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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HOWARD W. LUTNICK, JOSEPH C. NOVIELLO, and
MICHAEL SWEETING

Appeal 2018-007045
Application 13/372,441
Technology Center 3600

Before JAMES R. HUGHES, JENNIFER L. MCKEOWN, and
JOYCE CRAIG, *Administrative Patent Judges*.

CRAIG, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 42–57 and 59–61. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies BGC Partners, Inc. as the real party in interest. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claims are directed to trading an item in an electronic trading system. Spec. § 82. Claim 42, reproduced below with added emphasis, is illustrative of the claimed subject matter:

42. A method for *facilitating electronic trading* over an electronic trading system with interfaces of computing devices, the method comprising:

determining, by a computing device of an electronic trading system, from among a plurality of bids that are pending at a completion of a first trading state, a best bid, wherein the best bid comprises a bid having a best price from among the plurality of bids,

wherein the best bid is associated with a participant;

receiving, by a network interface of the computing device of the electronic trading system, from a network interface of a computing device of a participant, data representing an offer in a second trading state;

determining, by the computing device of the electronic trading system, that a price of the best bid satisfies a price criterion with respect to a price of a trade made in the first state;

based at least in part on determining that a price of the best bid satisfies a price criterion with respect to a price of a trade made in the first state, *presenting*, by the computing device of the electronic trading system to a display interface of a computing device of a participant the offer exclusively to the participant;

determining, by the computing device of the electronic trading system, that a different participant indicates a willingness to trade against the offer;

based at least in part on determining that the different participant indicates the willingness to trade against the offer, automatically *causing*, by the computing device of the electronic trading system, the participant to trade against the offer;

determining, by the computing device of the electronic trading system, whether an incoming order clear to trade; and

in response to determining that the incoming order is not cleared to trade, *generating* an electronic command to cause display of a visual indicator on a graphical user interface of a computing device of a user, the visual indicator to be displayed in a region of the graphical user interface that displays data representing bid and offer stacks and adjacent display of data representing volume of partially cleared order to indicate that only a portion of the order is cleared to be traded, the visual indicator to differentiate the partially cleared order from a totally uncleared order or from a totally clear order.

REJECTIONS

Claims 42–57 and 59–61 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to patent-ineligible subject matter. Final Act. 3–6.

ANALYSIS

Appellant argues the Examiner’s rejection of claim 42 under 35 U.S.C. § 101 as directed to patent-ineligible subject matter is in error. Appeal Br. 8.

To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv). Appellant argues claims 42–57 and 59–61 as a group. Appeal Br. 8, 17. Given our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the 35 U.S.C. § 101 rejection of claims 42–57 and 59–61 based on representative claim 42.

Legal Standard

“Whether a claim is drawn to patent-eligible subject matter is an issue of law that we review de novo.” *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1331 (Fed. Cir. 2010).

The Supreme Court’s two-step framework guides our analysis of patent eligibility under 35 U.S.C. § 101. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). In addition, the Office recently published revised guidance for evaluating subject matter eligibility under 35 U.S.C. § 101, specifically with respect to applying the *Alice* framework. USPTO, 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Office Guidance”). If a claim falls within one of the statutory categories of patent eligibility (i.e., a process, machine, manufacture, or composition of matter) then the first inquiry is whether the claim is directed to one of the judicially recognized exceptions (i.e., a law of nature, a natural phenomenon, or an abstract idea). *Alice*, 573 U.S. at 217. As part of this inquiry, we must “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 Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016).

Per Office Guidance, this first inquiry has two prongs of analysis (i) does the claim recite a judicial exception (e.g., an abstract idea), and (ii) if so, is the judicial exception integrated into a practical application. Office Guidance, 84 Fed. Reg. 54. Under the Office Guidance, if the judicial exception is integrated into a practical application, *see infra*, the claim is patent eligible under 35 U.S.C. § 101. Office Guidance, 84 Fed. Reg. 54–55. If the claim is directed to a judicial exception (i.e., recites a judicial exception and does not integrate the exception into a practical application), the next step is to determine whether any element, or combination of elements, amounts to significantly more than the judicial exception. *Alice*, 573 U.S. at 217; Office Guidance, 84 Fed. Reg. 56. 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 (citation omitted).

To summarize, under the current Office 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 for Patent Examining Procedure (“MPEP”) §§ 2106.05(a)–(c), (e)–(h)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim: (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or (4) “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.” *See generally* Office Guidance, 84 Fed Reg. 56.

Step 1

Claim 42, as a method claim, recites one of the enumerated categories of eligible subject matter in 35 U.S.C. § 101 (process). Therefore, the issue before us is whether it is directed to a judicial exception without significantly more.

Step 2A(i): Does the Claim Recite a Judicial Exception?

The Examiner determined that claim 42 is directed to “comparing new and stored information and using rules to identify options,” which the Examiner identified as an abstract idea. Final Act. 3.

Appellant argues that the Examiner erred because the rejection fails to identify the claimed concept as set forth or described in the claims. Appeal Br. 10. Appellant further argues that the Examiner oversimplified the claims and failed to account for the specific requirements recited in claim 42. *Id.*

We are not persuaded that the Examiner failed to make a prima facie case under 35 U.S.C. § 101. The procedural burden of establishing a prima facie case is carried when the rejection satisfies the requirements of 35 U.S.C. § 132. *In re Jung*, 637 F.3d 1356, 1363 (Fed. Cir. 2011). “Section 132 is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.” *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990). That is, the Examiner must set forth the rejection's statutory basis “in a sufficiently articulate and informative manner as to meet the notice requirement of [35 U.S.C.] § 132.” *Jung*, 637 F.3d at 1363.

This is not a case where the “rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.” *Id.* at 1362. Rather, the Examiner has provided a rationale that identifies the abstract idea recited in the claim and why it is considered an exception. *See* Final Act. 3–6.

Moreover, consistent with Appellant’s description of the claims, we find that the recited “determining” limitations describe facilitating electronic trading and are fairly characterized as functions that can be performed in the

human mind or with pen and paper, which falls into the mental processes category of abstract ideas. *See* Office Guidance, 84 Fed. Reg. 52, and 53 (listing “[m]ental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion)” as one of the “enumerated groupings of abstract ideas”) (footnote omitted).

Additionally, “facilitating electronic trading” is a fundamental economic concept, which is a certain method of organizing human activity, and an abstract idea. The focus of the steps recited in claim 42 is trading financial instruments in light of the exclusive right of certain participants to trade on incoming orders. *See* Spec. ¶¶ 79, 82, 88, and 89 (describing the invention as automation of a known method of trading—first on the follow trading—in electronic trading systems). Trading a financial instrument at a market price is a fundamental economic principle or practice, which is one of certain methods of organizing human activity that is an abstract idea. *See* Office Guidance, 84 Fed. Reg. 52, n.13 (citing *Alice*, 573 U.S. at 219–20 (concluding that use of a third party to mediate settlement risk is a “fundamental economic practice” and thus an abstract idea), and (describing the concept of risk hedging identified as an abstract idea in *Bilski* as “a method of organizing human activity.”); *see also Bilski*, 561 U.S. at 611–12 (concluding that hedging is a “fundamental economic practice” and therefore an abstract idea); *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378–79 (Fed. Cir. 2017) (holding that concept of “local processing of payments for remotely purchased goods” is a “fundamental economic practice, which *Alice* made clear is, without more, outside the patent system.”); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (concluding that claimed concept of “offer-based

price optimization” is an abstract idea “similar to other ‘fundamental economic concepts’ found to be abstract ideas by the Supreme Court and this court.”); *Trading Techs., Inc. v. IBG LLC*, 921 F.3d 1084 (Fed. Cir. 2019) (determining that graphing or displaying bid and offers to assist a trader to make an order to be an abstract idea); *Interactive Brokers LLC v. Chart Trading Dev., LLC*, 2016 WL 5371557 (PTAB 2016) (claims directed to a graphical user interface used in electronic trading were determined to be patent ineligible as directed to an abstract idea).

Because we agree with the Examiner that claim 42 recites an abstract idea, we proceed to Prong Two of Step 2A to determine if the idea is integrated into a practical application, in which case the claim as a whole would not be “directed to” merely an abstract idea.

Step 2A(ii): Judicial Exception Integrated into a Practical Application?

Because we determined that claim 42 recites a patent-ineligible concept, we next determine whether the recited judicial exception is integrated into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.

We use the term “additional elements” for claim features, limitations, or steps that the claim recites beyond the identified judicial exception. *See* Revised Guidance 84 Fed. Reg. 55 n.24. In claim 42, the additional elements include the “receiving,” “presenting,” “causing,” and “generating” steps, as well as the limitations “electronic trading system,” “computing devices,” a network interface,” “display interface,” and “graphical user interface.”

The Examiner determined that none of the additional computer limitations is sufficient to amount to significantly more than the judicial exception because those elements are “generically recited and therefore do not transform the claims into patent-eligible subject matter as the devices and interfaces are merely tools used to implement the abstract idea.” Final Act. 4. The Examiner also determined that “[r]eceiving an offer in a second trading state” amounts to mere data gathering, which is insufficient to transform the abstract idea into patent-eligible subject matter. *Id.*

We agree with the Examiner’s determinations. We further determine that the additional limitations directed to displaying an offer and causing a participant to trade against the offer constitute insignificant post-solution activity. *See* MPEP 2106.05(g). In particular, we determine that the “presenting” steps amounts to insignificant extra-solution activity. *See* Office Guidance, 84 Fed. Reg. 55 (citing MPEP § 2106.05(g)); *see also Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354–55 (Fed. Cir. 2016) (“merely presenting the results of abstract processes of collecting and analyzing information, without more . . . is abstract as an ancillary part of such collection and analysis.”). Further, “generating” a command to cause display of a visual indicator also adds insignificant extra-solution activity to the judicial exception. *See* Office Guidance, 84 Fed. Reg. 55, 55 n.31. The recited “causing” step may be also be viewed as insignificant extra-solution activity because no further details are recited regarding how the computing device automatically causes a participant to trade against the offer.

Citing *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356, 1363 (Fed. Cir. 2018), Appellant contends that, here, the claimed subject matter is directed to improvements in an electronic trading platform

facilitating electronic trading over a network with a graphical user interface screen that may help reduce the number of transactions over the network.

Appeal Br. 14. Appellant argues that the claimed subject matter is drawn to an improved user interface that provides advantages over the prior art systems including improving the efficiency of the electronic devices, thereby overcoming disadvantages of prior systems. *Id.*

We are not persuaded by Appellant’s arguments. In *Core Wireless*, the claimed invention specified particular technological functionality in the form of “an application summary that can be reached directly from [a] menu” such that the summary window “is displayed while the one or more applications are in an *un-launched state*.” *Core Wireless*, 880 F.3d at 1362–63. The court stated that “[t]he disclosed invention improves the efficiency of using the electronic device[s].” *Core Wireless*, 880 F.3d at 1363. However, the court also explained that “[w]e also ask whether the claims are directed to a specific improvement in the capabilities of computing devices” (*id.* at 1361), and then determine that “the claims are directed to an improvement in the functioning of computers” (*id.* at 1363). Thus, in *Core Wireless*, the improved efficiency of using the electronic devices was related to an identified improvement in the functioning of computers.

Appellant argues improved computer performance through facilitation of electronic trading over a network with a graphical user interface having the claimed features, which “helps reduce the number of transactions over the network and which may help reduce computer workload including computer resources such as memory resources processor resources, and network resources such as network bandwidth.” Appeal Br. 14 (emphasis omitted). However, Appellant has not shown that the claimed invention is

commensurate in scope with the type of specific interface and implementation for navigating as presented in *Core Wireless*. Instead, Appellant's claimed invention relies upon a visual indicator that is displayed in a region of a graphical user interface

that displays data representing bid and offer stacks and adjacent display of data representing volume of partially cleared order to indicate that only a portion of the order is cleared to be traded, the visual indicator to differentiate the partially cleared order from a totally uncleared order or from a totally clear order.

Appeal Br. 19–20, Claims App. (claim 42).

Rather than presenting a specific interface and implementation for navigating, as in *Core Wireless*, Appellant's claimed invention lacks a specific technical improvement in functionality. The fact that the steps can be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter. *See Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012).

Considering claim 42 as a whole, then, Appellant's invention lacks a technical solution to a technical problem like the claims in *Core Wireless*. Claim 42 merely uses instructions to implement the abstract idea on a computer or, alternatively, merely uses a computer as a tool to perform the abstract idea. Here, the additional limitation(s) do not integrate the judicial exception into a practical application. More particularly, the claims do not recite (i) an improvement to the functionality of a computer or other technology or technical field (*see* MPEP § 2106.05(a)); (ii) a “particular machine” to apply or use the judicial exception (*see* MPEP § 2106.05(b)); (iii) a particular transformation of an article to a different thing or state (*see* MPEP § 2106.05(c)); or (iv) any other meaningful limitation (*see* MPEP

§ 2106.05(e)). *See* Office Guidance, 84 Fed. Reg. 55. Rather, claim 42 recites an abstract ideas as identified in Step 2A(i), *supra*, and none of the limitations integrates the judicial exception into a practical application.

Therefore, because the abstract idea is not integrated into a practical application, we conclude that the claim is directed to the judicial exception.

Step 2B — “Inventive Concept” or “Significantly More”

If the claims are directed to a patent-ineligible concept, as we conclude above, we proceed to the “inventive concept” step. For Step 2B we must “look with more specificity at what the claim elements add, in order to determine ‘whether they identify an “inventive concept” in the application of the ineligible subject matter’ to which the claim is directed.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016) (quoting *Elec. Power Grp.*, 830 F.3d at 1353). We look to see whether there are any “additional features” in the claims that constitute an “inventive concept,” thereby rendering the claims eligible for patenting even if they are directed to an abstract idea. *Alice*, 573 U.S. at 221. Those “additional features” must be more than “well-understood, routine, conventional activity.” *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66, 79 (2012).

The Examiner determined that the additional elements in claim 1 amount to well-understood, routine, and conventional features in the trading industry, and are insufficient to transform the claims into patentable subject matter. Final Act. 4–5.

Appellant does not direct our attention to anything in the Specification that indicates the additional elements perform anything other than well-understood, routine, and conventional functions, such as receiving data,

looking up data in a database, attempting to execute commands, and storing data in a database. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”); *see also In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 614 (Fed. Cir. 2016) (server that receives data, extracts classification information from the received data, and stores the digital images insufficient to add an inventive concept); and *Alice*, 573 U.S. at 225–26 (receiving, storing, sending information over networks insufficient to add an inventive concept).

Instead, Appellant argues claim 42 is patent-eligible because its practice does not preempt practice by others. Appeal Br. 15. While preemption may signal patent ineligible subject matter, the absence of complete preemption “does not demonstrate patent eligibility,” “[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); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (“that 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.”).

We are also not persuaded by Appellant’s argument that “[t]he lack of prior art citations in the Final Action indicate that the claimed subject matter allows the computer to perform a novel and non-obvious function that was not previously performable by computers.” Appeal Br. 16. 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 35 U.S.C. § 101 categories of possibly patentable subject matter. *See* Appeal Br. 16; *see also* *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981). Our reviewing court further guides that “[e]ligibility and novelty are separate inquiries.” *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017); *see also* *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1263 (Fed. Cir. 2016) (holding that “[e]ven assuming” that a particular claimed feature was novel does not “avoid the problem of abstractness.”).

Because the Specification describes the additional computer elements (Spec. ¶¶ 53–63) in general terms, without describing the particulars, we conclude the claim limitations may be broadly but reasonably construed as reciting conventional computer components and techniques. We conclude claim 42 does not have an inventive concept because the claim, in essence, merely recites various computer-based elements along with no more than mere instructions to implement the identified abstract idea using the computer-based elements.

Because the claims fail under both the Step 2A and Step 2B analyses, we sustain the Examiner’s § 101 rejection of independent claim 42, as well as the Examiner’s § 101 rejection of claims 43–57 and 59–61, not argued separately with particularity. Appeal Br. 17.

CONCLUSION

We affirm the Examiner’s decision rejecting claims 42–57 and 59–61.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
42–57, 59–61	101	Eligibility	42–57, 59–61	

TIME PERIOD FOR RESPONSE

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