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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PETER GROARKE

Appeal 2019-000949
Application 13/470,664
Technology Center 3600

BEFORE JENNIFER L. McKEOWN, LINZY T. McCARTNEY, and
BETH Z. SHAW, *Administrative Patent Judges*.

SHAW, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 3–10, and 12–20. Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “Applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Mastercard International Incorporated. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to applying coupon rules to a financial transaction. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for applying coupon rules to a financial transaction, comprising:
 - storing, in a database of a processing server, a plurality of coupon rules, wherein each coupon rule of the plurality of coupon rules is associated with a consumer account and a merchant and includes at least an amount modifier and a funding account associated with a coupon funding provider;
 - receiving, by a receiving device of the processing server, an authorization request for a financial transaction, wherein the authorization request includes at least a consumer identifier, a merchant identifier, and a transaction amount;
 - identifying, in the database of the processing server, two or more of the plurality of coupon rules where the associated consumer account corresponds to the consumer identifier and the associated merchant corresponds to the merchant identifier;
 - transmitting, by the processing server to a consumer mobile device, the two or more of the plurality of coupon rules identified for display on the consumer mobile device;
 - modifying, by the processing server, the financial transaction based on the two or more of the plurality of coupon rules wherein modifying the financial transaction includes at least modifying the transaction amount based on the amount modifier of each of the two or more of the plurality of coupon rules and splitting the financial transaction into a first financial transaction including a first charge amount and a second financial transaction including a second charge amount, wherein the first charge amount is the modified transaction amount and is charged to the consumer account based on the consumer identifier and the second charge amount is a sum of an amount deducted by the two or more of the plurality of coupon rules and is charged to the funding account associated with the coupon funding provider;

transmitting, by a transmitting device of the processing server, a reply to the authorization request, the reply to the authorization request including at least the modified transaction amount;

transmitting, by the transmitting device of the processing server, a credit transaction to the coupon funding provider, the credit transaction including at least the second charge amount; and

receiving, by the consumer mobile device, coupon rule details identifying the two or more of the plurality of coupon rules applied to the financial transaction after the credit transaction is approved;

wherein the transmitting of the reply to the authorization request and the credit transaction occur contemporaneously.

REFERENCES

The prior art relied upon by the Examiner is:

Hammad et al.	US 2005/0071227 A1	Mar. 31, 2005
White et al.	US 2008/0133351 A1	June 5, 2008
Cervenka et al.	US 2011/0047019 A1	Feb. 24, 2011

REJECTIONS

The Examiner rejected claims 1, 3–10, and 12–20 under 35 U.S.C. § 101.

The Examiner rejected claims 1, 3–10, and 12–20 under 35 U.S.C. § 103(a) as being unpatentable over White, Hammad, and Cervenka.

OPINION

Section 101 Rejection

CONTENTIONS AND ANALYSIS

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. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quotation marks and citation omitted).

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, 67 (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 (1853))); 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, 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., Diehr*, 450 U.S. 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.*

The U.S. Patent and Trademark Office (“USPTO”) recently published revised guidance on the application of § 101. USPTO’s *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Revised Guidance”). Under that Revised 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* MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) §§ 2106.05(a)–(c), (e)–(h) (9th Ed., Rev. 08.2017, Jan. 2018)).

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 Revised Guidance.

Abstract Idea

For the following reasons, we conclude the claims recite a fundamental economic practice, which is one of certain methods of organizing human activity identified in the Revised Guidance, and thus an abstract idea. *See* Revised Guidance, 84 Fed. Reg. at 52, 53 (listing “[c]ertain methods of organizing human activity—fundamental economic principles or practices” as one of the “enumerated groupings of abstract ideas”).

Appellant addresses the claims as a group, and we treat claim 1 as representative. The claim is directed to an abstract idea because it is directed to a fundamental economic practice, which is one of certain methods of organizing human activity, as discussed below. The steps of claim 1, including, with italics,

storing, in a database of a processing server, a plurality of coupon rules, wherein each coupon rule of the plurality of coupon rules is associated with a consumer account and a merchant and includes at least an amount modifier and a funding account associated with a coupon funding provider;

receiving, by a receiving device of the processing server, an authorization request for a financial transaction, wherein the authorization request includes at least a consumer identifier, a merchant identifier, and a transaction amount;

identifying, in the database of the processing server, two or more of the plurality of coupon rules where the associated consumer account corresponds to the consumer identifier and the associated merchant corresponds to the merchant identifier;

transmitting, by the processing server to a consumer mobile device, the two or more of the plurality of coupon rules identified for display on the consumer mobile device;

modifying, by the processing server, the financial transaction based on the two or more of the plurality of coupon rules wherein modifying the financial transaction includes at

least modifying the transaction amount based on the amount modifier of each of the two or more of the plurality of coupon rules and splitting the financial transaction into a first financial transaction including a first charge amount and a second financial transaction including a second charge amount, wherein the first charge amount is the modified transaction amount and is charged to the consumer account based on the consumer identifier and the second charge amount is a sum of an amount deducted by the two or more of the plurality of coupon rules and is charged to the funding account associated with the coupon funding provider;

transmitting, by a transmitting device of the processing server, a reply to the authorization request, the reply to the authorization request including at least the modified transaction amount;

transmitting, by the transmitting device of the processing server, a credit transaction to the coupon funding provider, the credit transaction including at least the second charge amount;
and

receiving, by the consumer mobile device, coupon rule details identifying the two or more of the plurality of coupon rules applied to the financial transaction after the credit transaction is approved;

wherein the transmitting of the reply to the authorization request and the credit transaction occur contemporaneously

recite steps of applying coupon rules to a financial transaction.

Under Supreme Court precedent, claims directed purely to an abstract idea are patent ineligible. As set forth in the Revised Guidance, which extracts and synthesizes key concepts identified by the courts, abstract ideas include (1) mathematical concepts, (2) certain methods of organizing human activity, and (3) mental processes. Among those certain methods of organizing human activity listed in the Revised Guidance are fundamental economic practices, such as the concept of intermediated settlement in *Alice*, and the concept of hedging in *Bilski*. Like those concepts, claim 1 also

recites a fundamental economic practice. Specifically, the italicized steps fall under the umbrella of economic practices, including managing transactions or sales activities, because “applying coupon rules to a financial transaction” would ordinarily take place in a sale or market transaction, which occurs in our system of commerce. The “financial transaction” described in the claim is an economic act that takes place in our system of commerce. *See* Spec. ¶ 20 (“Financial Transaction - An event that involves the exchange of money or payment between two parties. For example, a consumer purchasing goods or services from a merchant, a borrower borrowing money from a lender, a consumer giving a bank money for deposit in a bank account, etc.”).

Claim 1 is similar to claims that courts have concluded recite a fundamental economic practice. *See, e.g., Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (determining that hedging risk is a “fundamental economic practice long prevalent in our system of commerce”); *Alice*, 573 U.S. at 219–20 (determining that intermediated settlement is a fundamental economic practice); *see also* Revised Guidance 84 Fed. Reg. at 52 n.13; *Intellectual Ventures I LLC v. Capital One Bank*, 792 F.3d 1363 (Fed. Cir. 2015) (an advertisement taking into account the time of day and tailoring the information presented to the user based on that information is another “fundamental . . . practice long prevalent in our system”); *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044 (Fed. Cir. 2017) (patent claims directed to a system and method for providing financing to allow a customer to purchase a product selected from an inventory of products maintained by a dealer patent-ineligible are directed to the abstract idea of processing an

application for financing a purchase, an economic practice long prevalent in commerce).

Claim 1 is directed to applying coupon rules to a financial transaction, which is a fundamental economic practice similar to those in *Intellectual Ventures I LLC* and *Credit Acceptance Corp.* Thus, we conclude claim 1 recites a fundamental economic practice, which is one of certain methods of organizing human activity identified in the Revised Guidance, and thus an abstract idea.

In accordance with the Revised Guidance, and looking to MPEP §§ 2106.05(a)–(c) and (e)–(h), we determine that the additional elements of claim 1, both individually and as an ordered combination, do not integrate a judicial exception, in this case the abstract idea of a fundamental economic practice, into a practical application. Claim 1 is directed to little more than the implementation of the abstract idea on generic computer servers and devices. The claim, as a whole, describes how to generally apply or execute the concept of applying coupon rules to a financial transaction. The claimed “database,” “transmitting device,” and “receiving device” “of a processing server” and “consumer mobile device” are recited at a high level of generality and merely invoked as tools to perform the process of claim 1. Simply implementing the abstract idea on a generic computer is not a practical application of the abstract idea. *See, e.g.,* Spec. ¶ 36–40, Fig. 3 (“any type of suitable database configuration . . . apparent to persons having skill in the relevant art.”)

Accordingly, the claim as a whole does not integrate the abstract idea into a practical application because the claim limitations do not impose any meaningful limits on practicing the abstract idea. Stated differently, the

claims do not (1) improve the functioning of a computer or other technology, (2) are not applied with any particular machine (except for generic computer components), (3) do not effect a transformation of a particular article to a different state, and (4) are not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim, as a whole, is more than a drafting effort designed to monopolize the exception. *See* MPEP §§ 2106.05(a)–(c), (e)–(h).

Inventive Concept

Because we determine that claim 1 is “directed to” an abstract idea, we next consider whether claim 1 recites an “inventive concept.” The Examiner determined that claim 1 does not recite an inventive concept because the additional elements in the claim do not amount to “significantly more” than an abstract idea. *See* Final Act. 3–4.

We agree with the Examiner’s determination in this regard. The additional elements recited in claim 1 include the “database,” “transmitting device,” and “receiving device” “of a processing server” and a “consumer mobile device.” The claim recites these elements at a high level of generality, and the written description indicates that these elements are generic ones. *See, e.g.*, Spec. ¶¶ 36–40, Fig.3 (“any type of suitable database configuration . . . apparent to persons having skill in the relevant art.”) Using generic computer components to perform abstract ideas does not provide the necessary inventive concept. *See Alice*, 573 U.S. at 223 (“[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.”). Thus, these elements, taken

individually or together, do not amount to “significantly more” than the abstract idea itself.

Appellant argues the claims are analogous to *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016). Appeal Br. 12, 13. We have considered Appellant’s arguments in light of *BASCOM*, and, for the reasons set forth below, we conclude *BASCOM* does not alter our determination that the claims do not include an inventive concept—an element or combination of elements sufficient to ensure that the claim amounts to significantly more than the abstract idea and to transform the nature of the claim into a patent-eligible concept.

In *BASCOM*, the court determined at the pleading stage and decided in favor of the nonmovant,

[t]he inventive concept described and claimed . . . is the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user. This design gives the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server. *BASCOM* explains that the inventive concept rests on taking advantage of the ability of at least some ISPs to identify individual accounts that communicate with the ISP server, and to associate a request for Internet content with a specific individual account.

Id. at 1350 (emphasis added).

Notably, this customizable filtering solution improved the computer system’s performance and, therefore, was patent-eligible. *See id.* But unlike the filtering system improvements in *BASCOM* that added significantly more to the abstract idea in that case, the claimed invention here uses generic computing components to implement an abstract idea, as noted previously.

Nor is this invention analogous to that which the court held eligible in *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) despite Appellant’s arguments to the contrary (Appeal Br. 11, 12; Reply Br. 3). There, the claimed process used a combined order of specific rules that rendered information in a specific format that was applied to create a sequence of synchronized, animated characters. *McRO*, 837 F.3d at 1315. Notably, the recited process *automatically animated characters* using particular information and techniques—an improvement over manual three-dimensional animation techniques that was not directed to an abstract idea. *Id.* at 1316.

But unlike the claimed invention in *McRO* that improved how the physical display operated to produce better quality images, the claimed invention here merely uses generic computing components to apply coupon rules. This generic computer implementation is not only directed to fundamental human activity organization, but also does not improve a display mechanism, as was the case in *McRO*. See *SAP Am. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (distinguishing *McRO*).

Accordingly, we sustain the Examiner’s rejection of the pending claims under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

Section 103 Rejection

Appellant argues

the independent claims set forth *two separate* messages that are being transmitted contemporaneously. The first message is a reply to the authorization request, and the second message is a credit transaction to the coupon funding provider. White, in contrast, only contemplates a *single* message where the

"rewards messaging" is appended to the authorization response message.

Appeal Br. 17. Appellant argues none of the cited portions of White “describe any *contemporaneous* transmissions of i) the *reply to the authorization request* and ii) the *credit transaction* based on two or more rules, as recited in the claims.” *Id.* at 16. Rather, Appellant argues, White sends a “single” message where the “rewards messaging” is “appended” to the authorization response message. *Id.* at 18.

We are persuaded by Appellant’s arguments because the Examiner has not explained sufficiently how the cited portions of White teach transmitting a reply to the authorization request (although to whom this reply is sent is not clear from the claim) and also transmitting a “credit transaction *to the coupon funding provider.*” Rather, the Examiner points out that White teaches “the reward amount and messaging are appended to the authorization message.” Ans. 6 (citing White ¶ 66–68).² However, the record does not explain how there is a transmission of a credit transaction including the second charge amount (the sum of the amount deducted by the two or more of the plurality of coupon rules) to the coupon funding provider.

Accordingly, on this record, we do not sustain the Examiner’s rejection of the pending claims under 35 U.S.C. § 103.

² In the event of further prosecution, however, the Examiner may wish to reevaluate the claims for compliance with 35 U.S.C. § 112. For example, the Examiner may consider if the Specification shows written description support for all the disputed elements of claim 1, including transmitting a credit transaction “to the coupon funding provider, the credit transaction including at least the second charge amount,” and “wherein the transmitting of the reply to the authorization request and the credit transaction occur contemporaneously.” *See* Appeal Br. 2–4.

DECISION

The Examiner's rejection of claims 1, 3-10, and 12-20 under 35 U.S.C. § 101 is affirmed.

The Examiner's rejection of claims 1, 3-10, and 12-20 under 35 U.S.C. § 103 is reversed.

Because we affirm at least one ground of rejection with respect to each claim on appeal, the Examiner's decision rejecting claims 1, 3-10, and 12-20 is affirmed.

DECISION SUMMARY

Claims Rejected	Basis	Affirmed	Reversed
1, 3-10, and 12-20	§ 101	1, 3-10, and 12-20	
1, 3-10, and 12-20	§ 103(a)		1, 3-10, and 12-20
Overall Outcome		1, 3-10, and 12-20	

FINALITY AND RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED