



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/954,948	07/30/2013	Jared S. Morgenstern	26295-24097	7597
87851	7590	03/14/2019	EXAMINER	
Facebook/Fenwick Silicon Valley Center 801 California Street Mountain View, CA 94041			IWARERE, OLUSEYE	
			ART UNIT	PAPER NUMBER
			3687	
			NOTIFICATION DATE	DELIVERY MODE
			03/14/2019	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptoc@fenwick.com  
fwfacebookpatents@fenwick.com

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 2018-000481  
Application 13/954,948  
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

Appellants<sup>1</sup> appeal under 35 U.S.C. § 134(a) from the Examiner’s rejection of claims 1–9, 11–17, 19, and 20. *See* App. Br. 1.<sup>2</sup> Claims 10, 18, and 21 are canceled. *Id.* at 19–20, 22. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

## THE INVENTION

Appellants’ invention allows for targeting offers to virtual-economy participants using the values of the participant’s credits. Spec. ¶¶ 66–69. Specifically, the invention uses credits with two types of values: internal and external. *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.*

Seeding credits refers to giving credits to users at no cost to the user. *Id.* ¶ 56. By using seeded credits, users can try an online game for free, which can be a way to promote the game. *Id.* 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. Some embodiments target offers to participants holding credits with certain assigned values. *Id.* ¶ 67. For instance, a central manager can

---

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

<sup>2</sup> 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.

target offers to users with seeded credits to remove those credits from the virtual currency system or to encourage spending. *Id.*

Claims 1, 9, and 19 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 to create new credits of a virtual currency;

recording a plurality of created credits and a set of attributes associated with the created credits in a data store, the created credits being associated with an identifier and the set of attributes including:

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 a vendor for redeeming the created credits, the external value being greater than the internal value;;  
[sic]

recording, in the data store, an assignment of the created credits to an account of a participant in exchange for receiving real currency equal to the internal value of the created credits from the participant, wherein the assignment records the identifier of the created credits in the account of the participant;

tracking the created credits as the created credits are exchanged among participants in the virtual economy;

querying the data store, using the identifier for the created credits, for accounts of one or more participants assigned to one or more of the created credits; and

targeting an offer to the one or more participants to allow the one or more participants to spend the created credits on the offer.

App. Br. 16–17, Claims Appendix.

#### THE REJECTION

Claims 1–9, 11–17, 19, 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)). 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 183 n.7 (quoting *Corning v. Burden*, 56 U.S. (15 How.) 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. “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 PTO recently published revised guidance on the application of § 101. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (USPTO Jan. 7, 2019) (“Guidance”). 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 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) (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* Guidance, 84 Fed. Reg. at 56.

## ANALYSIS

### *The Examiner's Rejection*

The Examiner rejects representative<sup>3</sup> claim 1 under 35 U.S.C. § 101 because the claim is directed to the abstract ideas of currency exchanging and accounting and the claim does not include additional elements that amount to significantly more than the judicial exception itself. Final Act. 2–4. For the reasons discussed below, we are not persuaded that the Examiner erred.

### *The Judicial Exception*

Viewing the Examiner's rejection through the lens of the Office's recent guidance, we first consider whether the claim *recites* a judicial exception before proceeding to determine whether the claim considered as a whole is *directed to* that exception.

Here, claim 1 recites the business practice of currency exchanging. Appellants use the term “credit” to mean “a unit of virtual currency used in the virtual currency system.” Spec. ¶ 18. In claim 1, the limitations to currency exchanging include (1) assigning credits “in exchange for receiving real currency equal to the internal value of the created credits from the participant,” (2) “the created credits are exchanged among participants in the virtual economy,” and (3) allowing the participants to “spend” the credits.

Claim 1 also recites limitations related to keeping records about how the participants exchange the currency. We understand the Examiner to refer to this aspect as “accounting.” See Final Act. 2–3. In particular, the

---

<sup>3</sup> Appellants argue claims 1–9, 11–17, 19, and 20 as a group. See App. Br. 6–15. We select independent claim 1 as representative of claims 1–9, 11–17, 19, and 20. See 37 C.F.R. § 41.37(c)(1)(iv).

recited method stores or records (1) “an account for each of a plurality of participants of a virtual economy,” (2) “a plurality of created credits and a set of attributes associated with the created credits,” (3) the assignment of credits to the account, and (4) tracked credits.

In this way, claim 1 recites the business practices of currency exchanging and accounting.

Exchanging currency is a commercial interaction and a fundamental economic practice. Because the claimed method creates new credits and maintains records about how the participants exchange the credits, claim 1 recites a concept similar to other economic principles and practices held to be abstract ideas. *See Alice*, 573 U.S. at 219–20 (intermediated settlement); *Bilski*, 561 U.S. at 611 (hedging). In view of the Office’s recent guidance, claim 1 recites subject matter that falls within the group covering certain methods of organizing human activity. *See Guidance*, 84 Fed. Reg. at 52 (explaining that certain methods of organizing human activity includes “commercial or legal interactions,” and “fundamental economic principles or practices”). For these reasons, claim 1 recites an abstract idea.

Appellants argue that claim 1 is directed to a narrower concept than virtual-currency accounting and exchanging. App. Br. 6. According to Appellants, currencies do not conventionally have two values. *Id.* at 9. Appellants argue that this feature is not common. *Id.*; *see also id.* at 14–15. For example, Appellants argue that recording the internal and external values is not inherent to currency exchanging and tracking. *Id.* at 9. 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 11. 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 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.* at 5–6. 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 the recited internal and external values does not render the claim any less abstract.

Thus, claim 1 recites the abstract ideas of currency exchanging and accounting, which are fundamental economic practices.

#### *Integration into a Practical Application*

Claim 1 recites features in addition to the abstract ideas of currency exchanging and accounting. Namely, claim 1 recites (1) recording and retrieving information about the participants and the credits in a data store in a virtual environment and (2) targeting offers to customers. As we discuss below, these additional elements do not integrate the judicial exception into a practical application, and thus, claim 1 is directed to the abstract idea. *See* Guidance, 84 Fed. Reg. at 55 nn.25 & 27–32 (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. 10. According to Appellants, the claims use different internal and external values so the system can target offers to participants with virtual credits having internal values less than external values. *Id.* at 10–11 (citing Spec. ¶¶ 3–6, 66–68); *see also* Reply Br. 6–7. Appellants argue that the steps encourage economic participation. App. Br. 10–11.

Yet claim 1 does not recite how the computer meaningfully contributes to this objective. As Appellants point out, it is the concept of associating two values with the credits—not the data store or the computer—that allows the credits to be seeded. *Id.* at 10–11; *see also* Spec. ¶¶ 20, 57, 66–68. 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).

Also, the recited step of targeting offers to potential customers using the recorded data does not impart a meaningful limitation on the abstract ideas because it is claimed generically. *See OIP Techs., Inc. v. Amazon.com*,

*Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (explaining that presenting offers and gathering statistics amounted to mere data gathering in the claimed invention), *cited in* MPEP § 2106.05(g). For instance, claim 1 merely recites “targeting customers” without claiming the specific technical limitations for doing so.

Although a computer and data store are recited, claim 1 does not apply or use the abstract ideas 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 In re TLI Comms. LLC Patent Litig.*, 823 F.3d 607, 612–13 (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. 10. 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. Guidance, 84 Fed. Reg. at 55; *see also* MPEP § 2106.05 (f), (h).

Thus, claim 1 does not integrate the judicial exception into a practical application. *See* Guidance, 84 Fed. Reg. at 54–55 (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, they would be anticipated by or obvious over the prior art. App. Br. 13. Appellants argue claim 1’s subject matter is different from a reference about currency exchanging that was listed in the Information Disclosure Statement and considered by the Examiner. *Id.* at 14–15. According to Appellants, the additional limitations ensure that the claims are not merely reciting currency exchanging, 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 of Tex., LLC v. DirecTV, LLC*, 838 F.3d 1253, 1263 (Fed. Cir. 2016) (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” activity 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. Guidance, 84 Fed. Reg. at. 56.

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 include 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 Alice*, 573 U.S. at 224 (“Using a computer to create and maintain ‘shadow’ accounts amounts to electronic recordkeeping—one of the most basic functions of a computer.”); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (updating an activity log); *see also* MPEP § 2106.05(d)(II)(iii).

Claim 1’s additional elements also include targeting offers to participants. Similarly, the Federal Circuit has recognized that presenting offers and gathering statistics are well-understood, routine, conventional activities, when claimed in a merely generic manner or as extra-solution activity, which is the case here. *See OIP Techs., Inc.*, 788 F.3d at 1363. Specifically, claim 1 merely requires targeting an offer to participants without any additional purportedly inventive technical solution for doing so. In fact, claim 1 broadly recites “targeting an offer to the one or more participants to allow the one or more participants to spend the created credits

on the offer” and uses “comprising” as the transitional phrase. Because the transitional phrase “comprising” does not exclude additional unrecited steps, the claim includes targeting all participants—i.e., tracked and untracked participants.

Considering the elements in combination, Appellants have not shown that the recited storing and querying data improve operating efficiency, reduce storage cost, or otherwise operate in an unconventional way. Thus, the additional elements, individually and in combination, do not provide an inventive concept. *See* Guidance, 84 Fed. Reg. at 56.

Appellants’ inventive-concept argument focuses on economic improvements. *See* App. Br. 11; Reply Br. 7–8. According to Appellants, the claimed features improve an economy because the values allow for steps that encourage economic participation. App. Br. 11. 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. 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 claims 1–9, 11–17, 19, and 20, which are argued as a group. *See* n.3 *supra*.

Appeal 2018-000481  
Application 13/954,948

DECISION

We affirm the Examiner's decision to reject claims 1–9, 11–17, 19, 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