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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* PETER BARTKO, JOSEPH C. NOVIELLO,  
RAYMOND ANTHONY RICHARDS, and  
BRIAN ALEXANDER WESTON

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Appeal 2019-002220  
Application 11/623,728  
Technology Center 3600

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Before JUSTIN BUSCH, CATHERINE SHIANG, and JASON J. CHUNG,  
*Administrative Patent Judges.*

BUSCH, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) from a Final Rejection of claims 1–4, 9–13, and 17–24. Appellant previously canceled claims 5–8 and 14–16. We have jurisdiction over the remaining pending claims under 35 U.S.C. § 6(b).

We affirm.

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42 (2016). Appellant identifies BGC Partners, Inc. as the real party in interest. Appeal Br. 3.

### CLAIMED SUBJECT MATTER

Appellant’s disclosure generally relates to a “system for managing trading orders comprises a memory operable to store a first order in a first order book.” Spec., Abstract. More specifically, Appellant’s claimed invention relates to (1) generating, using a natural language understanding model that identifies a speaker’s intent, multiple semantic representations of audio data such that each semantic representation (a) results from associated transcription and (b) corresponds to (i) an intent and (ii) a value for a “slot” corresponding to an intent and (2) presenting the results in a user interface that allows a user to select between the various intents and values for the corresponding slots. Spec. ¶¶ 1, 10–12. Claims 1, 10, and 21 are independent claims, and claim 1 is reproduced below:

1. An apparatus for managing trading orders in an electronic trading system over a network with interfaces of computing devices, the apparatus, comprising:

at least one processor of a computing system of an electronic trading system, and

at least one memory device communicatively coupled to the at least one processor of the computing system of the electronic trading system, in which the at least one memory device stores instructions which, when executed by the at least one processor, direct the at least one processor of the computing system of the electronic trading system to:

store a first order in a first order book, wherein:

the first order comprises a first base price;

the first order received from interfaces of computing devices of a first group of traders;

the first order is associated with a first group of traders; and

the first group of traders is associated with a first ruleset;

store a second order in a second order book different from the first order book, wherein:

the second order comprises the first base price;

the second order received from interfaces of computing devices of a second group of traders;

the second order was received after the first order;

the second order is associated with a second group of traders different from the first group of traders; and

the second group of traders is associated with a second ruleset different from the first ruleset, wherein the second ruleset comprises a specification of a condition concerning a class of price types and a rule to execute an electronic trade at a price; and

receive, from interfaces of computing devices of a third group of traders, a counterorder associated with a third group of traders, wherein the counterorder matches the first order and the second order;

before any executing of any portion of the counterorder against any portion of the first order, and while at least a portion of the first order is available to be executed against, execute a first electronic trade associated with the second order and the counterorder, wherein the first electronic trade is executed according to the second ruleset, in which the act of executing the first electronic trade comprises executing a quantity of the second order against a quantity of the counterorder;

if a portion of the counterorder remains unfilled, execute a second electronic trade associated with the first order and the counterorder, wherein the second electronic trade is executed according to the first ruleset;

wherein executing the first trade according to the second ruleset comprises executing the first trade at a price comprising a fractional pip value; and

in response to determining that the first order satisfies at least one configurable threshold condition, apply a filter to the price of the first order to

(a) cause transmission of the price of the first order including a root value and the fractional pip value of the market data to a computing device of a trader, and allow display of the price of the first order including the root value and the fractional pip value of the market data on a trade history display portion of graphical user interface of the computing device of the trader,

(b) cause transmission of the root value of the market data, but not the fractional pip value of market data, to computing devices of a plurality of traders, and allow display of the root value of the market data, but not fractional pip value of the market data, on the market data display portions of graphical user interfaces of the computing devices of the plurality of the traders;

apply a sequencing order to the first order and the second order to remove suggestion of market priority of the first order and the second order; and

redisplay the sequenced first order and the second order to the graphical user interface of the computing devices of the plurality of the traders to prevent attempts to cancel the first order or the second order.

#### REJECTION

Claims 1–4, 9–13, and 17–24 stand rejected under 35 U.S.C. § 101 as being directed to ineligible subject matter. Final Act. 4–9.

#### ANALYSIS

The Examiner concludes claims 1–4, 9–13, and 17–24 are directed to judicially excepted subject matter. Final Act. 4–9. Appellant asserts the claims integrate the abstract idea into a practical application, the claims recite significantly more than the abstract idea, the Examiner’s analysis is inconsistent with USPTO guidelines, and the claims do not preempt all methods of achieving the intended result. Appeal Br. 12–18; Reply Br. 2–6.

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Appellant does not argue claims 2–4, 9–13, and 17–24 separately with particularity. *See* Appeal Br. 18. Accordingly, we select claim 1 as representative.

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 United States Patent and Trademark Office 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) (“Guidance”); USPTO, *October 2019 Patent Eligibility Guidance Update* (Oct. 17, 2019), [https://www.uspto.gov/sites/default/files/documents/peg\\_oct\\_2019\\_update.pdf](https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf) (“Guidance Update”).

If a claim falls within one of the statutory categories of patent eligibility (i.e., a process, machine, manufacture, or composition of matter), we determine 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 our inquiry, 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 Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016). The Guidance directs us to address this inquiry using the following 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. *Guidance*, 84 Fed. Reg. at 54.

Under the Guidance, if the judicial exception is integrated into a practical application, the claim is patent eligible under § 101. Guidance, 84 Fed. Reg. at 54–55. If the claim is *directed to* a judicial exception (i.e., the claim both recites a judicial exception and fails to integrate the exception into a practical application), we next determine whether the claim provides an inventive concept, which includes determining whether any element, or combination of elements, amounts to significantly more than the judicial exception. *Alice*, 573 U.S. at 217; Guidance, 84 Fed. Reg. at 56.

Here, we generally agree with the Examiner’s characterization of representative claim 1, *see* Final Act. 4, and we conclude claim 1 generally is directed to (1) managing trade orders by matching orders to counter-orders according to group-specific and order-of-execution rules and (2) displaying the trade orders in a particular sequence while omitting a portion of the price of one trade order when displaying the orders to other traders. This is consistent with how Appellant describes the claimed invention. *See* Spec. 3:21–23 (“the trading system may process trading orders from a particular group of traders according to a particular set of rules and may process trading orders from another group of traders according to a different set of rules”), 3:29–31 (“The trading system may disclose the trading order to other traders in the trading system. However, the trading system may prevent the disclosure of a portion of the price of the trading order.”), 15:12–19; Appeal Br. 13–14, 16 (arguing the claims manage “trading orders in an electronic trading system over a network with interfaces of computing devices” including “apply[ing] a sequencing order to the” two orders and redisplaying the sequenced orders in a graphical user interface (GUI)).

Managing a sequence of orders according to trader-specific rules and displaying those orders to traders is a commercial or legal interaction (agreements in the form of contracts) and, therefore, is a certain method of organizing human activity—an abstract idea. *See* Guidance, 84 Fed. Reg. at 52; *see also Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1090–91, 1093 (Fed. Cir. 2019) (concluding claims reciting receiving market data including bid prices and a plurality of price levels, displaying elements that may execute trade orders at certain prices, and setting a price and sending a trade order were “directed to the abstract idea of graphing bids and offers to assist a trader to make an order”); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1353 (Fed. Cir. 2014) (concluding “arrangements involving contractual relations, which are intangible entities” recite abstract ideas). Moreover, Appellant does not contest that the claims *recite* an abstract idea or the Examiner’s general characterization of the claims.

Representative claim 1 is reproduced below and includes the following limitations that recite managing a sequence of orders according to trader-specific rules and displaying those orders to traders, emphasized in *italics*:

1. An apparatus for managing trading orders in an electronic trading system over a network with interfaces of computing devices, the apparatus, comprising:
  - at least one processor of a computing system of an electronic trading system, and
  - at least one memory device communicatively coupled to the at least one processor of the computing system of the electronic trading system, in which the at least one memory device stores instructions which, when executed by the at least one processor, direct the at least one processor of the computing system of the electronic trading system to:
    - store a first order in a first order book, wherein:

the first order comprises a first base price;  
the first order received from interfaces of  
computing devices of a first group of traders;  
the first order is associated with a first group  
of traders; and  
the first group of traders is associated with a  
first ruleset;  
store a second order in a second order book different  
from the first order book, wherein:  
the second order comprises the first base  
price;  
the second order received from interfaces of  
computing devices of a second group of traders;  
the second order was received after the first  
order;  
the second order is associated with a second  
group of traders different from the first group of  
traders; and  
the second group of traders is associated with  
a second ruleset different from the first ruleset,  
wherein the second ruleset comprises a  
specification of a condition concerning a class of  
price types and a rule to execute an electronic trade  
at a price; and  
receive, from interfaces of computing devices of a  
third group of traders, a counterorder associated with a  
third group of traders, wherein the counterorder matches  
the first order and the second order;  
*before any executing of any portion of the  
counterorder against any portion of the first order, and  
while at least a portion of the first order is available to be  
executed against, execute a first electronic trade  
associated with the second order and the counterorder,  
wherein the first electronic trade is executed according to  
the second ruleset, in which the act of executing the first  
electronic trade comprises executing a quantity of the  
second order against a quantity of the counterorder;*  
*if a portion of the counterorder remains unfilled,  
execute a second electronic trade associated with the first*

*order and the counterorder, wherein the second electronic trade is executed according to the first ruleset;*

*wherein executing the first trade according to the second ruleset comprises executing the first trade at a price comprising a fractional pip value; and*

*in response to determining that the first order satisfies at least one configurable threshold condition, apply a filter to the price of the first order to*

*(a) cause transmission of the price of the first order including a root value and the fractional pip value of the market data to a computing device of a trader, and allow display of the price of the first order including the root value and the fractional pip value of the market data on a trade history display portion of graphical user interface of the computing device of the trader,*

*(b) cause transmission of the root value of the market data, but not the fractional pip value of market data, to computing devices of a plurality of traders, and allow display of the root value of the market data, but not fractional pip value of the market data, on the market data display portions of graphical user interfaces of the computing devices of the plurality of the traders;*

*apply a sequencing order to the first order and the second order to remove suggestion of market priority of the first order and the second order; and*

*redisplay the sequenced first order and the second order to the graphical user interface of the computing devices of the plurality of the traders to prevent attempts to cancel the first order or the second order.*

More particularly, managing a sequence of orders according to trader-specific rules and displaying those orders to traders comprises (i) before executing the first order against a counterorder, executing a first trade between a second order and the counterorder according to second trader-specific rules at a price including a fractional pip value; (ii) executing a

second trade between the first order and any unfulfilled portion of the counterorder according to first trader-specific rules; (iii) in response to determining the first order satisfies a condition, (a) transmitting to a first trader, and allowing display on a GUI, the first order price including a fractional pip value, and (b) transmitting to other trades, and allowing display on a GUI, the first order price without the fractional pip value; (iv) determining an order in which to display the first and second trades; and (v) displaying the trades in the determined order in the other traders' GUIs.

Because claim 1 recites a judicial exception, we next determine whether the claim integrates the judicial exception into a practical application. Guidance, 84 Fed. Reg. at 54. To determine whether the judicial exception is integrated into a practical application, we identify whether there are “*any additional elements recited in the claim beyond the judicial exception(s)*” and evaluate those elements to determine whether they integrate the judicial exception into a recognized practical application. Guidance, 84 Fed. Reg. at 54–55 (emphasis added); *see also* Manual of Patent Examining Procedure (“MPEP”) § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018); Guidance Update, 11.

Here, the additional limitations recited beyond the judicial exception itself fail to 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* Guidance, 84 Fed. Reg. at 55.

Rather, the additional elements simply use computers as tools to implement the abstract idea requiring no more than generic computer elements to perform generic computer functions or add insignificant extra-solution activity. The only additional elements recited in claim 1 are the processor(s) of a computing system, memory device(s) coupled to the processor(s) and storing executable instructions, the two steps of storing the first and second order and the associated information, and the step of receiving a counterorder from the third group of traders.<sup>2</sup>

The generic computer systems and memory devices storing executable instructions are generic computer elements recited at a high level of generality that merely perform generic computer functions to execute the abstract idea. The Specification and claims provide only generic high-level descriptions of these elements, without providing detail indicating these elements include any improvement to existing computers or technology. Spec. 3:5–18, 12:15–13:3, 13:22–30 (describing processor as any combination of software and hardware and explicitly stating that “[i]t should be understood that the internal structure of trading platform 50 and the interfaces, processors, and memory devices associated therewith is malleable and can be readily changed, modified, rearranged, or reconfigured”); *Cf.*

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<sup>2</sup> To the extent the traders’ GUIs on computing devices and the redisplaying step may be considered additional elements, these GUIs (and computing devices) are generic computer elements for the reasons discussed herein, and the redisplaying step is insignificant post-solution activity. Guidance, 84 Fed. Reg. at 55; MPEP § 2106.05(g).

*Berkheimer Memo*<sup>3</sup> § III.A.1. Simply using generic computer components to apply an abstract idea on a computer is insufficient to integrate an abstract idea into a practical application. Guidance, 84 Fed. Reg. at 55; *Alice*, 573 U.S. at 222–26; Guidance Update, 11–12; see *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (a computer “employed only for its most basic function . . . does not impose meaningful limits on the scope of those claims”).

Additionally, the step of redisplaying the sequenced order data on a GUI (and the storing the first and second order and receiving the counterorder steps) are the type of extra-solution activities (i.e., in addition to the judicial exception) the courts have determined insufficient to transform judicially excepted subject matter into a patent-eligible application. See MPEP § 2106.05(g); see also *Trading Techs.*, 921 F.3d at 1093 (determining that receiving market data is routine data gathering and neither the data gathering nor displaying information confers eligibility); *Bilski v. Kappos*, 561 U.S. 593, 612 (2010) (holding the use of well-known techniques to establish inputs to the abstract idea as extra-solution activity that fails to make the underlying concept patent eligible); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (explaining that

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<sup>3</sup> “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)” at 3 (Apr. 19, 2018), available at <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF> (explaining that a specification that describes additional elements “in a manner that indicates that the additional elements are sufficiently well-known that the specification does not need to describe the particulars of such additional elements to satisfy 35 U.S.C. § 112(a)” can show that the elements are well-understood, routine, and conventional).

“selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes”); *Elec. Power*, 830 F.3d at 1354 (recognizing “that merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis”); *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 771 F.Supp.2d 1054, 1066 (E.D. Mo. 2011) *aff’d*, 687 F.3d 1266 (Fed. Cir. 2012) (explaining that “storing, retrieving, and providing data . . . are inconsequential data gathering and insignificant post solution activity”); *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.”).

Therefore, the generic computer elements (i.e., processors of computer systems, memory devices, and traders’ computing devices) and the insignificant pre-solution activity (i.e., the storing the first and second orders and associated information steps and the receiving a counterorder step) do not integrate the abstract idea into a practical application. Appellant does not contend that these generic computer elements render the claimed subject matter patent eligible. Similarly, the GUI itself is a generic computer component, and Appellant does not contend that merely using a GUI to present information integrates the abstract idea into a practical application. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (finding the claimed “interactive interface” failed to provide an inventive concept because, in part, it was “a generic computer element” and Intellectual Ventures did not “assert that it invented an

interactive interface that manages web site content”); Guidance, 84 Fed. Reg. at 55 (explaining that, when “an additional element does no more than generally link the use of a judicial exception to a particular technological environment or field of use,” the additional element does not integrate the abstract idea into a practical application).

Appellant argues that the combination of additional elements integrates the abstract idea into a practical application and adds significantly more to the abstract idea. Appeal Br. 12–16; Reply Br. 2–5. Specifically, Appellant argues the claimed features of applying a sequencing order to the first and second orders and redisplaying the sequenced first and second orders in a GUI is “an improvement to computer performance particularly to electronic systems” by controlling “activity over the network and control[ling] computer workload.” Appeal Br. 12–13 (emphases omitted); Reply Br. 2–5. Appellant also argues the claims improve computers by allowing computers “to perform a function not previously performable by a computer.” Appeal Br. 13 (citing Spec. 15:3–19<sup>4</sup>); Reply Br. 3–4 (arguing the claimed features 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.”). Appellant asserts the claims are similar to claims held eligible by the Federal Circuit. Appeal Br. 14–16 (citing *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018)); Reply Br. 4–6 (citing same). We disagree.

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<sup>4</sup> Appellant actually cites paragraph 52, but that paragraph is from the printed publication, not Appellant’s originally-filed Specification.

First, as discussed above, sequencing the orders and displaying the orders as sequenced is part of the abstract idea of managing a sequence of orders according to trader-specific rules and displaying those orders to traders. An inventive concept “cannot be furnished by the unpatentable law of nature (or natural phenomenon or abstract idea) itself.” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016); see Guidance, 84 Fed. Reg. at 54–55 (explaining that we determine whether a claim integrates the abstract idea into a practical application by “[i]dentifying whether there are any *additional elements* recited in the claim *beyond* the” abstract idea and, if so, “evaluating those *additional elements* individually and in combination” (emphases added)).

Even considering the sequencing and displaying steps under prong two to determine whether they integrate the rest of the abstract idea into a practical application, we disagree with Appellant. Appellant’s claims merely claim ordering two sets of data and displaying that data.

In contrast, the claims held eligible in *Core Wireless* were directed to a GUI providing access to application information from a main menu with the application in an *unlaunched* state. *Core Wireless*, 880 F.3d at 1360, 1359–60, 1362–63. The Federal Circuit determined those claims were not directed to an abstract idea because the “limitations disclose a *specific manner* of displaying a limited set of information to the user, *rather than using conventional user interface methods* to display a generic index on a computer.” *Core Wireless*, 880 F.3d at 1362–63 (emphases added).

However, the Federal Circuit determined claims related to presenting bid prices in a GUI for purposes of electronic trading were “directed to the abstract idea of graphing bids and offers to assist a trader to make an order”

and, therefore, ineligible. *Trading Techs.*, 921 F.3d at 1093. Specifically, the Federal Circuit determined the claimed user interface did “not improve the functioning of the computer, make it operate more efficiently, or solve any technological problem,” but instead recited “a purportedly new arrangement of generic information that assists traders in processing information more quickly.” *Trading Techs.*, 921 F.3d at 1093.

The fact that Appellant’s claims recite a particular order of execution and executing trades using trader-specific rules fails to render the claimed subject matter eligible. *Trading Techs.*, 921 F.3d at 1092 (“The fact that the claims add a degree of particularity as to how an order is placed in this case does not impact our analysis at step one.”). Regarding the sequencing order, as in *Trading Technologies*, “[t]he claims . . . do not improve the functioning of the computer, make it operate more efficiently, or solve any technological problem,” but merely “recite a purportedly new arrangement of generic information that” displays trading orders with equal market priority regardless of actual priority. *Trading Techs.*, 921 F.3d at 1093.

For these reasons, even to the extent the sequence ordering and redisplaying steps are additional elements, considered either individually or in combination, these elements fail to provide a technological improvement or otherwise integrate the abstract idea of managing executing orders according to trader-specific rules.

Appellant suggests the claims improve computer performance, allow a computer to perform an action it could not perform previously, and “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.” Reply Br. 3–4; Appeal Br. 12–13; *see* Reply Br. 2–5. Even accepting Appellant’s suggestion that displaying particular information in a particular order prevents additional transactions, any purported improvement however, relates to the abstract idea, and does not improve a computer, technology, or a technical field. *See McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (“We . . . look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.”) (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016)).

For at least the foregoing reasons, the claims do not integrate the judicial exception into a practical application.

Because we determine the independent claims are directed to abstract ideas, we analyze the claims under step two of *Alice* to determine whether there are additional limitations that individually, or as an ordered combination, ensure the claims amount to “significantly more” than the abstract idea. *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73, 77–79 (2012)). As stated in the Guidance, many of the considerations to determine whether the claims amount to “significantly more” under step two of the *Alice* framework are already considered as part of determining whether the judicial exception has been integrated into a practical application. Guidance, 84 Fed. Reg. at 56. Thus, at this point of our analysis, we determine if the claims add a specific limitation, or combination of limitations, that is not well-understood, routine, conventional activity in the field, or simply appends well-understood,

routine, conventional activities at a high level of generality. Guidance, 84 Fed. Reg. at 56.

Appellant argues the Examiner does not support the finding that the additional elements are well-understood, routine, and conventional. Reply Br. 6. We disagree.

An inventive concept “cannot be furnished by the unpatentable law of nature (or natural phenomenon or abstract idea) itself.” *Genetic Techs.*, 818 F.3d at 1376; *see also* Guidance, 84 Fed. Reg. at 56; *Alice*, 573 U.S. at 217 (explaining that, after determining a claim is directed to a judicial exception, “we then ask, ‘[w]hat else is there in the claims before us?’” (emphasis added, brackets in original) (quoting *Mayo*, 566 U.S. at 78)). Instead, an “inventive concept” is furnished by an element or combination of elements that is recited in the claim *in addition to* the judicial exception and sufficient to ensure the claim as a whole amounts to significantly more than the judicial exception itself. *Alice*, 573 U.S. at 218–19 (citing *Mayo*, 566 U.S. at 72–73); *see BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (explaining that the Supreme Court in *Alice* “only assessed whether the claim limitations *other than the invention’s use of the ineligible concept* to which it was directed were well-understood, routine and conventional,” (emphasis added)).

Appellant does not identify a particular element or combination of elements that allegedly was not conventional, well-understood, and routine. Here, Appellant’s claims fail to recite specific limitations (alone or when considered as an ordered combination) that are not well-understood, routine, and conventional. Rather, the claims merely recite generic computer components (i.e., processors of computer systems, memory devices, and

traders' computing devices) performing generic computing functions that are well-understood, routine, and conventional (i.e., storing data, and receiving, transmitting, organizing, and displaying information). *See Berkheimer Memo* § III.A.1.; *Mort. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (generic computer components, such as an “interface,” “network,” and “database,” fail to satisfy the inventive concept requirement); *Alice*, 573 U.S. at 226 (“Nearly every computer will include a ‘communications controller’ and a ‘data storage unit’ capable of performing the basic calculation, storage, and transmission functions required by the method claims.”); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (finding the claimed “interactive interface” failed to provide an inventive concept because, in part, it was “a generic computer element” and Intellectual Ventures did not “assert that it invented an interactive interface that manages web site content”); Guidance, 84 Fed. Reg. at 55 (explaining that, when “an additional element does no more than generally link the use of a judicial exception to a particular technological environment or field of use,” the additional element does not integrate the abstract idea into a practical application).

Appellant also argues the claims do not preempt all methods of achieving the claimed result. Appeal Br. 17. We disagree. As explained above, the claims do broadly and generically claim using generic computer components to perform an abstract idea. The Examiner correctly notes preemption concerns are addressed by the two-part *Alice* test. Ans. 12. “[W]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.”

*FairWarning IP LLC v. Iatric Sys. Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016) (quoting *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) (“[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”). Further, “[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*, 788 F.3d at 1379.

For the reasons discussed above, we are unpersuaded of Examiner error. Accordingly, we sustain the Examiner’s rejection of claims 1–4, 9–13, and 17–24 as patent ineligible under 35 U.S.C. § 101.

#### CONCLUSION

We affirm the Examiner’s decision rejecting claims 1–4, 9–13, and 17–24 under 35 U.S.C. § 101.

#### DECISION SUMMARY

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1–4, 9–13, 17–24	101	Eligibility	1–4, 9–13, 17–24	

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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. § 41.50(f).

AFFIRMED