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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ISAAC SAFT and NOAM GUZMAN

Appeal 2018-008791
Application 14/272,825[1]
Technology Center 3600

Before ST. JOHN COURTENAY, III, MARC S. HOFF, and KRISTEN L. DROESCH, *Administrative Patent Judges*.

HOFF, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a Final Rejection of claims 1–8, 10–18, 21, and 22.[2] We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

Appellants' invention is a method and system for predicting a likelihood of success of a potential value-added tax (VAT) reclaim. The method includes receiving at least one VAT receipt; analyzing, by a server, the VAT receipt, including determining, via digital image recognition,

[1] Appellants state that the real party in interest is Vatbox, Ltd. Appeal Br. 3.
[2] Claims 9, 19, and 20 have been cancelled.

information contained in the VAT receipt and whether a portion of the receipt is obscured; retrieving at least one VAT success parameter, including at least one obscurity success parameter; and determining the likelihood of success of the potential VAT reclaim based on a computed success measure. Abstract; Spec. ¶¶ 34, 39, 51–54.

Claim 1 is reproduced below:

> 1. A computerized method for predicting a likelihood of success of a potential value-added tax (VAT) reclaim, comprising:
> receiving, by a server including a digital image processor, at least one VAT receipt;
> analyzing, by the server, the at least one VAT receipt, wherein the analysis includes at least determining, via digital image recognition, information contained in the at least one VAT receipt and whether a portion of each VAT receipt is obscured;
> retrieving, based on the VAT receipt analysis, at least one VAT success parameter, wherein the at least one VAT success parameter includes at least one obscurity success parameter, wherein each obscurity success parameter represents a relative obscurity of an obscured portion with respect to one of the at least one VAT receipt;
> computing a success measure using the at least one VAT success parameter; and
> determining, based on the computed success measure, the likelihood of success of the potential VAT reclaim.

Claims 1–8, 10–18, 21, and 22 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Throughout this decision, we make reference to the Appeal Brief ("App. Br.," filed [Mar. 20, 2018]), the Reply Brief ("Reply Br.," filed [Sept. 12, 2018]), and the Examiner's Answer ("Ans.," mailed [July 12, 2018]) for their respective details.

ISSUES

Does the claimed invention recite an abstract idea?

PRINCIPLES OF LAW

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. *See, 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, 192 (1981)); "tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores" (*id.* at 184 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 at 176; *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"). 84 Fed. Reg. 50. 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.

ANALYSIS

SECTION 101 REJECTION

With regard to subject matter eligibility, Appellants make a unitary argument directed to all pending claims. App. Br. 6–9. Accordingly, we select independent claim 1 as representative of the rejected claims.

Claim 1 recites the following limitations:

(a) receiving, by a server including a digital image processor, at least one VAT receipt;

(b) analyzing, by the server, the at least one VAT receipt, wherein the analysis includes at least determining, via digital image recognition, information contained in the at least one VAT receipt and whether a portion of such VAT receipt is obscured;

(c) retrieving, based on the VAT receipt analysis, at least one VAT success parameter, wherein the at least one VAT success parameter includes at least one obscurity success parameter, wherein each obscurity success parameter represents a relative obscurity of an obscured portion with respect to one of the at least one VAT receipt;

(d) computing a success measure using the at least one VAT success parameter; and

(e) determining, based on the computed success measure, the likelihood of success of the potential VAT reclaim.

These limitations, under the broadest reasonable interpretation, constitute a plurality of steps to receive a value added tax (VAT) receipt, analyze it to determine whether a portion of the receipt is obscured, and determine the likelihood of success of a potential VAT reclaim given said

obscured portion. The claim limitations recite the operations that would ordinarily be performed by a person giving an opinion concerning the likelihood a VAT reclaim will succeed, combined with a recitation that information is determined, by a server, via digital image recognition.

Limitation (a) corresponds to a person or entity receiving a receipt. Limitations (b) and (c) correspond to examining the receipt and determining whether any portion of the receipt is obscured, and to what extent it is obscured. Limitations (d) and (e) correspond to calculation of the likelihood that submission of the VAT receipt will result in customer reimbursement.

The Memorandum recognizes that certain groupings of subject matter have been found by the courts to constitute judicially excepted abstract ideas: (a) mathematical concepts, (b) certain methods of organizing human activity, and (c) mental processes. Memorandum, 84 FR at 52. We regard the claimed limitations of (1) examining a receipt and determining whether any portion of the receipt is obscured, and to what extent it is obscured, (2) computing a success measure using a VAT success parameter, and (3) determining the likelihood of success of a potential VAT reclaim based on that computed success measure, *without more*, to constitute a mental process classified as an abstract idea under the Memorandum. Examining a receipt to determine if any portions are obscured, and computing a score indicating the likelihood one would be successful in pursuing a VAT reclaim, *without more*, constitute concepts that could be performed in the human mind. If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is

still in the mental processes category unless the claim cannot practically be performed in the mind.[3]

[3] *See Intellectual Ventures I LLC* v. *Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) ("[W]ith the exception of generic computer implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper."); *Mortg. Grader, Inc.* v. *First Choice Loan Servs. Inc.*, 811 F.3d. 1314, 1324 (Fed. Cir. 2016) (holding that computer-implemented method for "anonymous loan shopping" was an abstract idea because it could be "performed by humans without a computer"); *Versata Dev. Grp.* v. *SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) ("Courts have examined claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person's mind."); *CyberSource Corp.* v. *Retail Decisions, Inc.*, 654 F.3d 1366, 1375, 1372 (Fed. Cir. 2011) (holding that the incidental use of "computer" or "computer readable medium" does not make a claim otherwise directed to process that "can be performed in the human mind, or by a human using a pen and paper" patent eligible); *id.* at 1376 distinguishing *Research Corp. Techs.* v. *Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010), and *SiRF Tech., Inc.* v. *Int'l Trade Comm'n*, 601 F.3d 1319 (Fed. Cir. 2010), as directed to inventions that "could not, as a practical matter, be performed entirely in a human's mind"). *Mayo*, 566 U.S. at 71 ("'[M]ental processes[ ] and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work'" (quoting *Benson*, 409 U.S. at 67)); *Flook*, 437 U.S. at 589 (same); *Benson*, 409 U.S. at 67, 65 (noting that the claimed "conversion of [binary-coded decimal] numerals to pure binary numerals can be done mentally," *i.e.*, "as a person would do it by head and hand."); *Synopsys, Inc.* v. *Mentor Graphics Corp.*, 839 F.3d 1138, 1139, (Fed. Cir. 2016) (holding that claims to the mental process of "translating a functional description of a logic circuit into a hardware component description of the logic circuit" are directed to an abstract idea, because the claims "read on an individual performing the claimed steps mentally or with pencil and paper"); *In re BRCA1 & BRCA2-Based Hereditary Cancer Test Patent Litig.*, 774 F.3d 755, 763 (Fed. Cir. 2014) (concluding that concept of "comparing BRCA sequences and determining the existence of alterations" is an "abstract mental process"); *In*

Appellants argue, however, that the claims require digital image recognition and therefore cannot be performed in the human mind. Appeal Br. 7. Appellants contend that the use of digital image recognition means that likelihood of success is determined in a way that is distinct from any mental process. According to Appellants, a customs official could *subjectively* evaluate the relative obscurity of a VAT receipt, and assign a likelihood of success, but such an evaluation "would naturally lead to inconsistencies due to differences in determined likelihoods among customs officials." Appeal Br. 7–8 (emphasis added).

Appellants further argue that the distinction between the described subjective mental process and the claimed process including digital image recognition is analogous to the distinction between the subjective process performed by human animators and the rules-based computational process at issue in *McRO Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed Cir. 2016). The *McRO* court found that the invention at issue realized computer animation by improving the prior art through "the use of rules, rather than artists, to set the morph weights and transitions between phonemes." *Id*. at 1313. The court held that "the claimed improvement here is allowing computers to produce 'accurate and realistic lip synchronization

re Brown, 645 F. App'x. 1014, 1017 (Fed. Cir. 2016) (non-precedential) (claim limitations "encompass the mere idea of applying different known hair styles to balance one's head. Identifying head shape and applying hair designs accordingly is an abstract idea capable, as the Board notes, of being performed entirely in one's mind").

and facial expressions in animated characters" that previously could only be produced by human animators. *Id*.

We agree with Appellants that the claimed requirement of analysis of the VAT receipt *by a server*, including determining information contained in the receipt and potential obscurity of the receipt *via digital image recognition*, serves to remove the *subjectivity* that would be inherent in having a human inspect a VAT receipt visually and come up with a quantified likelihood of success. Appeal Br. 8. We agree with Appellants that the recitation of digital image recognition, performed by a server, means that the claimed invention cannot practically be performed in the mind. Whether or not the claimed invention affirmatively recites "rules" in the same way that *McRO's* claimed invention recites rules, it is inherent in the claimed invention that the server tasked with analyzing a digitally imaged VAT receipt would follow pre-set rules in order to assign the value of the claimed "obscurity success parameter." Appellants disclose that "obscurity is associated with a success parameter that varies depending on the area of the VAT receipt that is obscured relative to the total receipt area and upon the location of the obscurity relative to the rest of the receipt." Spec. ¶ 54.

The *McRO* court concluded that, when looked at as a whole, the claimed invention was "directed to a patented, technological improvement over the existing, manual 3-D animation techniques." *McRO*, 837 F.3d at 1316. The claimed invention was determined to use "the limited rules in a process specifically designed to achieve an improved technological result in conventional industry practice." *Id*. Similarly, we determine that the invention under appeal is directed, through the use of digital image recognition, to a technological improvement over the subjective evaluation

of VAT receipts. We thus determine, as in *McRO*, that the claims do not recite an abstract idea.

SUBJECT MATTER ELIGIBILITY - CONCLUSION

Because we determine that the claims do not recite an abstract idea, we need not proceed to consider whether any such abstract idea is integrated into a practical application, or whether the claim recites additional elements that constitute an inventive concept. We conclude that the Examiner erred in rejecting the claims under 35 U.S.C. § 101. We do not sustain the Examiner's rejection of claims 1–8, 10–18, 21, and 22.

CONCLUSION

The claimed invention does not recite an abstract idea.

ORDER

The Examiner's decision to reject claims 1–8, 10–18, 21, and 22 under 35 U.S.C. § 101 is reversed.

REVERSED