . . . provide meaningful limitations that add more than generally linking use of an abstract idea to generic computing devices.

App. Br. 20.

Appellants’ Specification also supports the Examiner’s determination that the claimed computer components, viewed individually, were well understood, routine, and conventional. For example, Appellants’

⁵ *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016).

Specification indicates that the claimed merchant device could be practiced with various types of conventional components.

[T]he merchant device 102 may be, for example, a [point-of-sale (POS)] terminal or a merchant's mobile device (such as a suitably programmed mobile telephone, or a personal digital assistant (PDA) with communication capabilities, or a tablet computer with communications capabilities). . . . If the SME's merchant device is a mobile device, such as a smartphone or tablet computer or laptop computer, it may also be configured to operate for the most part in a conventional manner, and be configured to be programmed to function in accordance with one or more processes described herein. For example, a micro-business owner may utilize a smartphone to accept electronic payments, track inventory, and to obtain and view customer analytical data, as described herein.

Spec. 7:1–24.

Appellants' Specification also indicates that the invention can be practiced with any conventional type of Internet connection:

One skilled in the art would understand that many different types of secured or unsecured network connections could be utilized, which may be based on the sensitivity of data being processed and/or communicated, and the like. In addition, for ease of understanding, the SME system 100 generally shows only components that are involved in providing SME business services and for handling one purchase transaction, but in practice many more devices representing, for example, a plurality of merchant devices and merchant issuer FIs may be included.

Spec. 8:6–12.

Appellants do not persuade us that claim 1's additional elements, even when viewed in combination, produce a non-conventional and non-generic arrangement of known, conventional pieces. App. Br. 20 (citing *Bascom*, 827 F.3d at 1350). As we already discussed, *supra*, Appellants' claimed

elements, in combination, may set forth a system that is improved relative to the prior art by virtue of automating a previously manual process. However, that presumed fact would not mean that the elements, as combined, are directed to anything other than well-understood, routine, and convention activity. Unlike the invention of *Bascom*, Appellants do not allege that the elements, as combined produce a result that differs or goes beyond what one would expect from combining the individual conventional computer elements.

Appellants merely argue that the arrangement is not well-understood, routine, convention by virtue of the fact that the claims recite novel subject matter. This argument is unpersuasive because “[t]he ‘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.

DECISION

For the foregoing reasons, Appellants have not shown that the Examiner erred in rejecting representative claim 1 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

The Examiner’s decision rejecting claims 1, 2, 4–10, 12–16, 19, and 21–25, therefore, is affirmed.

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED