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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JARED S. MORGENSTERN, GEORGE LEE, GUY ROM, and
DANIEL ALAN LEVY

Appeal 2018-000480
Application 13/954,946
Technology Center 3600

Before ST. JOHN COURTENAY III, JUSTIN BUSCH, and
JASON M. REPKO, *Administrative Patent Judges*.

REPKO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants¹ appeal under 35 U.S.C. § 134(a) from the Examiner’s rejection of claims 1, 3–7, 9–18, and 20. *See* App. Br. 1.² Claims 2, 8, and 19 are canceled. *Id.* at 19–20, 25. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

THE INVENTION

Appellants’ invention allows for seeding or discounting credits in a virtual currency system. Abstract. Specifically, the invention uses credits with three types of values: internal, external, and face. *Id.* ¶ 19. The original rate for creating the credits sets the credit’s *internal* value. *Id.* The credit’s exchange rate for real currency sets the *external* value. *Id.* And the value shown to the user is the *face* value. *Id.*

Seeding credits refers to giving credits to users at no cost to the user. Spec. ¶ 56. By using seeded credits, users can try an online game for free, which can be a way to promote the game. *Id.* Creating credits with unique internal and external values allows credit seeding. *Id.* For example, setting the internal value to zero allows credits to be seeded to the user for free. *Id.* ¶ 20.

¹ According to Appellants, the real party in interest is Facebook Inc. of Menlo Park, California. App. Br. 2.

² Throughout this opinion, we refer to the Final Rejection (“Final Act.”), mailed August 3, 2016; the Appeal Brief (“App. Br.”), filed May 1, 2017; the Examiner’s Answer (“Ans.”), mailed August 16, 2017; and the Reply Brief (“Reply Br.”), filed October 17, 2017.

Discounting the external value can lower the credit's redemption value—e.g., setting an external value lower than a service's cost. *Id.* This can occur when the credits are created or accepted as payment by a vendor. *Id.* ¶ 61, 62. In one embodiment, the user purchases credits with an internal value less than the face value. *Id.* ¶ 61. When the user submits the credits to a vendor, the vendor receives less than full value. *Id.* In another embodiment, a vendor accepts a value as payment for a good or service that is less than its actual value. *Id.* ¶ 62. In these examples, the vendor must subsidize the cost of providing the good or service to the user. *Id.*

Claims 1, 13, and 18 are independent. Claim 1 is reproduced below:

1. A computer-implemented method comprising:

storing an account for each of a plurality of participants of a virtual economy;

receiving a request from a vendor to create credits of a virtual currency, the request specifying a preferred activity for a participant to perform to receive the created credits;

recording a number of created credits and a set of attributes associated with the created credits in a data store, the set of attributes including:

a face value of the created credits, the face value being a value of the created credits that is shown to the participant;

an internal value of the created credits, the internal value being an amount of real currency to be received from a participant to be assigned the created credits, and

an external value of the created credits, the external value being an amount of real currency to be provided to the vendor for redeeming the created credits, the external value being greater than the internal value and less than the face value;

querying the data store for a participant of the plurality of participants, the participant being associated with a reduced spending activity in the virtual economy;

responsive to a determination that the participant has performed the preferred activity, recording in the data store an assignment of the created credits to an account of the participant in exchange for receiving an amount of real currency from the participant equaling the internal value of the created credits;

receiving a request to transfer the created credits from the account of the participant to an account of the vendor;

recording in the data store a transfer of the created credits from the account of the participant to the account of the vendor;

receiving a request from the vendor to redeem the created credits;
and

providing an amount of real currency to the vendor, the amount of real currency provided to the vendor equaling the external value of the created credits.

THE REJECTION

Claims 1, 3–7, 9–18, and 20 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 2–5.

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. *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)). Under 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 (quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The PTO recently published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“Memorandum”). Under that guidance, we first look to whether the claim recites:

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

human interactions such as a fundamental economic practice, or mental processes); and

(2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See Memorandum.

ANALYSIS

The Judicial Exception

The Examiner rejects representative³ claim 1 under 35 U.S.C. § 101 because the claims are directed to an abstract idea of currency exchanging and tracking, which is a certain method of organizing human activities. Final Act. 3. For the reasons discussed below, we are not persuaded that the Examiner erred.

Claim 1 recites a method of exchanging and tracking credits. Appellants use the term “credit” to mean “a unit of virtual currency used in

³ Appellants argue claims 1, 3–7, 9–18, and 20 as a group. *See* App. Br. 7–17. We select independent claim 1 as representative of claims 1, 3–7, 9–18, and 20. *See* 37 C.F.R. § 41.37(c)(1)(iv).

the virtual currency system.” Spec. ¶ 18. According to the Specification, a virtual currency system is a way “to exchange goods and services in a virtual online environment.” *Id.* Claim 1’s method is implemented on a computer. The recited method uses a computer to maintain records about participants of a virtual economy and the created credits. The recited credits have a set of attributes that include the face value, internal value, and external value. When the vendor makes a request to redeem the credits, the recited method requires providing an amount of “real currency” equal to the external value of the created credits.

Exchanging and tracking currency is a commercial interaction and a fundamental economic principle or practice. Because claim 1 covers this commercial interaction, claim 1 is directed to subject matter that falls within the group covering certain methods of organizing human activity. *See* Memorandum 10 (explaining that the grouping of certain methods of organizing human activity includes “commercial or legal interactions” and “fundamental economic principles or practices”).

Appellants argue that claim 1 is directed to a narrower concept than “currency exchanging and tracking.” App. Br. 8. According to Appellants, currencies do not conventionally have three values. *Id.* at 11. Appellants argue that this feature is not common. *Id.*; *see also id.* at 14–15. For example, Appellants argue that recording three values is not inherent to currency exchanging and tracking. *Id.* at 11. In Appellants’ view, there are no “brick-and-mortar equivalents to storing different exchange rate values for credits on an individual basis, and therefore the improvements to virtual economies are technological improvements.” *Id.* at 13. Appellants argue that the “U.S. dollar can be used to exchange for the amount of Chinese

Yuan, no matter which one dollar bill one uses.” Reply Br. 5. Appellants argue that, by contrast, the recited credits have an external and internal value on a credit-by-credit basis. *Id.*

The three values are a feature of the recited currency system. Essentially, Appellants’ argument is that the claimed currency system has features not found in existing ones—i.e., it is a new currency system. *Id.* But “a claim for a new abstract idea is still an abstract idea.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016); *see also Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1321 (Fed. Cir. 2016) (“A narrow claim directed to an abstract idea, however, is not necessarily patent-eligible . . .”). So narrowing the abstract idea by using three values for a currency does not render the claim any less abstract.

On this record, we are not persuaded that the Examiner erred in concluding that claim 1 is directed to an abstract idea of currency exchanging and tracking. Final Act. 3.

Integration into a Practical Application

Claim 1 recites features in addition to the abstract idea of currency exchanging and tracking. Namely, claim 1 recites recording and retrieving information about the participants and the credits in a data store in a virtual environment. As we discuss below, these additional elements do not integrate the judicial exception into a practical application. *See* Memorandum 20–22 (citing MPEP § 2106.05(a)–(c), (e)–(h)).

Claim 1 does not purport to improve the functioning of the computer itself or any other technology or technical field. *See Alice*, 573 U.S. at 210, *cited in* MPEP § 2106.05(a). For example, Appellants have not shown that the recited storing and querying data in a virtual environment improves

operating efficiency or reduces storage costs. Rather, claim 1 purportedly improves an economy and only uses a computer as a tool.

For instance, Appellants argue that the claims “improve on conventional virtual economies.” App. Br. 12. According to Appellants, the claims use different internal and external values so vendors and the virtual currency system can subsidize seeded credits. *Id.* at 10, 12 (citing Spec. ¶¶ 3, 4, 57); *see also* Reply Br. 6–7. Appellants argue that the steps encourage economic participation. App. Br. 11–13.

Yet claim 1 does not recite how the computer meaningfully contributes to this objective. As Appellants point out, it is the concept of associating three values with the credits—not the data store or the computer—that allows the credits to be seeded. *Id.* at 10, 12; *see also* Spec. ¶¶ 20, 56. These values are a feature of the currency system, not the computer. In fact, the Specification explains that the recited data store uses a generic database to store the values. *See* Spec. ¶ 30. Thus, claim 1 merely adds generic computer components to support the method’s recordkeeping needs, which is insufficient to integrate the judicial exception into a practical application. *See* MPEP § 2106.05(a).

Appellants also argue that the claims recite that the credits are assigned to a particular participant: one that is associated with reduced spending activity and performs the preferred activity. App. Br. 15; Reply Br. 7. Claim 1, though, does not recite a new way to track these participants. Instead, claim 1 merely recites reduced spending activity as a characteristic of the participant, without any determination or technical solution for arriving at this characterization.

Although a computer and data store are recited, claim 1 does not apply or use the abstract idea in a “particular machine,” as described in *Bilski*. See MPEP § 2106.05(b) (citing *Bilski*, 561 U.S. at 604). For the currency to exist in a computer environment, there must be some representation of currency values stored somewhere. Beyond storing data, the recited data store contributes only nominally or insignificantly to the recited method. See *TLI Commc’ns LLC v. AV Auto, LLC*, 823 F.3d 607, 613 (Fed. Cir. 2016) (explaining that a server used in its ordinary capacity to store images was insufficient to render the claim eligible), *cited in* MPEP § 2106.05(f).

Here, the recited data store and virtual economy merely link the use of the judicial exception to a virtual environment. See Ans. 7. In Appellants’ view, “the claims provide an improvement to virtual economies,” and this “ensures that the claims are not directed to an abstract idea.” App. Br. 11. But following Appellants’ argument to its logical conclusion would exalt form over substance because a competent claim drafter could draft a claim to almost any fundamental economic practice by reciting that it is performed in a virtual economy and records its data in a “data store.” See *Flook*, 437 U.S. at 590 (“The notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance.”), *cited in* MPEP § 2106.05(g), (h). In this way, the involvement of the virtual environment is merely a field of use, which does not integrate the judicial exception into a practical application. Memorandum 19; *see also* MPEP § 2106.05 (f), (h).

Thus, claim 1 does not integrate the judicial exception into a practical application. *See* Memorandum 19–21 (enumerating the above-discussed considerations as part of prong two of step 2A).

The Inventive Concept

Claim 1 also lacks an inventive concept.

As to the inventive concept, Appellants argue that if the claims were directed to currency exchanging and tracking, they would be anticipated or obvious over the prior art. App. Br. 15. Appellants argue claim 1’s subject matter is different from a reference about currency exchanging and tracking that was listed in the Information Disclosure Statement and considered by the Examiner. *Id.* at 17. According to Appellants, the additional limitations ensure that the claims are not merely reciting currency exchanging and tracking, but they provide significantly more than the abstract idea. *Id.* at 15; Reply Br. 7–8. We disagree.

It is not “enough for subject-matter eligibility that claimed techniques be novel and nonobvious in light of prior art, passing muster under 35 U.S.C. §§ 102 and 103.” *SAP Am., Inc. v. Investpic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018); *see also Affinity Labs*, 838 F.3d at 1263 (explaining that “[e]ven assuming” that a particular claimed feature was novel, the problem of abstractness was not avoided). Rather, to determine whether claim 1 provides an inventive concept, we consider the additional elements, individually and in combination, to determine whether (1) they add a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field or (2) simply append well-understood, routine, conventional activities previously known to the

industry, specified at a high level of generality, to the judicial exception.
Memorandum 23.

Under this framework, claim 1's additional elements simply append well-understood, routine, conventional activities to the judicial exception. Specifically, claim 1's additional elements are recording and retrieving information about the participants and the credits in a data store in a virtual environment. Here, the Specification explains that the recited data store simply uses a generically described database. Spec. ¶ 30. Indeed, claim 1 merely uses the data store for recordkeeping, which is well-understood, routine, and conventional. *See* MPEP § 2106.05(d)(II)(iii) (citing *Alice*, 573 U.S. at 224 (creating and maintaining “shadow accounts”); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (updating an activity log)). Considering the elements in combination, Appellants have not shown that the recited storing and querying data improves operating efficiency, reduces storage costs, or otherwise operates in an unconventional way. Thus, the additional elements, individually and in combination, do not provide an inventive concept. *See* Memorandum 23.

Appellants' inventive-concept argument focuses on economic improvements. *See* App. Br. 15–17; Reply Br. 7. According to Appellants, the claimed features improve an economy because they encourage participants with a reduced spending activity to participate. App. Br. 15; Reply Br. 7. In this way, Appellants' alleged inventive concept is the abstract idea. Yet “[i]t is clear from *Mayo* that the ‘inventive concept’ cannot be the abstract idea itself,” and a number of Federal Circuit cases “have held claims ineligible because the only alleged ‘inventive concept’ is the abstract idea.” *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir.

Appeal 2018-000480
Application 13/954,946

2018) (denial of rehearing en banc) (Moore, J., concurring); *see also SAP Am.*, 898 F.3d at 1168 (“What is needed is an inventive concept in the non-abstract application realm.”).

On this record, Appellants have not persuaded us of error in the rejection of representative claim 1 under 35 U.S.C. § 101. Thus, we sustain the Examiner’s rejection of claim 1, 3–7, 9–18, and 20, which are argued as a group. *See n. 3 supra.*

DECISION

We affirm the Examiner’s decision to reject claims 1, 3–7, 9–18, and 20.

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

AFFIRMED