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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NANCY L. KIM

Appeal 2019-003132
Application 14/072,583
Technology Center 3600

Before, ANTON W. FETTING, JOSEPH A. FISCHETTI, and BIBHU R. MOHANTY, *Administrative Patent Judges*

MOHANTY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF THE DECISION

We AFFIRM.

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[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 Visa International Service Association. (Appeal Br. 3).

CLAIMED SUBJECT MATTER

The Appellant's claimed invention relates to the processing of payment transactions and the redemption of benefits of offers (Spec., para. 3). Claim 1, reproduced below with the italics added, is representative of the subject matter on appeal.

> 1. A computer-implemented method, comprising: providing a computing apparatus comprising:
>
> a transaction handler configured in an electronic payment processing network that connects separate computers, including:
>
> transaction terminals configured to initiate transactions of payments in the electronic payment processing network using account information that identify payment accounts;
>
> *first computers controlling the payment accounts from which the payments are made* in the electronic payment processing network;
>
> *second computers controlling merchant accounts in which the payments are received* in the electronic payment processing network; and the transaction handler coupled between the first computers and the second computers;
>
> a data warehouse coupled with the transaction handler; and
>
> a portal coupled with the data warehouse and configured to communicate with users outside the electronic payment processing network;
>
> *receiving*, by the portal of the computing apparatus, *a user input from a user identifying*:
>
> *a loyalty currency source* of the user, and
>
> *a preference of the user in redeeming loyalty currency* from the loyalty currency source;
>
> in response to the user input received by the portal via communications outside the electronic payment processing network, *storing, in the data warehouse, data associating*:
>
> *an account identifier of a consumer payment account* of the user;
>
> *a communication reference of a computing device* of the user of the consumer payment account;
>
> *the preference of the user; and the loyalty currency source*;

determining, by the transaction handler of the computing apparatus based on an offer communication from a transaction terminal of a merchant to the portal of the computing apparatus, wherein the offer communication is associated with a first transaction between the merchant and the user and involving the consumer payment account, *that the user is eligible for an offer that satisfies the preference of the user in redeeming loyalty currency from the loyalty currency source*, *wherein the offer includes*:

a benefit applicable to a second transaction made in the consumer payment account in the electronic payment processing network and satisfying benefit redemption requirements, wherein the benefit includes at least two reductions in a transaction amount of the second transaction, the two reductions including:

a first reduction in a form of a discount sponsored by the merchant when the second transaction is made with the merchant; and a second reduction in a form of redemption of an amount of reduction in a balance of the loyalty currency source;

transmitting, by the portal of the computing apparatus using the communication reference of the computing device of the user associated with the account identifier of the consumer payment account in the data warehouse, *a first message to the computing device of the user identifying the offer*, in response to determining that the user is eligible for the offer;

configuring, by the portal of the computing apparatus, *a trigger record associated with the offer stored by the data warehouse,* wherein configuring the trigger record comprises:

generating, by the portal, *a code based on the account identifier of the consumer payment account of the user and an identifier of the transaction terminal of the merchant, and embedding, by the portal, the code in the trigger record*;

providing the code to the transaction terminal of the merchant based on configuring the trigger record associated with the offer;

processing, by the transaction handler, *the second transaction for authorization*, wherein processing the second transaction for authorization comprises:

receiving, by the transaction handler, *an authorization request associated with the second transaction from the transaction terminal of the merchant*, wherein the authorization request comprises the code generated by the portal;

identifying, by the transaction handler, *the trigger record associated with the offer based on the code included in the authorization request associated with the second transaction*, wherein identifying the trigger record comprises:

matching the code embedded in the trigger record and the code included in the authorization request associated with the second transaction;

after the first message is transmitted to the user, determining, by the transaction handler of the computing apparatus, *that the second transaction satisfies the benefit redemption requirements of the offer based on the code included in the authorization request* associated with the second transaction from the transaction terminal of the merchant;

in response to the second transaction being processed for authorization by the transaction handler, *providing*, by the transaction handler during authorization processing of the second transaction in the electronic payment processing network, *the benefit of the offer to the consumer payment account in exchange for the amount of reduction in a balance of the loyalty currency source*, wherein providing the benefit of the offer to the consumer payment account comprises:

changing the transaction amount specified in the authorization request received by the transaction handler for the second transaction to a reduced transaction amount by applying the first reduction sponsored by the merchant and the second reduction funded by the redemption from the loyalty currency source; and

transmitting a second authorization request for the reduced transaction amount in the consumer payment account from the transaction handler *to an issuer processor of the consumer payment account*;

transmitting, by the portal of the computing apparatus using the communication reference of the computing device of the user associated with the account identifier of the consumer payment account in the data warehouse and during the authorization processing of the second transaction in the electronic payment processing network, *a second message to the computing device of the user about the reduction in the balance of the loyalty currency source in exchange for the benefit of the offer applied to the second transaction in the consumer payment account of the user*; and

> *removing*, by the portal of the computing apparatus, *the trigger record associated with the offer stored by the data warehouse after a predetermined period of time from authorization processing of the second transaction in the electronic payment processing network.*

THE REJECTION

The following rejection is before us for review:

Claims 1–20 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

FINDINGS OF FACT

We have determined that the findings of fact in the Analysis section below are supported at least by a preponderance of the evidence[2].

ANALYSIS

Rejection under 35 U.S.C. § 101

The Appellant argues that the rejection of claim 1 is improper because the claim is not directed to an abstract idea (Appeal Br. 17–20; Reply Br. 2–7). The Appellant argues further that the claim is "significantly more" than the alleged abstract idea (Appeal Br. 20–24; Reply Br. 7–10).

In contrast, the Examiner has determined that the rejection of record is proper (Final Action 2–10; Ans. 3–14).

We agree with the Examiner. 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

[2] *See Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Patent Office).

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, 192 (1981)); "tanning, dyeing, making waterproof 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 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.* (internal citation omitted) (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.").

In January 2019, the published revised guidance on the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Guidance"). Under the 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, i.e., evaluate whether the claim "appl[ies], rel[ies] on, or use[s] the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception." (*see* Guidance, 84 Fed. Reg. at 54; *see also* 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 Guidance.

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 Specification at paragraph 3 states that the invention "relate[s] to payment transactions, such as payments made by credit cards, debit cards, prepaid cards, etc., and the redemption of benefits of offers such as coupons, deals, discounts, rewards, etc.". Here, the Examiner has determined that the claim is drawn to "reducing an amount specified in an authorization request by applying a benefit of an offer to a payment transaction amount in exchange for a reduction in a balance of a loyalty currency" and sets forth to an abstract idea (Ans. 3). We agree in substance with the Examiner. We determine that the claim sets forth the subject matter in italics above for: [1] providing "first computers controlling the payment accounts from which the payments are made"; and providing [2] "second computers controlling

merchant accounts in which the payments are received"; [3] "receiving… a user input from a user identifying: a loyalty currency source …a preference of the user in redeeming loyalty currency"; [4] "storing, in the data warehouse, data associating: an account identifier of a consumer payment account…a communication reference of a computing device …the preference of the user; and the loyalty currency source"; [5] "determining, … that the user is eligible for an offer that satisfies the preference of the user in redeeming loyalty currency from the loyalty currency source, wherein the offer includes: a benefit applicable to a second transaction .., wherein the benefit includes at least two reductions in a transaction amount including: a first reduction in a form of a discount sponsored by the merchant when the second transaction is made with the merchant; and a second reduction in a form of redemption of an amount of reduction in a balance of the loyalty currency source"; [6] "transmitting…a first message to the computing device of the user identifying the offer"; [7] "configuring…a trigger record associated with the offer stored by the data warehouse"; wherein configuring the trigger record comprises [8] "generating… a code based on the account identifier of the consumer payment account of the user and an identifier of the transaction terminal of the merchant, and embedding, by the portal, the code in the trigger record"; [9] "providing the code to the transaction terminal"; [10] "processing … the second transaction for authorization"; wherein processing the second transaction for authorization comprises [11] "receiving…an authorization request associated with the second transaction from the transaction terminal of the merchant"; [12] "identifying… the trigger record associated with the offer based on the code included in the authorization request associated with the second transaction";

wherein identifying the trigger record comprises [13] "matching the code embedded in the trigger record and the code included in the authorization request"; [14] "after the first message is transmitted to the user, determining… that the second transaction satisfies the benefit redemption requirements of the offer based on the code included in the authorization request"; [15] "in response to the second transaction being processed …providing …the benefit of the offer to the consumer payment account in exchange for the amount of reduction in a balance of the loyalty currency source"; wherein providing the benefit of the offer to the consumer payment account comprises [16] "changing the transaction amount specified in the authorization request received by the transaction handler for the second transaction to a reduced transaction amount by applying the first reduction sponsored by the merchant and the second reduction funded by the redemption from the loyalty currency source"; [17] "transmitting a second authorization request for the reduced transaction amount in the consumer payment account from the transaction handler to an issuer processor of the consumer payment account"; [18] "transmitting…a second message to the computing device of the user about the reduction in the balance of the loyalty currency source in exchange for the benefit of the offer applied to the second transaction in the consumer payment account of the user"; and [19] "removing… the trigger record associated with the offer stored by the data warehouse after a predetermined period of time from authorization processing of the second transaction in the electronic payment processing network." Here, claim 1 is drawn to payment processing between users and merchants which includes an offer and benefit transaction which is a certain method of organizing human activity and fundamental economic practice i.e.

a judicial exception. In *Inventor Holdings, LLC v. Bed Bath & Beyond Inc.*, 876 F.3d 1372, 1378 claims directed to the local processing of payments for remotely purchased goods was held to be directed to an abstract idea. In *Buysafe, Inc. v. Google*, *Inc.* 765 F.3d 1350, 1355 (Fed. Cir. 2014) it was held that claims drawn to creating a contractual relationship are directed to an abstract idea. See *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) where collecting information, analyzing it, and displaying results from certain results of the collection and analysis was held to be an abstract idea.

We next determine whether the claim recites additional elements in the claim to integrate the judicial exception into a practical application. *See* Guidance, 84 Fed. Reg. at 54–55. The Revised Guidance references the MANUAL OF PATENT EXAMINING PROCEDURE ("MPEP") §§ 2106.05(a)–(c) and (e)–(h).

Here, the claims do not improve computer functionality, improve another field of technology, utilize a particular machine, or effect a particular physical transformation. Rather, we determine that nothing in the claims imposes a meaningful limit on the judicial exception, such that the claims are more than a drafting effort to monopolize the judicial exception.

For example, in the claim, the additional elements beyond the abstract idea are the recited transaction handler, electronic payment processing network, first and second computers, data warehouse, portal, computing device, and transaction terminal. The claimed limitations of the computer components in the claim "do not purport to improve the functioning of the computer itself," do not improve the technology of the technical field, and do not require a "particular machine." Rather, they are performed using

generic computer components. Further, the claim as a whole fails to effect any particular transformation of an article to a different state. The recited steps in the claim fail to provide meaningful limitations to limit the judicial exception. In this case, the claim merely uses the claimed computer elements as a tool to perform the abstract idea.

Considering the elements of the claim both individually and as "an ordered combination" the functions performed by the computer system at each step of the process are purely conventional. Each step of the claimed method does no more than require a generic computer to perform a generic computer function. Thus, the claimed elements have not been shown to integrate the judicial exception into a practical application as set forth in the Revised Guidance which references the MANUAL OF PATENT EXAMINING PROCEDURE ("MPEP") §§ 2106.05(a)–(c) and (e)–(h).

Turning to the second step of the *Alice* and *Mayo* framework, we determine that the claim does not contain an inventive concept sufficient to "transform" the abstract nature of the claim into a patent-eligible application. Considering the claim both individually and as an ordered combination fails to add subject matter beyond the judicial exception that is not well-understood, routine, and conventional in the field. Rather, the claim uses well-understood, routine, and conventional activities previously known in the art and they are recited at a high level of generality. The Specification at pages 116–120 for example describes using conventional computer components such as microprocessors, mobile phones, modems, and memory in a conventional manner. The claim specifically includes recitations for a computing apparatus using computers to implement the method but the claimed computer components and functions are all used in a manner that is

well-understood, routine, and conventional in the field. Here, the claimed generic computer components which are used to implement the claimed method are well understood, routine, or conventional in the field. Here, the claim has not been shown to be "significantly more" than the abstract idea.

We note the point about pre-emption (Appeal Br. 23, 24). While pre-emption "might tend to impede innovation more than it would tend to promote it, 'thereby thwarting the primary object of the patent laws"' (*Alice*, 134 S. Ct. at 2354 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012)), "the absence of complete preemption does not demonstrate patent eligibility" (*Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015)). *See also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015), cert, denied, 136 S. Ct. 701, 193 (2015)("[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.").

For these above reasons the rejection of claim 1 is sustained. The Appellant has provided the same arguments drawn to the remaining claims which are drawn to similar subject matter and the rejection of these claims is sustained for the same reasons as given above.

CONCLUSIONS OF LAW

We conclude that Appellant has not shown that the Examiner erred in rejecting claims 1–20 under 35 U.S.C. § 101.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	

TIME PERIOD FOR 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