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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PHILIPP T. JOKISCH and MICHAEL SWEETING

Appeal 2019-004087
Application 14/143,063
Technology Center 3600

Before HUBERT C. LORIN, CYNTHIA L. MURPHY, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

LORIN, *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 1–12, 14–26, and 28. 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(a). Appellant identifies the real party in interest as BGC Partners, Inc. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claimed subject matter “relates to systems and methods for calculating an enhanced volume-weighted average price, and more particularly to trading systems that allow traders to place orders on average price contracts based on trades, bids, and offers.” (Spec., para. 2).

Claim 1, reproduced below with emphasis added, is illustrative of the claimed subject matter:

1. A method of facilitating electronic trading between an Application Program Interface (API) of one or more programmed computers and a Graphical User Interface (GUI) of a workstation over a communication network, the method comprising:

using one or more programmed computers *to iteratively determine a price when new information becomes available,*

wherein the new information includes new unmatched bids, new unmatched offers, and new trades, and

wherein the new unmatched bids and the new unmatched offers are used in determining the price when the new unmatched bids and the new unmatched offers are within a predetermined price range; and

using one or more programmed computers *to communicate messages* between the API of the one or more programmed computers and the GUI of the workstation *to publish to the workstation a final one of the iteratively determined price.*

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Lutnick	US 6,963,856 B2	Nov. 8, 2005
Jokisch	US 8,620,796 B2	Dec. 31, 2013

REJECTIONS

Claims 1–12, 14–26, and 28 are rejected under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

Claims 1–12, 14–26, and 28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–9, 11–14, 15–23, and 25–28 of Jokisch and Lutnick.

OPINION

The rejection of claims 1–12, 14–26, and 28 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

The Appellant argued these claims as a group. *See* Appeal Br. 8–14. We select claim 1 as the representative claim for this group, and the remaining claims 2–12, 14–26, and 28 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

Preliminary comment

Previous Office guidance on patent subject matter eligibility has been superseded by the 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019), hereinafter “2019 Revised 101 Guidance.” *Id.* at 51 (“Eligibility-related guidance issued prior to the Ninth Edition, R-08.2017, of the MPEP (published Jan. 2018) should not be relied upon.”) Accordingly, we will not address arguments on the sufficiency of the Examiner’s position relative prior guidance but rather our analysis that follows will comport with the 2019 Revised 101 Guidance. We will address

in particular Appellant's arguments made in the Reply Brief which are raised in the context of the 2019 Revised 101 Guidance.

Introduction

35 U.S.C. § 101 provides that “[w]hoever 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.”

In that regard, claim 1 covers a “process” and is thus statutory subject matter for which a patent may be obtained.² This is not in dispute.

However, the § 101 provision “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

In that regard, notwithstanding claim 1 covers statutory subject matter, the Examiner has raised a question of patent eligibility on the ground that claim 1 is directed to an abstract idea.

Alice identifies a two-step framework for determining whether claimed subject matter is directed to an abstract idea. *Alice*, 573 U.S. at 217.

² This corresponds to Step 1 of the 2019 Revised 101 Guidance which requires determining whether “the claim is to a statutory category.” *Id.* at 53. *See also* sentence bridging pages 53 and 54 (“consider[–] whether the claimed subject matter falls within the four statutory categories of patentable subject matter identified by 35 U.S.C. 101.”).

Alice step one – the “directed to” inquiry

According to *Alice* step one, “[w]e must first determine whether the claims at issue are *directed to* a patent-ineligible concept.” *Alice*, 573 U.S. at 218 (emphasis added).

The Examiner determined that claim 1 is directed to “facilitating the determination of a volume-weighted average price in an automated manner.” Final Act. 22. The Examiner provides detailed reasoning:

The claim recites the steps of determining a volume-weighted average price in an illiquid market based on trades and unmatched bids and offers. The price is iteratively determined when new information becomes available or at a specific time interval.

In other words, the claim describes steps for facilitating the determination of a volume-weighted average price in an automated manner. The scheme and/or concept is similar to other concepts that have been identified by the courts as abstract, such as a fundamental economic practice (e.g., concepts relating to the economy and commerce; performance of financial transactions), as well as an idea of itself (e.g., mental process (e.g., thinking) that can be performed in the human mind, or by a human manually; process of organizing information that can be performed mentally; obtaining and comparing intangible data (*Cybersource*); organizing information through mathematical correlations (*Digitech*); data recognition and storage (*Content Extraction*)), and Mathematical relationships and/or formulas (e.g., computing a price (*Freddie Mac*); concepts relating to a mathematical relationship or formula performing mathematical calculations (*Flook*)).

The reason that the limitations are considered to be an abstract idea is because the recited steps involve the determination of a price through an iterative process using a mathematical algorithm/formula using trading and auction (bid, offer) data

and/or information that is received and/or transmitted. The determination of a price as it relates to a trading transaction is a concept/practice found in the realm of commerce and as such, is a fundamental economic practice. The use of data/information comprising trading prices and auction bid-offer prices involves the recognition and comparison of data and/or information necessary for the calculation to be made, and the subsequent retrieval (e.g., obtaining) and transmission thereof. Thus the process involved is similar and/or not meaningfully different from an idea of itself. Furthermore, the steps are not meaningfully different from the abstract concept of an idea of itself because the process may be performed by a human being manually and/or mentally despite the computer-related devices recited which merely facilitates automation of a conventional and routine process, or in other words, computer implementation of an abstract concept. As such, the concept described in claim 1 is not meaningfully different from the concepts found by the courts to be abstract ideas. Thus, the claim is directed to an abstract idea

Final Act. 22–23.

Appellant argues, *inter alia*, that the claims are not directed to an abstract idea but rather “is directed to improvements in computer systems including techniques to communicate messages between the API of the one or more programmed computers and the GUI of the workstation to publish to the workstation a final one of the iteratively determined price.” Appeal Br. 9 (emphasis omitted).

Accordingly, there is a dispute over whether claim 1 is directed to an abstract idea. Specifically, is claim 1 directed to “facilitating the determination of a volume-weighted average price in an automated manner” (Final Act. 22) or “to improvements in computer systems” (Appeal Br. 9)?

*Claim Construction*³

We consider the claim as a whole⁴ giving it the broadest reasonable construction⁵ as one of ordinary skill in the art would have interpreted it in light of the Specification⁶ at the time of filing.

Claim 1 sets forth steps to be taken by (a) “one or more programmed computers” to “facilitat[e] electronic trading between” two devices: (b) “an Application Program Interface (API) of one or more programmed

³ “[T]he important inquiry for a § 101 analysis is to look to the claim.” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013). “In *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1273 (Fed. Cir. 2012), the court observed that ‘claim construction is not an inviolable prerequisite to a validity determination under § 101.’ However, the threshold of § 101 must be crossed; an event often dependent on the scope and meaning of the claims.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347–48 (Fed. Cir. 2015).

⁴ “In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.” *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

⁵ 2019 Revised 101 Guidance, page 52, footnote 14 (“*If a claim, under its broadest reasonable interpretation . . .*”)

⁶ “First, it is always important to look at the actual language of the claims. . . . Second, in considering the roles played by individual limitations, it is important to read the claims ‘in light of the specification.’” *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1378 (Fed. Cir. 2017) (J. Linn, dissenting in part and concurring in part), *citing Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016), among others.

computers” and (c) “a Graphical User Interface (GUI) of a workstation over a communication network.” The steps generally call for (a) to

1. “iteratively determine a price when new information becomes available;” and,
2. “communicate messages . . . to publish . . . a final one of the iteratively determined price.”

More specifically, step 1. of claim 1 requires the “new information” to “include[] new unmatched bids, new unmatched offers, and new trades, . . . wherein the new unmatched bids and the new unmatched offers are used in determining the price when the new unmatched bids and the new unmatched offers are within a predetermined price range.” For step 2., claim 1 more specifically requires “communicat[ing] “between [(b)] and [(c)]” and “publish[ing]” “to the workstation” (i.e., of [(b)]).

Given all this claim 1 is reasonably broadly construed as facilitating electronic trading through communication of an iteratively determined price.

The Specification states that “[e]lectronically based trading systems have gained widespread popularity over the years.” Spec., para. 3. “Historically, traders use benchmarks to evaluate their trades. Determining the volume-weighted average price (hereinafter the ‘VWAP’) is one of the most common trade evaluation benchmarks.” *Id.* at para. 4. “However, the conventional VWAP may not be calculated for an illiquid market or a temporarily illiquid market which has little or no volume of trades.” *Id.* at para. 6. “[I]t would be desirable to provide traders with an opportunity to evaluate instruments traded in illiquid markets or temporarily illiquid markets using an approach for calculating an enhanced VWAP price.” *Id.* at para. 7. To meet this objective,

systems and methods [] provide traders with an eVWAP price that uses unmatched bid and offer prices to support or back up traded price volumes over a predetermined sampling period or trading period, thereby alleviating the above-mentioned difficulties. Such an approach may be used for illiquid markets or temporarily illiquid markets where there may be little or no actual trades. The approach for calculating the eVWAP price may include adjusting the eVWAP price using data (e.g., price and size information) from unmatched bids and offers. Unmatched bids and offers may be those bids and offers that have not been hit or lifted.

Id. at para. 9.

Given the method as claimed as reasonably broadly construed above and in light of the Specification's more particular description of the invention involving adjusting a calculated eVWAP price (which claim 1 is not limited to), based on the record before us, we reasonably broadly construe claim 1 in line with our construction; that is, as being directed to facilitating electronic trading through communication of an iteratively determined price.

*The Abstract Idea*⁷

Above, where we reproduce claim 1, we identify in italics the limitations we believe recite an abstract idea. Based on our claim construction analysis (above), we determine that the identified limitations describe facilitating electronic trading through communication of an iteratively determined price.

⁷ This corresponds to Step 2A of the 2019 Revised 101 Guidance. Step 2A determines “whether a claim is ‘directed to’ a judicial exception,” such as an abstract idea. Step 2A is two prong inquiry. *Id.* at 53.

Facilitating electronic trading through communication of an iteratively determined price is a commercial interaction. It falls within the enumerated “[c]ertain methods of organizing human activity” as grouping of abstract ideas set forth in the 2019 Revised 101 Guidance.⁸

*Improvement In the Functioning of a Computer*⁹ (Appellant’s Argument)

The Examiner’s characterization of what the claim is directed to set forth in the Answer is similar to ours, albeit at lower level of abstraction.

⁸ This corresponds to Prong One [“Evaluate Whether the Claim Recites a Judicial Exception”] of Step 2A of the 2019 Revised 101 Guidance. “To determine whether a claim recites an abstract idea in Prong One, examiners are now to: . . . (b) determine whether the identified limitation(s) falls within the subject matter groupings of abstract ideas enumerated in Section 1 of the [2019 Revised 101 Guidance].” *Id.* at 54. This case implicates subject matter grouping “(b)”:

(b) Certain methods of organizing human activity—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);

Id. at 52.

⁹ This corresponds to Prong Two [“If the Claim Recites a Judicial Exception, Evaluate Whether the Judicial Exception Is Integrated Into a Practical Application”] of Step 2A of the 2019 Revised 101 Guidance. “A claim that integrates a judicial exception into a practical application will apply, rely on, or use 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.” *Id.* at 54. One consideration,

“An abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). *Cf. id.* at 1241 (The Board’s “slight revision of its abstract idea analysis does not impact the patentability analysis.”)

We have reviewed the record and are unpersuaded as to error in our or the Examiner’s characterization of what claim 1 is directed to.

A central argument Appellant makes is that the claimed subject matter is not directed to an abstract idea but to improvements in computer functionality. The argument is expressed in various ways:

- “the claimed subject matter is directed to improvements in computer systems including techniques to **communicate messages between the API of the one or more programmed computers and the GUI of the workstation to publish to the workstation a final one of the iteratively determined price**” (Appeal Br. 9);
- “the claimed subject matter may improve computer performance by configuring a computer to **communicate messages between the API of the one or more programmed computers and the GUI of the workstation to publish to the workstation a final one of the iteratively determined price**. In this manner, the system may help manage use of computer resources including processor, memory and network resources such as bandwidth which thereby helps improve overall computer performance” (*id.* at 10);

implicated here, that is “indicative that an additional element (or combination of elements) may have integrated the exception into a practical application” (*id.* at 55) is if “[a]n additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field” (*id.* at 55).

- “the claimed subject matter is also drawn to an **improved interface** which **provides advantages over the prior art systems** which improves the efficiency of the electronic devices, thereby overcoming **disadvantages of prior systems**. In the present case, the above highlighted paragraphs of Appellants’ published disclosure emphasized **problems and disadvantages of prior systems** and some of the **advantages** provided by Appellants’ disclosed techniques [i.e., paras. 59 and 60 of Appellant’s U.S. Patent Publication 2014–0114835]” (*id.* at 11);
- “the claimed invention, in one example, recites an **improved interface** to communicate messages between the API of the one or more programmed computers and the GUI of the workstation to publish to the workstation a final one of the iteratively determined price. . . . [T]he presently claimed invention provides an interface which may **improve the efficiency of using the electronic devices**” (*id.*);
- “In one example, these techniques may help **control activity over the network and control computer workload** including computer resources such as memory resources, processor resources, and network resources such as network bandwidth. This allows the computer to perform a function not previously performable by a computer. The claimed subject matter allows the computer to perform a function not previously performable by a computer” (Reply Br. 3);
- “directed to improvements in **computer performance** particularly by **communicating messages between the API of the one or more programmed computers and the GUI of the workstation to publish to the workstation a final one of the iteratively determined price** over a network. Such techniques help control the number of commands and transactions being transmitted over the network and control computer workload including computer resources such as memory resources, processor resources, and network resources such as network bandwidth” (*id.* at 4);
- “claimed subject matter is also drawn to **an improved interface** which **provides advantages over the prior art systems** which improves the efficiency of the electronic

devices, thereby overcoming **disadvantages of prior systems**. . . . [T]he claimed invention provides an **improved interface** which helps increase the efficiency of using the electronic devices . . . [or] which may **improve the efficiency of using the electronic devices**” (*id.* at 5); and,

- “may help improve computer performance by **communicating messages between the API of the one or more programmed computers and the GUI of the workstation to publish to the workstation a final one of the iteratively determined price** over a network. In turn, this helps control traffic over the network, and which may help **manage computer workload including computer resources such as memory resources processor resources, and network resources such as network bandwidth**” (*id.* at 6).

However, we do not find that the record adequately supports the argument however it is expressed.

A major difficulty with the argument is that claim 1 does not reflect any of the improvements in computer functionality said to be associated with the claimed process. For example, there is no mention of computer workloads including computer resources such as memory resources processor resources, and network resources such as network bandwidth, that the process is said to help manage. Nor have we found the Specification to describe any of the alleged improvements to an interface, let alone that the claimed process as broadly as it is claimed necessarily leads the “computer to perform a function not previously performable by a computer” (Reply Br. 3). In our view, the argument is unpersuasive as to error in the Examiner’s determination under step one of the *Alice* analytical framework because it is not commensurate in scope with what is claimed. *Cf. In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (“Many of appellant’s arguments fail from the

outset because, . . . they are not based on limitations appearing in the claims.”)

Appellant cites paragraphs 46 and 47 in the instant Specification (i.e., paragraphs 59 and 60 of the U.S. Patent Publication No. 2014-0114835 specification) as evidence that the claimed subject matter is “drawn to an improved interface which provides advantages over the prior art systems which improves the efficiency of the electronic devices, thereby overcoming disadvantages of prior systems” (Appeal Br. 11) (emphasis omitted). The disclosures are reproduced below:

[0058] eVWAP trading application 210 may preferably include an application program interface (not shown), or, as described above, eVWAP trading application 210 may be resident in the memory of server 110. In this embodiment, the electronic trading application may contain eVWAP trading application 210 and an application program interface (not shown) as a discrete application from the electronic trading application which also may be included therein. The only distribution to the trader may then be a Graphical User Interface which allows the trader to interact with eVWAP trading application 210 resident at server 110.

[0058] Processor 202 uses the workstation program to present on display 204 the electronic trading application and trading information relating to market conditions received through communication link 104 and trading commands and values transmitted by a trader of workstation 102. Furthermore, input device 206 may be used to manually enter commands and values in order for these commands and values to be communicated to the electronic trading application.

Id. at 9–10 (emphasis omitted). Notwithstanding these passages describe subject matter (e.g., an eVWAP trading application) that claim 1 is not

limited to, we are unable to discern from these passages the technical problem the process as claimed is alleged to overcome. Nor do we see any indication that the claimed process “improves the efficiency of the electronic devices, thereby overcoming disadvantages of prior systems” (*id.* at 11) (emphasis omitted).

We have carefully reviewed the claim. Per our previous claim construction analysis, claim 1 is reasonably broadly construed as covering a scheme for facilitating electronic trading through communication of an iteratively determined price. We see no specific asserted improvement in computer capabilities recited in the claim. Nor does the Specification discuss anything in the context of a method as broadly as claim 1 currently presents it. Rather than being directed to any specific asserted improvement in computer capabilities, the claim and Specification support the opposite view – that the claimed subject matter is directed to facilitating electronic trading through communication of an iteratively determined price employing generic devices.

Claim 1 mentions (a) “one or more programmed computers”; (b) “an Application Program Interface (API) of one or more programmed computers”; and, (c) “a Graphical User Interface (GUI) of a workstation over a communication network” but the claim does not otherwise provide any structural details¹⁰ that would distinguish them from what was well-

¹⁰ *Cf. Move, Inc. v. Real Estate Alliance Ltd.*, 721 F. App’x 950, 954 (Fed. Cir. 2018) (non-precedential). “Claim 1 is aspirational in nature and devoid of any implementation details or technical description that would permit us to conclude that the claim as a whole is directed to something other than the abstract idea identified by the district court.”

known at the time the application was filed. *See, e.g.*, Spec., para. 39 (“It will be understood that the electronic trading application may be any suitable, software, hardware, or both configured to implement the features of the present invention.”). *See also* paras. 41–49.

With respect to the “using . . . to iteratively determine” and “using . . . to communicate messages . . . to publish” steps performed by (a) (i.e., “one or more programmed computers”), the Specification attributes no special meaning to any of these operations, individually or in the combination as claimed. In our view, consistent with the Specification, these are common computer processing functions that one of ordinary skill in the art at the time of the invention would have known generic computers were capable of performing and would have associated with generic computers. *Cf. OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015):

Beyond the abstract idea of offer-based price optimization, the claims merely recite “well-understood, routine conventional activit[ies],” either by requiring conventional computer activities or routine data-gathering steps. *Alice*, 134 S. Ct. at 2359 (*quoting Mayo*, 132 S.Ct. at 1294) (alterations in original). . . . For example, claim 1 recites “sending a first set of electronic messages over a network to devices,” the devices being “programmed to communicate,” storing test results in a “machine-readable medium,” and “using a computerized system . . . to automatically determine” an estimated outcome and setting a price. Just as in *Alice*, “all of these computer functions are ‘well-understood, routine, conventional activit[ies]’ previously known to the industry.” *Alice*, 134 S.Ct. at 2359 (*quoting Mayo*, 132 S.Ct. at 1294) (alterations in original); *see also 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.”).

At best, the (a) “one or more programmed computers”; (b) “an Application Program Interface (API) of one or more programmed computers”; and, (c) “a Graphical User Interface (GUI) of a workstation over a communication network” distinguish over other generic devices known at the time the application was filed in the *type* of electronic information being processed, such as “a price when new information becomes available.” But that not alone is not a patentably consequential distinction. This is so because “[c]laim limitations directed to the content of information and lacking a requisite functional relationship are not entitled to patentable weight because such information is not patent eligible subject matter under 35 U.S.C. § 101.” *Praxair Distribution, Inc. v. Mallinckrodt Hosp. Prods. IP Ltd.*, 890 F.3d 1024, 1032 (Fed. Cir. 2018).

Appellant cites *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018) and argues that the instant claims are patent-eligible for the reasons given in that decision, namely that, as in that case, “the claimed subject matter is also drawn to an **improved interface** which **provides advantages over the prior art systems** which improves the efficiency of the electronic devices, thereby overcoming **disadvantages of prior systems.**” Appeal Br. 11; *see also* Reply Br. 5. We are unpersuaded for the reasons already discussed. There is insufficient evidence in the present record showing the claimed process, as broadly as claimed, yields said technical improvement.

Accordingly, Appellant’s purported technical improvement argument is unpersuasive as to error in the Examiner’s or our characterization of what the claim is directed to because claim 1 does not reflect it and the record

evidence fails to adequately support it for the subject matter as broadly presented in claim 1.

Accordingly, within the meaning of the 2019 Revised 101 Guidance, we find there is no integration of the abstract idea into a practical application.

We note the discussion in the Reply Brief (pages 2–7) on this question of whether there is in claim 1 an integration of the abstract idea into a practical application. The discussion does not adequately explain in what way claim 1 integrates the abstract idea (i.e., facilitating electronic trading through communication of an iteratively determined price) into a practical application. The discussion repeats the points made in the Appeal Brief to argue, unpersuasively, that the claimed process is directed to an improvement in computer technology. Given that claim 1 does not reflect any such improvement and the record evidence fails to adequately support such an improvement for the subject matter as broadly presented in claim 1, we do not see how such the alleged improvement can nevertheless demonstrate an integration into a practical application.

The question is whether claim 1 goes beyond facilitating electronic trading through communication of an iteratively determined price in a “meaningful” way. According to the Guidance, “[a] claim that integrates a judicial exception into a practical application will apply, rely on, or use 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.” 2019 Revised 101 Guidance 53 (emphasis added). Setting out to facilitate electronic trading through

communication of an iteratively determined price in the technically–broad manner claimed (see the analysis in the claim construction section above) does not “apply, rely on, or use” said scheme so as to impose any *meaningful* limit on it. The record evidence weighs in favor of the view that the claim’s focus is on nontechnical improvements, such as improving order placement, not technical ones. *Cf. Trading Tech. Int’l, Inc. v. IBG LLC*, 921 F.3d 1378, 1384 (Fed. Cir. 2019) (“The claims are focused on providing information to traders in a way that helps them process information more quickly, ‘556 patent at 2:26–39, not on improving computers or technology.”)

We have considered Appellant’s other arguments challenging the Examiner’s determination under step one of the *Alice* framework and find them unpersuasive. For the foregoing reasons, the record supports the Examiner’s determination that claim 1 is directed to an abstract idea.

Alice step two – *Does the Claim Provide an Inventive Concept?*¹¹

Step two is “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 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)).

¹¹ This corresponds to Step 2B of the 2019 Revised 101 Guidance 56:

[I]f a claim has been determined to be directed to a judicial exception under revised Step 2A, examiners should then evaluate the additional elements individually and in combination under Step 2B to determine whether they provide an inventive concept (*i.e.*, whether the additional elements amount to significantly more than the exception itself).

In that regard, the Examiner determined, *inter alia*, that:

the recitation of the additional element(s) considered both individually and as an ordered combination are not sufficient to amount to significantly more than the judicial exception, because the programmed computers, communication network, and computer interfaces (API, GUI) are recited at a high level of generality and are recited as performing generic computer functions routinely used in computer applications. Generic computer components recited as performing generic computer functions that are well-understood, routine and conventional activities amount to no more than implementing the abstract idea with a computerized system. The use of generic computer components does not impose any meaningful limit on the computer implementation of the abstract idea. Merely using generic computer components to perform the identified basic functions does not constitute meaningful limitations that would amount to significantly more than the abstract idea.

Final Act. 24. We agree.

We addressed the matter of whether there were any purported specific asserted improvements in computer capabilities in our analysis above under step one of the *Alice* framework. This is consistent with the case law. *See Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018) (“We have several times held claims to pass muster under *Alice* step one when sufficiently focused on such improvements.”) Such an argument can also challenge a determination under step two of the *Alice* framework. *See buySAFE*, 765 F.3d at 1354–55. “[R]ecent Federal Circuit jurisprudence has indicated that eligible subject matter can often be identified either at the first or the second step of the *Alice/Mayo* [framework].” 2019 Revised 101 Guidance at 53; *see also id.* at n. 17.

Be that as it may, we are unpersuaded that claim 1 presents an element or combination of elements indicative of a specific asserted improvement in computer capabilities, thereby rendering the claimed subject matter sufficient to ensure that the patent in practice amounts to significantly more than a patent upon a scheme for facilitating electronic trading through communication of an iteratively determined price employing (a) “one or more programmed computers”; (b) “an Application Program Interface (API) of one or more programmed computers”; and, (c) “a Graphical User Interface (GUI) of a workstation over a communication network.”

We have reviewed the Specification and, as explained above, we can find no suggestion of any technical improvements as a result of performing the steps as broadly as they are recited.

We cited the Specification in our earlier discussion. It is intrinsic evidence that the claimed (a) “one or more programmed computers”; (b) “an Application Program Interface (API) of one or more programmed computers”; and, (c) “a Graphical User Interface (GUI) of a workstation over a communication network” as claimed are conventional. In doing so, we have followed “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP Inc.*), 881 F.3d 1360 (Fed. Cir. 2018),” USPTO Memorandum, Robert W. Bahr, Deputy Commissioner For Patent Examination Policy, April 19, 2018 (the “*Berkheimer* Memo”).

The court in *Berkheimer* held that “[t]he patent eligibility inquiry may contain underlying issues of fact.” *Berkheimer*, 881 F.3d at 1365 (*quoting* *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325

(Fed. Cir. 2016) (“The § 101 inquiry ‘*may* contain underlying factual issues.’”). But the court also held that “[w]hen there is *no genuine issue of material fact* regarding whether the claim element or claimed combination is well-understood, routine, [and] conventional to a skilled artisan in the relevant field, this issue can be decided on summary judgment as a matter of law.” *Id.* at 1368 (emphasis added). This qualification has been subsequently reiterated.

If there is a genuine dispute of material fact, Rule 56 requires that summary judgment be denied. In *Berkheimer*, there was such a genuine dispute for claims 4–7, but not for claims 1–3 and 9. . . . [I]n accordance with *Alice*, we have repeatedly recognized the absence of a genuine dispute as to eligibility for the many claims that have been defended as involving an inventive concept based merely on the idea of using existing computers or the Internet to carry out conventional processes, with no alteration of computer functionality.

Berkheimer v. HP Inc., 890 F.3d 1369, 1371–73 (Fed. Cir. 2018) (Order, On Petition for rehearing en banc, May 31, 2018); *see also Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1368 (Fed. Cir. 2018) (“A factual allegation or dispute should not automatically take the determination out of the court’s hands; rather, there needs to be justification for why additional evidence must be considered—the default being a legal determination.”).

Here, the Specification indisputably shows the (a) “one or more programmed computers”; (b) “an Application Program Interface (API) of one or more programmed computers”; and, (c) “a Graphical User Interface (GUI) of a workstation over a communication network” individually and in the context as claimed were conventional at the time of filing.

Accordingly, the record adequately establishes the well-understood, routine, or conventional nature of the (a) “one or more programmed computers”; (b) “an Application Program Interface (API) of one or more programmed computers”; and, (c) “a Graphical User Interface (GUI) of a workstation over a communication network” as broadly recited in claim 1.

Appellant contends that

that the claimed invention, in one example, recites **an additional element (or combination of elements)** that are **“not well-understood, routine or conventional”** to **communicate messages between the API of the one or more programmed computers and the GUI of the workstation to publish to the workstation a final one of the iteratively determined price.**

Appeal Br. 11. What that additional element is remains unexplained. Be that as it may, if, as the Specification suggests, the specific hardware and software is not critical to the invention, then one of ordinary skill reading the claim in light of that disclosure would understand the (a) “one or more programmed computers”; (b) “an Application Program Interface (API) of one or more programmed computers”; and, (c) “a Graphical User Interface (GUI) of a workstation over a communication network” of claim 1 as reasonably broadly covering generic devices. Employing generic devices adds nothing of significance to the abstract idea so as to transform it into an inventive concept.

No other persuasive arguments having been presented, we conclude that no error has been committed in the determination under *Alice* step two that claim 1 does not include an element or combination of elements circumscribing the patent-ineligible concept it is directed to so as to transform the concept into an inventive application.

We have considered all of the Appellant’s arguments (including those made in the Reply Brief) and find them unpersuasive.

Accordingly, because we are not persuaded as to error in the determinations that representative claim 1, and claims 2–12, 14–26, and 28 which stand or fall with claim 1, are directed to an abstract idea and do not present an “inventive concept,” we sustain the Examiner’s conclusion that they are directed to patent-ineligible subject matter for being judicially-excepted from 35 U.S.C. § 101. *Cf. LendingTree, LLC v. Zillow, Inc.*, 656 F. App’x 991, 997 (Fed. Cir. 2016) (“We have considered all of LendingTree’s remaining arguments and have found them unpersuasive. Accordingly, because the asserted claims of the patents in suit are directed to an abstract idea and do not present an ‘inventive concept,’ we hold that they are directed to ineligible subject matter under 35 U.S.C. § 101.”); *see, e.g., OIP Techs.*, 788 F.3d at 1364; *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016).

The rejection of claims 1–12, 14–26, and 28 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–9, 11–14, 15–23, and 25–28 of Jokisch and Lutnick.

Appellant does not address the substance of the rejection. Instead Appellant contends “that the Final Action rejection under double-patenting for these claims is too incomplete to raise any rejection.” Appeal Br. 15. Appellant then makes certain observations, such as “[t]he Final Action does not show how any specific claim of the present application corresponds to any specific reference claim” (*id.*) and “the Final Action does not compare all of the recitations of any of present claims to any specific claim of the

'796 patent or the '856 patent, nor does it set forth the obviousness analysis required by MPEP § 804(B)(1)" (*id.* at 16).

We are unpersuaded for the simple reason that a plain reading of the Final Action shows otherwise. Beginning on page 7 of the Final Action and continuing for the next 14 pages, the Examiner addresses every claim showing how each one corresponds to a claim in a cited reference. Here is an example:

Re Claim 14: (Previously Presented) The method of claim 1,

– wherein the using one or more programmed computers to publish the final price comprises posting the final price to a server.

('796 [Jokisch], [Claim 14]: wherein the using one or more programmed computers to publish the final price comprises posting the final price to a server.)

Final Act. 14. And the Examiner does indeed set forth an obviousness analysis. *See, e.g.*, Final Act. 8:

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention to include the teaching(s) of Lutnick for the motivation of better managing the trading of select classes of assets including securities, financial instruments, commodities, and their derivatives in accordance with specific protocols in an auction format which can be performed readily and easily by any person of ordinary skill in the art, with neither undue experimentation, nor risk of unexpected results.

Given the evidence does not support Appellant's contention that the rejection is incomplete and the substance of the rejection has not been addressed, the rejection is sustained.

CONCLUSION

The decision of the Examiner to reject claims 1–12, 14–26, and 28 is affirmed.

More specifically:

The rejection of claims 1–12, 14–26, and 28 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter is affirmed; and,

The rejection of claims 1–12, 14–26, and 28 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–9, 11–14, 15–23, and 25–28 of Jokisch and Lutnick is affirmed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–12, 14–26, 28	101	Eligibility	1–12, 14–26, 28	
1–12, 14–26, 28		Nonstatutory obviousness-type double patenting	1–12, 14–26, 28	

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