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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* LAWRENCE M. AUSUBEL, PETER C. CRAMTON, and  
PAUL R. MILGROM

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Appeal 2017-005577  
Application 14/292,838<sup>1</sup>  
Technology Center 3600

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Before MURRIEL E. CRAWFORD, BRUCE T. WIEDER, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

WIEDER, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1–16. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was held February 14, 2019.

We AFFIRM.

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<sup>1</sup> According to Appellants, the real party in interest is Efficient Auctions LLC. (Appeal Br. 3.)

### CLAIMED SUBJECT MATTER

Appellants' "invention relates to improving market mechanisms for the sale or transfer of complementary goods and, more particularly, to the implementation of market mechanisms yielding the efficient clearing of spectrum encumbrances." (Spec. ¶ 1.) In short, "[t]he present invention is a system and method to sell or procure complementary goods." (*Id.* ¶ 7.)

Claims 1 and 9 are the independent claims on appeal. Claim 1 is illustrative. It recites:<sup>2</sup>

1. A method implemented in a system comprising an auctioneer computer and a communications interface, said system arranged to receive information from a plurality of bidder computers, said method for conducting a first auction of a first set of items and a second auction of a second set of items, said second set of items formed by an aggregation and/or partition of said first set of items, at least two bidders participating in each auction, the method comprising:
  - a) initiating the first auction by identifying the first set of items,
  - b) receiving bids at the auctioneer computer for items in the first set of items from the communications interface,
  - c) determining, using the auctioneer computer, whether the first auction should terminate,
  - d) repeating b) and c) until the first auction is terminated,
  - e) initiating the second auction by identifying the second set of items, wherein said second set of items is composed of portions of selected items from said first set which are aggregated with portions of other items from said first set,
  - f) receiving bids at the auctioneer computer for items in the second set of items from the communications interface, and

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<sup>2</sup> Claim 1, as listed in the originally-filed Appeal Brief (Orig. Appeal Br. 16), differs in format from claim 1 as amended in the response filed June 27, 2015, and entered by the Examiner on September 11, 2015. Claim 1, as entered by the Examiner, appears here.

g) constraining received bids for items in one of said auctions by accepting only bids which satisfy a constraint based on bids received in another of said auctions.

### REJECTION

Claims 1–16 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

### ANALYSIS

In their briefs, Appellants do not separately argue independent claim 1 and 9, or dependent claims 2–8 and 10–16. We select claim 1 as representative. Claims 2–16 will stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. Section 101, however, “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

*Alice* applies a two-step framework, earlier set out in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 573 U.S. at 217.

Under the two-step framework, it must first be determined if “the claims at issue are directed to a patent-ineligible concept.” *Id.* If the claims are determined to be directed to a patent-ineligible concept, then the second step of the framework is applied to determine if “the elements of the claim . . . contain[] an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Id.* at 221 (citing *Mayo*, 566 U.S. at 72–73, 79).

With regard to step one of the *Alice* framework, we apply a “directed to” two prong test to: 1) evaluate whether the claim recites a judicial exception, and 2) if the claim recites a judicial exception, evaluate whether the claim “appl[ies], rel[ies] on, or use[s] the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 54 (Jan. 7, 2019) (hereinafter “2019 Guidance”).

Here, the Examiner determines that claim 1 is directed to a fundamental business practice, i.e., “performing a first auction of a first set of items and a second auction of a second set of items.” (Final Action 3.) In other words, claim 1 is directed to a method of organizing human activity. *See 2019 Guidance* at 52.

Appellants disagree and argue that “[t]he invention solves the technical problem occasioned when the value of items subject to an auction (the first set of items) depends on the availability of complementary items which are not available in the auction.” (Appeal Br. 4.)

Under step one of the *Alice* framework, we “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a

whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)).

The “directed to” inquiry . . . cannot simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions *involves* a law of nature and/or natural phenomenon . . . . Rather, the “directed to” inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether “their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

*Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). In other words, the first step of the *Alice* framework “asks whether the focus of the claims is on the specific asserted improvement in [the relevant technology] or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Id.* at 1335–36; *see also* 2019 Guidance at 54–55.

The Specification provides evidence as to what the claimed invention is directed. In this case, the Specification discloses that the invention relates to “a system and method to sell or procure complementary goods.” (Spec. ¶ 7.) Claim 1 provides further evidence. Claim 1 recites a “method for conducting a first auction of a first set of items and a second auction of a second set of items . . . comprising:” “initiating the first auction,” “receiving bids,” “determining . . . whether the first auction should terminate,” “repeating . . . until the first auction is terminated,” “initiating [a] second auction,” “receiving bids,” “and constraining received bids.” In short, claim 1 is directed to performing auctions. Regardless of whether we describe it in terms of a fundamental business practice or a commercial

interaction, claim 1 is directed to the abstract idea of organizing human activity. *See* 2019 Guidance at 52. This is accomplished by initiating the auction/process, receiving information, and analyzing the information.

Although we and the Examiner describe, at different levels of abstraction, to what the claims are directed, it is recognized that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). That need not and, in this case does not, “impact the patentability analysis.” *Id.* at 1241.

We note that claims directed to performing auctions, have been determined to be directed to an abstract idea. *See, e.g., In re Schrader*, 22 F.3d 290 (Fed. Cir. 1994); *see also Priceplay.com, Inc. v. AOL Advert., Inc.*, 83 F. Supp. 3d 577 (D. Del. 2015), *aff’d* 627 F. App’x 925 (Fed. Cir. 2016). Additionally, “we have treated collecting[, i.e., receiving] information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.” *Elec. Power Grp.*, 830 F.3d at 1353. “In a similar vein, we have treated 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.” *Id.* at 1354. The limitations recited in claim 1 could be performed by a person using a pencil and paper, or with ordinary mental steps. *See id.* at 1355. “Here, the claims are clearly focused on the combination of those abstract-idea processes.” *Id.* at 1354.

We do not find persuasive Appellants’ argument that “[t]he invention solves the technical problem occasioned when the value of items subject to an auction (the first set of items) depends on the availability of

complementary items which are not available in the auction.” (Appeal Br. 4.) As an initial matter, claim 1 does not recite “complementary items.” The Specification discloses that “[g]ood A and good B are said to be *complements* when they are most usefully consumed or produced together.” (Spec. ¶ 3.) But claim 1 simply recites that “said second set of items is composed of portions of selected items from said first set which are aggregated with portions of other items from said first set.” Therefore, we find that Appellants’ argument is not commensurate with the scope of claim 1. Moreover, the steps of performing a second auction on a subset of the items from the first auction do not solve a technical problem. Rather, the asserted improvement is to a commercial/business practice regarding auctioning items.

Appellants do not persuasively argue how the invention improves a technical field or the functioning of a computer. Appellants use the computer to receive and analyze data. And “relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.” *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015). Moreover, “[i]t has been clear since *Alice* that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018).

Additionally, the limitations of claim 1 do not recite implementation details. Instead, they recite functional results to be achieved. In other words, claim 1 does not recite “a particular way of programming or designing the software . . . , but instead merely claim[s] the resulting

[method].” *Apple, Inc.*, 842 F.3d at 1241. “Indeed, the claim language here provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it. Our law demands more.” *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017).

Nor do we find persuasive Appellants’ argument that “assum[ing] that the rejection is based on the alleged proposition that if some auctions are considered a ‘fundamental business practice’ then all auctions are considered patent ineligible.” (Appeal Br. 11.) As discussed above, if a claim is directed to a patent-ineligible concept (a determination under step one of the Alice framework), without “apply[ing], rely[ing] on, or us[ing] the judicial exception in a manner that imposes a meaningful limit on the judicial exception,” then the second step of the framework is applied to reach a determination as to patent eligibility. (*See* Guidance at 52–55.)

Appellants also seek to analogize the claims to those in *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016). (Appeal Br. 13–14.) Specifically, Appellants argue that

the rejected claims do not merely call for implementing an auction on a computer. Rather the claims are directed at a particular problem of allocating complementary goods where one set (a second set) of goods is formed by an aggregation and partitioning of the items of the first set of goods and which also includes constraining bids in one auction based on bids in another auction. This is a specific solution to a specific problem and does not pre-empt all ways of conducting auctions.

(Appeal Br. 14.)

We do not find this argument persuasive. In *BASCOM*, the court determined that “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *BASCOM*,

827 F.3d at 1350. Specifically, “[t]he inventive concept described and claimed in the ’606 patent is the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user.” *Id.* at 1350. The Federal Circuit determined that this “particular arrangement of elements is a technical improvement over prior art ways of filtering.” *Id.* Here, the Appellants do not contend, and claim 1 does not specify, that the recited auctioneer computer must be arranged in a non-conventional manner. Nor do Appellants explain how the claimed method allegedly improves the function of the auctioneer computer. Rather, Appellants’ argument is, at best, an argument that the claimed invention provides an improved commercial interaction, i.e., that the claim is to the abstract idea of an improved auction. Additionally, as discussed above, claim 1 does not even recite “complementary goods.” Thus, we also find that Appellants’ argument is not commensurate with the scope of the claim.

Moreover, Appellants do not argue that they invented the “auctioneer computer.” (*See, e.g.*, Spec. ¶ 31.) Nor do we see how the recitation of the auctioneer computer, even in conjunction with the recited functions, “ensure[s] ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].” *Alice*, 573 U.S. at 221 (brackets in original) (quoting *Mayo*, 566 U.S. at 77.)

Citing *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016), Appellants argue that, like the claim limitations in *McRO*, the limitations in claim 1 “will likewise prevent broad preemption of all auction processes or even auction processes that include two auctions.”

(Appeal Br. 14.) We do not find this argument persuasive. Preemption is not a separate test.

To be clear, the proper focus is not preemption *per se*, for some measure of preemption is intrinsic in the statutory right granted with every patent to exclude competitors, for a limited time, from practicing the claimed invention. *See* 35 U.S.C. § 154. Rather, the animating concern is that claims should not be coextensive with a natural law, natural phenomenon, or abstract idea; a patent-eligible claim must include one or more substantive limitations that, in the words of the Supreme Court, add “significantly more” to the basic principle, with the result that the claim covers significantly *less*. *See Mayo* 132 S. Ct. at 1294 [566 U.S. at 72–73].

*CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1281 (Fed. Cir. 2013) (Lourie, J., concurring), *aff’d*, 573 U.S. 208 (2014). Moreover, “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). In other words, “preemption may signal patent ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

Appellants also seek to analogize claim 1 to the claims in *Trading Technologies International, Inc. v. CQG, Inc.*, 675 F. App’x 1001 (Fed. Cir. 2017). (Reply Br. 5–6.) Appellants argue that “[j]ust as in *Trading*, the claims involved in this appeal have no pre-electronic trading analog” and that “[t]he inventive method and system in *Trading* appear also to be implemented using generic computer hardware.” (Reply Br. 5.) We are not persuaded of error.

Claim 1 in *Trading Technologies* recites, in part,

displaying the bid and ask display regions in relation to fixed price levels positioned along the common static price axis such that when the inside market changes, the price levels along the common static price axis do not move and at least one of the first and second indicators moves in the bid or ask display regions relative to the common static price axis.

*Trading Techs.*, 675 F. App'x at 1003. The Federal Circuit agreed with the district court's determination that "[t]he claims require a specific, structured graphical user interface paired with a prescribed functionality directly related to the graphical user interface's structure that is addressed to and resolves a specifically identified problem in the prior state of the art." *Id.* at 1004. The Federal Circuit agreed with the district court that "the challenged patents solve problems of prior graphical user interface devices . . . in the context of computerized trading[] relating to speed, accuracy and usability." *Id.* (internal quotations omitted). "The [district] court found that these patents are directed to improvements in existing graphical user interface devices." *Id.*; see also *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1362–63 (Fed. Cir. 2018) (The court determined that "[t]he asserted claims in this case are directed to an improved user interface for computing devices," that the claim "limitations disclose a specific manner of displaying a limited set of information to the user, rather than using conventional user interface methods," and that "[t]he disclosed invention improves the efficiency of using the electronic device." The court determined that the claims were not directed to an abstract idea.)

Here, Appellants do not explain what claim elements solve a problem of prior graphical user interface devices or improve a graphical user interface device. Nor do Appellants point to anything in the Specification

disclosing how the claimed invention solves a problem relating to, or improves upon, a graphical user interface device.

Appellants also do not persuasively argue, particularly in view of *Schrader* and *Priceplay.com*, why the claimed auctions “have no pre-electronic trading analog.” To the extent Appellants are arguing that claim 1 recites a novel method for conducting auctions, we do not find this argument persuasive. “The ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.” *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981).

In view of the above, we agree with the Examiner that claim 1 is directed to an abstract idea.

Step two of the *Alice* framework has been described “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*, 573 U.S. at 217–18 (brackets in original) (quoting *Mayo*, 566 U.S. at 72–73).

Taking the claim elements separately, the function performed by the generic computer at each step is purely conventional. Receiving and analyzing information are basic computer functions, *i.e.*, they are well-understood, routine, and conventional functions previously known to the industry. *See Elec. Power Grp.*, 830 F.3d at 1356 (The claims “do not include any requirement for performing the claimed functions of gathering, analyzing, and displaying in real time by use of anything but entirely conventional, generic technology. The claims therefore do not state an arguably inventive concept . . . .”); *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.”).

Considered as an ordered combination, the generic computer of Appellants’ method adds nothing that is not already present when the steps are considered separately. For example, claim 1 does not, as discussed above, purport to improve the functioning of the computer itself. Nor does it effect an improvement in any other technology or technical field. Instead, claim 1 amounts to nothing significantly more than an instruction to apply the abstract idea using a generic computer. That is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 225–26.

In view of the above, we are not persuaded that the Examiner erred in rejecting claim 1. Claims 2–16 fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

#### DECISION

The Examiner’s rejection of claims 1–16 under 35 U.S.C. § 101 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