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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* BRIAN MARK SHUSTER and  
GARY STEPHEN SHUSTER

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Appeal 2017-008740  
Application 13/919,776<sup>1</sup>  
Technology Center 3600

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Before JOSEPH A. FISCHETTI, PHILIP J. HOFFMANN, and  
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's non-final rejection of claims 1–6, 8, 10, 12–16, and 18–25. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

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<sup>1</sup> According to the Appeal Brief, inventors Brian Mark Shuster and Gary Stephen Shuster are the real parties in interest. Br. 2.

## THE INVENTION

Appellants claim “systems and methods for incentivizing users of one application to try or use another application by, for example, enabling users to transfer virtual objects between applications” (Abstract).

Claim 1 reproduced below, is representative of the subject matter on appeal.

1. A method for transferring virtual objects, the method comprising:
  - determining that a user in a first application has obtained a non-currency based first virtual object of a first type, the first virtual object generated by the first application, the first application comprising a first persistent online environment;
  - identifying a second application comprising a second persistent online environment, the second persistent online environment of a different type than the first persistent online environment;
  - converting the first virtual object to a non-currency based second virtual object of a second type usable with the second application;
  - providing the second virtual object to the second application,wherein converting the first virtual object to the second virtual object comprises:
  - determining a first share of a quantity of the first virtual object associated with the user;
  - determining a number of users associated with shares of the quantity of the first virtual object who have converted respective shares of the quantity of the first virtual object to quantities of the second virtual object;
  - determining a conversion rate for converting the first share of the quantity of the first virtual object to a quantity of the second virtual object based, at least in part, on the number of users;
  - converting the first share of the quantity of the first virtual object to the quantity of the second virtual object based, at least in part, on the conversion rate, and

wherein providing the second virtual object to the second application comprises requesting that the second application provide the quantity of the second virtual object to the user in the second application.

#### THE REJECTION

The following rejection is before us for review:

Claims 1–6, 8, 10, 12–16, and 18–25 under 35 U.S.C. § 101.

#### FINDINGS OF FACT

We adopt the Examiner’s findings as set forth on pages 2–8 of the Non-Final Action and on pages 2–10 of the Answer.

#### ANALYSIS

##### 35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1–6, 8, 10, 12–16, and 18–25 under 35 U.S.C. § 101.

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat else is there in the claims before us?” To answer that question . . . consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. [The Court] described step two of this analysis as a search for an “inventive concept”—*i.e.*, an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

*Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014)  
(alteration in original) (internal citations omitted) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept. Although the Court in *Alice* made a finding as to what the claims were directed to, we determine that the plain language of the claims and the Specification provide enough information to inform one as to what they are directed.

The steps in representative claim 1 result in<sup>2</sup>:

converting the first share of the quantity of the first virtual object to the quantity of the second virtual object based, at least in part, on the conversion rate, and

wherein providing the second virtual object to the second application comprises requesting that the second application provide the quantity of the second virtual object to the user in the second application.

The Examiner found that “[c]laim(s) 1–6, 8, 10, 12–16 and 18–25 is/are directed to converting a virtual object to another virtual object which uses mathematical procedures for converting one form of numerical representation to another (i.e. abstract idea).” Non-Final Act. 5–6. The Examiner further found:

The claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the only additional limitations in the claim relate to computerization of converting the first object to the second object within a persistent online environment. The persistent online environment would require generic computer

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<sup>2</sup> Our analysis is made based on considering the claims as a whole, but for purposes of this discussion, we note the result phrase of the independent claim to point to what the claims are directed.

comprising a processor and memory in order to perform basic computer functions of accepting user input, manipulating that information (i.e. converting the virtual object) and displaying the results.

Non-Final Act. 7. The Specification states:

In some embodiments, an application may allow virtual objects to be traded among users of the same application. However, the application may prevent virtual objects from being traded or converted for use with another application. In such cases, a user of one application who wishes to trade virtual objects with a user of another application may use a third party system (e.g., a virtual object (VO) transfer system) to facilitate the trade as described below.

Spec. ¶ 20.

Based on the Examiner's findings and the Specification, we find that the claims are directed to an object of value that is transferable between applications through the intermediary of a conversion rate, which is a fundamental economic principle because the object value is tradable, like a commodity. The patent-ineligible end of the spectrum includes fundamental economic practices, *Alice*, 134 S. Ct. at 2357.

Also, we also agree with the Examiner that the steps in representative claim 1, such as, "converting the first virtual object," "determining a first share of a quantity of the first virtual object," "determining a number of users associated with shares of the quantity of the first virtual object who have converted respective shares," and "determining a conversion rate for converting the first share of the quantity of the first virtual object to a quantity of the second virtual object," constitute "analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category." *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354

(Fed. Cir. 2016); *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (claims directed to certain arrangements involving contractual relations are directed to abstract ideas). Thus, an object of value which is transferable between applications through the intermediary of a conversion rate is an “abstract idea” beyond the scope of § 101.

As in *Alice*, we need not labor to delimit the precise contours of the “abstract ideas” category in this case. It is enough to recognize that there is no meaningful distinction in the level of abstraction between the concept of an intermediated settlement, as discussed in *Alice*, and the concept of an object of value that is transferable between applications through the intermediary of a conversion rate, at issue here. Both are squarely within the realm of “abstract ideas” as the Court has used that term. That the claims do not preempt all forms of the abstraction or may be limited to application–based value objects, do not make them any less abstract. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (citations omitted) (“[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.”).

Claim 1, unlike the claims found non-abstract in prior cases, uses generic computer recitations to perform data reception, transmission, calculation and linkage, and does not recite an improvement to a particular computer technology. *See, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (finding claims not abstract because they “focused on a specific asserted improvement in computer animation”).

The introduction of a computer<sup>3</sup> into the claims would not alter the analysis at *Alice* step two.

[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implemen[t]” an abstract idea “on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the pre-emption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional featur[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

*Alice*, 134 S. Ct. at 2358 (alterations in original) (internal citations omitted).

Instead, “the relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Id.* at 2359. They do not.

Taking the claim elements individually, the function performed by a computer at each step of the process would be purely conventional. Using a computer to retrieve, select, and apply decision criteria to data and modify the data as a result amounts to electronic data query, computation and retrieval—one of the most basic functions of a computer. All of these

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<sup>3</sup> We note that nowhere in the claims is a computer recited; at best, claims 21–25 only require “a persistent online environment.” We make this analysis however for purposes of completeness based on the two-prong test in *Alice*.

computer functions are well-understood, routine, conventional activities previously known to the trading industry. *See Elec. Power Grp.*, 830 F.3d at 1354; *see also In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming.”). In short, each step does no more than require a generic computer to perform generic computer functions.

Considered as an ordered combination, the computer components of Appellants’ claims add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis-access/display is equally generic and conventional or otherwise held to be abstract. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction); *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that sequence of data retrieval, analysis, modification, generation, display, and transmission was abstract); *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (holding sequence of processing, routing, controlling, and monitoring was abstract). The Specification, e.g., at paragraphs ¶¶ 44, 45, discloses using generic computer components in a conventional manner for their known functions. The ordering of the steps is, therefore, ordinary and conventional.

The claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. The Specification spells out different generic

equipment and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of information access under different scenarios. *See, e.g.*, Spec. ¶ 45 (disclosing how “transfer system 420 can each include any type of computing device,” and “network 430 can include any type of network”). Thus, the claims at issue amount to nothing significantly more than instructions to apply the abstract idea of information access and computation using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2360.

We have reviewed all the arguments (Br. 4–14) Appellants have submitted concerning the patent eligibility of the claims before us that stand rejected under 35 U.S.C. § 101. We find that our analysis above substantially covers the substance of all the arguments that have been made. But, for purposes of completeness, we will address various specific contentions in order to make individual rebuttals.

Appellants argue:

Here, there is no evidence supporting the Section 101 rejection, and no evidence that the claims are directed to “the organization and comparison of data which can be performed mentally and is an idea of itself” (see Office Action, p. 6, ll. 13–14) or “simply converting one form of mathematical expression to another” (see *id.*, p. 7, ll. 8–9).

Br. 6.

We disagree with Appellants. The Examiner analyzed the claims using the *Mayo/Alice* two-step framework, consistent with the guidance set forth in the USPTO’s JULY 2015 UPDATE: SUBJECT MATTER ELIGIBILITY” to 2014 INTERIM GUIDANCE ON PATENT SUBJECT MATTER ELIGIBILITY (2014

IEG). Ans. 2–4; Non-Final Act. 5–8. The Examiner found that “[c]laim(s) 1–6, 8, 10, 12-16 and 18–25 is/are directed to converting a virtual object to another virtual object which uses mathematical procedures for converting one form of numerical representation to another (i.e. abstract idea).” Ans. 2; Non-Final Act. 5. The Examiner further found:

The claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the only additional limitations in the claim relate to computerization of converting the first object to the second object within a persistent online environment. The persistent online environment would require generic computer comprising a processor and memory in order to perform basic computer functions of accepting user input, manipulating that information (i.e. converting the virtual object) and displaying the results.

Ans. 4; Non-Final Act. 7.

Also, there is no requirement that examiners must provide evidentiary support in every case before a conclusion can be made that a claim is directed to an abstract idea. *See, e.g.*, Section IV, “JULY 2015 UPDATE: SUBJECT MATTER ELIGIBILITY” to 2014 INTERIM GUIDANCE ON PATENT SUBJECT MATTER ELIGIBILITY (2014 IEG), 79 Fed. Reg. 74618 (Dec. 16, 2014) (“The courts consider the determination of whether a claim is eligible (which involves identifying whether an exception such as an abstract idea is being claimed) to be *a question of law*. Accordingly, courts do not rely on evidence that a claimed concept is a judicial exception, and in most cases resolve the ultimate legal conclusion on eligibility without making any factual findings.” (emphasis added) (footnote omitted)). We agree that evidence may be helpful in certain situations where, for instance, facts are in

dispute,<sup>4</sup> but it is not always necessary. Based on the above analysis set forth by the Examiner (Ans. 2–4; Non-Final Act. 5–8), we are unpersuaded it is necessary in this case.

All that is required of the Office to meet its *prima facie* burden of production is that the Examiner set forth the statutory basis of the rejection and the reference or references relied upon in a sufficiently articulate and informative manner as to meet the notice requirement of 35 U.S.C. § 132. As the statute itself instructs, the Examiner must “notify the applicant,” “stating the reasons for such rejection,” “together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application.” 35 U.S.C. § 132; *see In re Jung*, 637 F.3d 1356, 1363 (Fed. Cir. 2011). Here, as we found above, the Examiner has made these findings as required by the statute. *See* Ans. 2–4; Non-Final Act. 5–8.

Appellants also argue:

Although the conversion rate itself may be a mathematical expression that is used to convert quantities of a first virtual object to quantities of a second virtual object, the fact that the objects change form (not just change in number) precludes the conversion of the virtual objects from falling under the umbrella of “converting one form of mathematical expression to another.”

Br. 7.

We disagree with Appellants. In *Diehr*, for example, the Court

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<sup>4</sup> *See, e.g.*, MPEP § 2106.07(a)(III) (2018) (“The courts consider the determination of whether a claim is eligible (which involves identifying whether an exception such as an abstract idea is being claimed) to be a question of law. Thus, the court does not require ‘evidence’ that a claimed concept is a judicial exception, and generally decides the legal conclusion of eligibility without resolving any factual issues.” (citations omitted)).

established eligibility under § 101 for claims containing mathematical formulas when the claim “implements or applies that formula in a structure or process which, when considered as a whole,” causes or performs, “e.g., transforming or reducing an article to a different state or thing.” *Diamond v. Diehr*, 450 U.S. 175, 192–93 (1981). In contrast, we fail to see how the change in the value of an object constitutes transforming or reducing an article into a different state or thing—a value still remains a value, albeit different in number but the same in relative worth.

Appellants further argue:

The claimed solutions represent a significant improvement over traditional virtual environment technology by enabling objects to be accessed in multiple environments even when the environments are configured for different types of objects, data or software. Therefore, the claimed solutions amount to an inventive concept for resolving the particular problem of transferring disparate objects from one virtual environment to another, rendering the claims patent-eligible.

Br. 8.

We disagree with Appellants. The question is whether the claims as a whole “focus on a specific means or method that improves the relevant technology” or are “directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). In this case, representative claim 1, as a whole, is focused on satisfying certain contingencies for a “converting the first share of the quantity of the first virtual object to the quantity of the second virtual object based, at least in part, on the conversion rate,” which we find *supra* is both a calculation and a fundamental economic principle—abstractions. Moreover, we disagree with Appellants because “the addition of merely novel or non-routine components

to the claimed idea [does not] necessarily turn[] an abstraction into something concrete.” *Ultramercial*, 772 F.3d at 715.

Appellants repeat claim 1 and contend that the claim elements “contain elements that represent significantly more than the abstract idea itself.” Br. 9.

We disagree with Appellants. First, in their argument on page 9–10 of the Brief, Appellants constrain their argument to independent claim 1. But, Appellants interchange the claimed word “application” with “persistent online environment.” The latter is only used in independent claims 21 and 22. The word “application” is only used in claim 1 which is argued, and is broader than “persistent online environment.” The term “application”<sup>5</sup> is a generic word covering processes that can be implemented by human intervention or by machine. In light of the breadth of the claim, Appellants’ argument is not persuasive as to error in the rejection.

Second, as we found *supra*, the claims and Specification describe a general purpose computer programmed to perform conventional functions in carrying out an abstraction that does not amount to an inventive concept such that the claims are significantly more than the abstract idea. *See, e.g.*, Spec. ¶ 45 (disclosing how “transfer system 420 can each include any type of computing device,” and “network 430 can include any type of network”). Thus, the claims at issue amount to nothing significantly more than instructions to apply the abstract idea of information access and computation using some unspecified, generic computer.

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<sup>5</sup> The ordinary and customary definition of “application” is: “an act of putting something to use” (<https://www.merriam-webster.com/dictionary/application> (last visited Oct. 18, 2018)).

Concerning claims 21 and 22, Appellants further argue that “the qualitative alteration is an unconventional step that adds an additional meaningful limitation to Claim 21, which amounts to significantly more than any abstract idea.” Br. 12.

We disagree with Appellants. The question in the second step of the patent-eligibility analysis is not whether the process steps are unconventional, but whether the computer implementation of the process steps involves “more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.’” *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (quoting *Alice*, 134 S. Ct. at 2359). Such an analysis is a factual determination. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018) (“Whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.”). We find the Examiner’s noting of generic nature of the component parts recited in the claims provides sufficient evidence of a generic computer system used to implement the abstraction (“[t]he persistent online environment would require generic computer comprising a processor and memory in order to perform basic computer functions...”; “[t]he interface is also recited at a high level of generality with the only required function of displaying, which is a well-known routine function of interfaces”). Non-Final Act. 5, 7.

Appellants’ remaining arguments on pages 13–14 of the Appeal Brief either merely repeat claim limitations without substantive argument or reference arguments made for other similar claims, and thus are unpersuasive for the same reasons given above. A statement which merely

Appeal 2017-008740  
Application 13/919,776

points out what a claim recites will not be considered an argument for separate patentability of the claim. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2017).

#### CONCLUSIONS OF LAW

We conclude the Examiner did not err in rejecting claims 1–6, 8, 10, 12–16, and 18–25 under 35 U.S.C. § 101.

#### DECISION

The decision of the Examiner to reject claims 1–6, 8, 10, 12–16, and 18–25 is affirmed.

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