UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GARRY LYONS, ORAN CUMMINS, and DONGHAO HUANG

Appeal 2018-001780
Application 14/679,293
Technology Center 3600

Before JOHN A. JEFFERY, BARBARA A. PARVIS, and BETH Z. SHAW, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants[1] appeal under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part.

STATEMENT OF THE CASE

Appellants' invention provides virtual currency micropayments in a financial transaction system by using a universal virtual currency to minimize processing fees and times while facilitating micropayments. Spec. ¶ 1. Upon receiving a consumer's request to exchange currency, the

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[1] Appellants identify the real party in interest as Mastercard International Incorporated. App. Br. 2.

invention (1) identifies the relevant exchange rules stored in a database,
(2) calculates an amount of virtual currency and associated real currency
based on these rules, and (3) notifies the consumer of this conversion. *See*
Abstract; Spec. ¶¶ 1, 71–80; Fig. 10. Claim 1 is illustrative:

> 1. A system for facilitating currency exchanging using a universal
> virtual currency, comprising:
> a database configured to store a plurality of currency exchange rules,
> wherein each currency exchange rule is associated with at least a virtual
> currency and one or more real currencies;
> a receiving device configured to receive a transaction request for a
> currency exchange from a consumer, wherein the transaction request
> includes at least an amount of a first real currency and indicates a second
> real currency; a processor configured to
> identify a first currency exchange rule stored in the database where
> the associated one or more real currencies includes at least the first real
> currency,
> identify a second currency exchange rule stored in the database where
> the associated one or more real currencies includes at least the second real
> currency, calculate a virtual currency amount based on the identified first
> currency exchange rule and the amount of the first real currency included in
> the received transaction request, and
> calculate an amount of the second real currency based on the
> identified second currency exchange rule and the calculated virtual currency
> amount; and
> a transmitting device configured to transmit at least the calculated
> amount of the second real currency.

THE REJECTION

The Examiner rejected claims 1–20 under 35 U.S.C. § 101 as directed
to ineligible subject matter. Ans. 3–6.[2]

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[2] Throughout this opinion, we refer to (1) the Appeal Brief filed June 16,
2017 ("App. Br."); (2) the Examiner's Answer mailed October 11, 2017
("Ans."); and (3) the Reply Brief filed December 8, 2017 ("Reply Br.").

CONTENTIONS

The Examiner determines that the claims are directed to an abstract idea, namely organizing human activities, with respect to the recited functions for (1) storing currency exchange rules; (2) receiving a transaction request from a consumer; (3) identifying the recited currency exchange rules; (4) calculating amounts of virtual and real currency, and (5) transmitting the calculated amount of real currency. Ans. 3–10.

The Examiner adds that the claims do not include elements that add significantly more than the abstract idea, but merely recite conventional generic computer functions. *Id.* 5–6, 10–13. Based on these determinations, the Examiner concludes that the claims are ineligible under § 101. *Id.* 3–10.

Appellants argue that the claimed invention is not directed to an abstract idea. App. Br. 6–15; Reply Br. 2–8. According to Appellants, the Examiner not only fails to articulate clearly the alleged abstract idea, but the Examiner also fails to explain why the claims are directed to an abstract idea and mischaracterizes Appellants' claims. App. Br. 7–13. Appellants further contend that the recited limitations also add significantly more to the purported abstract idea to render the claims eligible. *See* App. Br. 13–15; Reply Br. 8. Appellants add that the Examiner also did not identify any elements of the dependent claims, let alone explain why those elements are ineligible and, therefore, the Examiner failed to establish a prima facie case of ineligibility for those claims. App. Br. 15.

ISSUE

Under § 101, has the Examiner erred in rejecting claims 1–20, as directed to ineligible subject matter? This issue turns on whether the claims

are directed to an abstract idea and, if so, whether recited elements—considered individually and as an ordered combination—transform the nature of the claims into a patent-eligible application of that abstract idea.

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. *See, e.g., Alice Corp. Pty. Ltd. 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

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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 water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 184 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."). That said, 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 and citation omitted). "A claim that recites an abstract idea must include 'additional

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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.*

In January 2019, the USPTO published revised guidance on the application of § 101. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (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 activity such as a fundamental economic practice, or mental processes); and
>
> (2) additional elements that integrate the judicial exception into a practical application (*see* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) §§ 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)).

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

> (3) adds a specific limitation beyond the judicial exception that is not well-understood, routine, and conventional in the field (*see* MPEP § 2106.05(d)); or
>
> (4) simply appends well-understood, routine, and 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

Claims 1 and 11: Alice/Mayo Step One

Independent claim 1 recites *a system for facilitating currency exchanging using a universal virtual currency* comprising four principal elements: (1) *a database*; (2) *a receiving device*; (3) *an exchange rule identifier*; (4) *a currency amount calculator*; and (5) *a transmitting device*, where elements (3) and (4) are recited to be "of a processor."

The database is configured to *store currency exchange rules that are each associated with at least a virtual currency and one or more real currencies*. The receiving device is configured to *receive a transaction request for a currency exchange from a consumer, where the request includes a first real currency amount and indicates a second real currency*. The exchange rule identifier is configured to *identify first and second currency exchange rules that are associated with real currencies including the first and second real currencies, respectively*.

The recited currency amount calculator is configured to *calculate* (1) *a virtual currency amount, and* (2) *a second real currency amount, where the virtual currency amount is based on* (a) *the identified first exchange rule, and* (b) *the first real currency amount in the received request*. Moreover, the *second real currency amount is based on (1) the identified currency exchange rule, and (2) the calculated virtual currency amount*. Lastly, the recited transmitting device is configured to *transmit at least the calculated amount of the second real currency*.[3]

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[3] Unless otherwise indicated, we italicize or quote text associated with various recited limitations for emphasis and clarity.

As the Specification explains, the invention provides virtual currency micropayments in a financial transaction system by using a universal virtual currency to minimize processing fees and times while facilitating micropayments. Spec. ¶ 1. According to the Specification, exchanging real currency using a universal virtual currency may provide consumers with better control over exchange rate fluctuations as well as a more stable centralized currency to or from which other currencies can be freely exchanged. *Id.* ¶ 71.

To achieve these ends, upon receiving a consumer's request to exchange currency, the invention (1) identifies the relevant exchange rules stored in a database, (2) calculates an amount of virtual currency and associated real currency based on these rules, and (3) notifies the consumer of this conversion. *See* Spec. ¶¶ 71–80; Fig. 10.

Turning to claim 1, we first note that the claim recites a system and, therefore, falls within the machine category of § 101. But despite falling within this statutory category, we must still determine whether the claim is directed to a judicial exception, namely an abstract idea. *See Alice*, 573 U.S. at 217. To this end, we must determine whether (1) the claim *recites* a judicial exception, and (2) fails to integrate the exception into a practical application. *See* Guidance, 84 Fed. Reg. at 52–55. If both elements are satisfied, the claim is directed to a judicial exception under the first step of the *Alice/Mayo* test. *See id.*

In the rejection, the Examiner determines that claim 1 is directed to an abstract idea, namely organizing human activities, with respect to the recited functions for (1) storing currency exchange rules; (2) receiving a transaction request from a consumer; (3) identifying the recited currency exchange

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rules; (4) calculating amounts of virtual and real currency, and

(5) transmitting the calculated amount of real currency. Ans. 4, 7. To

determine whether a claim recites an abstract idea, we (1) identify the

claim's specific limitations that recite an abstract idea, and (2) determine

whether the identified limitations fall within certain subject matter

groupings, namely (a) mathematical concepts[4]; (b) certain methods of

organizing human activity[5]; or (c) mental processes.[6]

Here, apart from the recited (1) *database*; (2) *receiving device*;

(3) *processor's exchange rule identifier and currency amount calculator*;

and (4) *transmitting device*, every limitation of claim 1 recites fundamental

economic practices and commercial interactions by exchanging currency

according to predefined rules upon request. Because these monetary

conversions in connection with financial transactions are fundamental

economic practices and commercial interactions, they fit squarely within the

human activity organization category of the agency's guidelines. *See*

Guidance, 84 Fed. Reg. at 52 (listing exemplary methods of organizing

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[4] Mathematical concepts include mathematical relationships, mathematical formulas or equations, and mathematical calculations. *See* Guidance, 84 Fed. Reg. at 52.
[5] Certain methods of organizing human activity include fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions). *See* Guidance, 84 Fed. Reg. at 52.
[6] Mental processes are concepts performed in the human mind including an observation, evaluation, judgment, or opinion. *See* Guidance, 84 Fed. Reg. at 52.

human activity, including fundamental economic practices and commercial interactions).

In addition to falling in the methods organizing human activity category as noted above, certain recited limitations also fall in the mental processes category of the agency's guidelines as well. *See* Guidance, 84 Fed. Reg. at 52 (listing exemplary mental processes including observations, evaluations, and judgments). That is, apart from their storage in a database, *identifying the recited currency exchange rules* can be performed entirely mentally by merely *remembering* those rules or *thinking* about them. We reach a similar conclusion regarding the recited *calculation of virtual and real currency amounts*—calculations that can be performed entirely mentally or with pen and paper. *Cf. Benson*, 409 U.S. at 67 (noting that converting binary coded decimal numerals to pure binary numerals could be done mentally). Therefore, in addition to organizing human activity, the recited identification and calculation functions, apart from their performance by a processor, also fall within the mental processes category of the agency's guidelines. *See* Guidance, 84 Fed. Reg. at 52 (listing exemplary mental processes including observations, evaluations, and judgments); *see also CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011).

Furthermore, the recited calculation functions also fall within the mathematical concepts category of the agency's guidelines at least to the extent that the recited rules on which the calculations are based specify particular mathematical ratios or relationships between one currency amount and another consistent with a given exchange rate. *See* Spec. ¶ 75 (noting an

exemplary exchange rate of 1 U.S. dollar as worth 100 units of universal virtual currency (UVC)); *see also* Guidance, 84 Fed. Reg. at 52.

Although the claim recites an abstract idea based on these methods of organizing human activity, mental processes, and mathematical concepts, we nevertheless must still determine whether the abstract idea is integrated into a practical application, namely whether the claim applies, relies on, or uses the abstract idea in a manner that imposes a meaningful limit on the abstract idea, such that the claim is more than a drafting effort designed to monopolize the abstract idea. *See* Guidance, 84 Fed. Reg. at 54–55. To this end, we (1) identify whether there are any additional recited elements beyond the abstract idea, and (2) evaluate those elements individually and collectively to determine whether they integrate the exception into a practical application. *See id.*

Here, the recited (1) *database*; (2) *receiving device*; (3) the processor's *exchange rule identifier* and *currency amount calculator*; and (4) *transmitting device* are the only recited elements beyond the abstract idea, but those additional elements do not integrate the abstract idea into a practical application when reading claim 1 as a whole. First, we are not persuaded that the claimed invention improves the computer or its components' functionality or efficiency, or otherwise changes the way those devices function, at least in the sense contemplated by the Federal Circuit in *Enfish LLC v. Microsoft Corporation*, 822 F.3d 1327 (Fed. Cir. 2016), despite Appellants' arguments to the contrary (Reply Br. 5, 8). The claimed self-referential table in *Enfish* was a specific type of data structure designed to improve the way a computer stores and retrieves data in memory. *Enfish*, 822 F.3d at 1339. To the extent Appellants contend that the claimed

invention uses such a data structure to improve a computer's functionality or efficiency, or otherwise change the way that device functions (*see* Reply Br. 8), there is no persuasive evidence on this record to substantiate such a contention.

Appellants' reliance on *DDR Holdings, LLC v. Hotels.Com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) (App. Br. 12) is likewise unavailing. There, instead of a computer network operating in its normal, expected manner by sending a website visitor to a third-party website apparently connected with a clicked advertisement, the claimed invention in *DDR* generated and directed the visitor to a hybrid page that presented (1) product information from the third party, and (2) visual "look and feel" elements from the host website. *DDR*, 773 F.3d at 1258–59. Given this particular Internet-based solution, the court held that the claimed invention did not merely use the Internet to perform a business practice known from the pre-Internet world, but rather was necessarily rooted in computer technology to overcome a problem specifically arising in computer networks. *Id.* at 1257.

That is not the case here. As noted previously, Appellants' claimed invention, in essence, organizes human activity by exchanging currency according to predefined rules upon request. Despite Appellants' arguments to the contrary (App. Br. 7–13; Reply Br. 2–7), the claimed invention here is not necessarily rooted in computer technology in the sense contemplated by *DDR* where the claimed invention solved a challenge particular to the Internet. Although Appellants' invention uses various computer-based components, including (1) a *database*; (2) *receiving device*; (3) the processor's *exchange rule identifier* and *currency amount calculator*; and (4) *transmitting device*, the claimed invention does not solve a challenge

particular to the computer or the network used to implement this functionality.

Appellants' reliance on *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) (App. Br. 8–9, 12–13; Reply Br. 5–6) is unavailing. There, the claimed process used a combined order of specific rules that rendered information in a specific format that was applied to create a sequence of synchronized, animated characters. *McRO*, 837 F.3d at 1315. Notably, the recited process *automatically animated characters* using particular information and techniques—an improvement over manual three-dimensional animation techniques that was not directed to an abstract idea. *Id.* at 1316.

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

Appellants' reliance on *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (App. Br. 12; Reply Br. 7) is unavailing. There, the court held eligible claims directed to a technology-based solution to filter Internet content that overcame existing problems with other Internet filtering systems by making a known filtering solution—namely a "one-size-fits-all" filter at an Internet Service Provider (ISP)—more dynamic and efficient via individualized filtering at the ISP.

BASCOM, 827 F.3d at 1351. Notably, this customizable filtering solution improved the computer system's performance and, therefore, was patent-eligible. *See id.*

But unlike the filtering system improvements in *BASCOM* that added significantly more to the abstract idea in that case, the claimed invention here uses generic computing components to implement an abstract idea as noted previously.

Appellants' reliance on the decision in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016) (Reply Br. 7) is unavailing. There, the court held that a claim directed to using accounting information with which a network accounting record is correlated to *enhance* the record was held eligible because the claim involved an *unconventional* technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases). Although the court recognized that this solution used generic components, the recited enhancing function necessarily required these generic components to operate in an *unconventional* manner to achieve an improvement in computer functionality. *Id.* at 1300–01. Notably, the recited enhancement in *Amdocs* depended on not only the network's distributed architecture, but also on the network devices and "gatherers" working together in a distributed environment. *Id.* at 1301. In reaching its eligibility conclusion, the court noted the patent's emphasis on the drawbacks of previous systems where all network information flowed to one location making it very difficult to keep up with massive record flows from network devices and requiring huge databases. *Id.* at 1300. The court also noted similar network-based drawbacks that were overcome by similar

unconventional distributed solutions in other patents at issue. *See id.* at 1305–06.

That is not the case here. Although the claimed invention uses conventional computing components that receive, process, and transmit data, there is no persuasive evidence on this record to show that these generic components operate in an *unconventional* manner to achieve an improvement in computer functionality as in *Amdocs*.

Although the claimed invention requires computer components, it is the incorporation of those components—not a claimed rule—that purportedly improves the existing process. *Cf. FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016). In short, the claimed invention does not focus on improving computers as tools, but rather certain independently abstract ideas that use computers as tools. *see also Mortgage Grader Inc. v. First Choice Loan Services, Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (noting that components such an "interface," "network," and "database" are generic computer components that do not satisfy the inventive concept requirement); *see also* Guidance, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(f)).

Therefore, we do not find that the claim recites additional elements improving (1) the computer itself, or (2) another technology or technical field. *See* Guidance, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(a)). Rather, the above-noted additional elements merely (1) apply the abstract idea on a computer; (2) include instructions to implement the abstract idea on a computer; or (3) use the computer as a tool to perform the abstract idea. *See* Guidance, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(f)). Therefore, the recited additional elements, namely the recited (1) *database*;

(2) *receiving device*; (3) the processor's *exchange rule identifier* and *currency amount calculator*; and (4) *transmitting device*, do not integrate the abstract idea into a practical application when reading claim 1 as a whole.

We further note that the recited transmitting device not only uses generic computing components to perform the abstract idea as noted above, but its function of transmitting the calculated amount of the second real currency is also insignificant post-solution activity that merely outputs the results of the calculation to some unspecified destination. *See Parker v. Flook*, 437 U.S. 584, 590 (1978) (insignificant post-solution activity held insufficient to impart patentability); *see also CyberSource*, 654 F.3d at 1371 (discussing *Flook*). *Accord* Guidance, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(g)).

Lastly, we find unavailing Appellants' contention that the claimed invention does not preempt using the alleged abstract idea in all fields. *See* App. Br. 11–13; Reply Br. 6–7. Where, as here, the claims cover a patent-ineligible concept, preemption concerns "are fully addressed and made moot" by an analysis under the *Alice* framework. *See Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

In conclusion, although the claimed invention may be beneficial by using a universal virtual currency to minimize processing fees and times when facilitating micropayments, a claim for a useful or beneficial abstract idea is still an abstract idea. *See Ariosa*, 788 F.3d at 1379–80.

We, therefore, agree with the Examiner that claim 1 is directed to an abstract idea.

Claims 1 and 11: Alice/Mayo Step Two

Turning to *Alice/Mayo* step two, claim 1's additional recited elements, namely the recited (1) *database*; (2) *receiving device*; (3) the processor's *exchange rule identifier* and *currency amount calculator*; and (4) *transmitting device*—considered individually and as an ordered combination—do not provide an inventive concept such that these additional elements amount to significantly more than the abstract idea. *See Alice*, 573 U.S. at 221; *see also* Guidance, 84 Fed. Reg. at 56. As noted above, the claimed invention merely uses generic computing components to implement the recited abstract idea.

To the extent that Appellants contend that the recited limitations, including the additional elements' particular recited functionality, add significantly more to the abstract idea to provide an inventive concept under *Alice/Mayo* step two (*see* App. Br. 13–15; Reply Br. 8), these limitations are not *additional* elements *beyond* the abstract idea, but rather are directed to the abstract idea as noted previously. *See* Guidance, 84 Fed. Reg. at 56 (instructing that *additional* recited elements should be evaluated in *Alice/Mayo* step two to determine whether they (1) *add* specific limitations that are not well-understood, routine, and conventional in the field, or (2) simply *append* well-understood, routine, and conventional activities previously known to the industry (citing MPEP § 2106.05(d))).

Rather, the (1) *database*; (2) *receiving device*; (3) the processor's *exchange rule identifier* and *currency amount calculator*; and (4) *transmitting device* are the additional recited elements whose generic computing functionality is well-understood, routine, and conventional. *Accord* Ans. 5, 10–11 (finding that the claims' additional recited *computer-*

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based elements provide routine *computer* functionality to implement the
abstract idea). Appellants' arguments in this regard (*see* App. Br. 13–15;
Reply Br. 8) are, therefore, unpersuasive.

In conclusion, we do not find that the additional recited elements—
considered individually and as an ordered combination—add significantly
more to the abstract idea to provide an inventive concept under *Alice/Mayo*
step two. *See Alice*, 573 U.S. at 221; *see also* Guidance, 84 Fed. Reg. at 56.
Therefore, we are not persuaded that the Examiner erred in rejecting claim 1,
and claim 11 not argued separately with particularity.

Dependent Claims

We are, however, persuaded of error in the Examiner's ineligibility
rejection of dependent claims 2–10 and 12–20. In the rejection, the
Examiner's *sole* basis for rejecting the dependent claims on page 6 of the
Answer is quoted below:

> The dependent claim(s) when analyzed and each taken as a
> whole are held to be patent ineligible under 35 U.S.C. 101
> because the additional recited limitation(s) fail(s) to establish
> that the claim(s) is/are not directed to an abstract idea.

Not only is this statement general and conclusory, it fails to identify
any limitations in the dependent claims, let alone explain why the claims are
directed to an abstract idea in light of their additional limitations to establish
a prima facie case of eligibility under § 101 as Appellants indicate. *See*
App. Br. 15 (noting this deficiency).

Notably, in responding to Appellants' arguments in this regard, the Examiner simply repeats the above conclusory statement with no further explanation or analysis. *See* Ans. 13.

The prima facie case is a procedural tool of patent examination, allocating the respective burdens between the Examiner and an applicant. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). First, the Examiner bears the initial burden of presenting a prima facie case of unpatentability. *Id.* (citing *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984)). If the Examiner meets that burden, the burden then shifts to the applicant to rebut the prima facie case with evidence or argument. *Oetiker*, 977 F.2d at 1445. Then, patentability is determined on the totality of the record by a preponderance of evidence with due consideration of persuasiveness of argument. *Id.*

As noted in MPEP § 2106.07, the initial burden of establishing a prima facie case of ineligibility is *on the Examiner* to explain clearly and specifically why claims are ineligible, so that the applicant has sufficient notice and can respond effectively. That did not happen here with respect to the dependent claims.

To the extent that the Examiner finds that the additional limitations do not add significantly more to the abstract idea to provide an inventive concept under *Alice/Mayo* step two, we cannot say on this record, nor will we speculate in that regard here in the first instance on appeal. What we can say, however, is that the Examiner's gloss on the dependent claims' additional limitations falls short of establishing a prima facie case of ineligibility on this record.

Accordingly, because the Examiner failed to establish a prima facie case of ineligibility for dependent claims 2–10 and 12–20, we are constrained by this record to reverse the Examiner's rejection of those claims.

CONCLUSION

Under § 101, the Examiner did not err in rejecting claims 1 and 11, but erred in rejecting claims 2–10 and 12–20.

DECISION

We affirm-in-part the Examiner's decision to reject claims 1–20.

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-IN-PART