

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

IBG LLC, INTERACTIVE BROKERS LLC,
TRADESTATION GROUP, INC., and
TRADESTATION SECURITIES, INC.,
Petitioner,

v.

TRADING TECHNOLOGIES INTERNATIONAL, INC.,
Patent Owner.

CBM2016-00032
Patent 7,212,999 B2

Before SALLY C. MEDLEY, MEREDITH C. PETRAVICK, and
JEREMY M. PLENZLER, *Administrative Patent Judges*.

PETRAVICK, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

INTRODUCTION

A. *Background*

IBG LLC, Interactive Brokers LLC, TradeStation Group, Inc., and TradeStation Securities, Inc. (collectively, “Petitioner”) filed a Petition requesting a covered business method patent review of claims 1–35 of U.S. Patent No. 7,212,999 B2 (Ex. 1001, “the ’999 patent”). Paper 1 (“Pet.”). Trading Technologies International, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 12 (“Prelim. Resp.”).

On August 8, 2016, we instituted a covered business method patent review (Paper 16, “Institution Decision” or “Inst. Dec.”) based upon Petitioner’s assertion that claims 1–35 are directed to patent ineligible subject matter under 35 U.S.C. § 101. Inst. Dec. 28. Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 24, “PO Resp.”) and Petitioner filed a Reply (Paper 29, “Pet. Reply”) to Patent Owner’s Response. Pursuant to our authorization, Patent Owner filed an additional submission addressing the Federal Circuit’s holding in *Technologies International, Inc., v. CQG, Inc.*, 675 Fed.Appx. 1001 (Fed. Cir. 2017) (“CQG”) (Paper 36) and Petitioner filed a reply to that submission (Paper 37). Petitioner filed a Motion to Exclude Evidence (Paper 39, “Pet. MTE”), and Patent Owner filed a Motion to Exclude Evidence (Paper 41, “PO MTE”).

We held a joint hearing of this case and several other related cases on May 3, 2017. Paper 50 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown sufficiently that claims 1–35 of the ’999 patent are directed to patent ineligible subject matter under 35 U.S.C. § 101.

B. Related Proceedings

The ’999 patent is involved in the following lawsuits: *TT v. IBG LLC*, No. 1:10-cv-00721 (N.D. Ill.) and *TT v. TradeStation Securities, Inc.*, 1:10-cv-884 (N.D. Ill.). Pet. 3.

Numerous patents are related to the ’999 patent and the related patents are or were the subject of numerous petitions for covered business method patent review and reexamination proceedings. As noted above, the Federal Circuit has issued a non-precedential decision, *CQG*, which addresses whether claims of U.S. Patent Nos. 6,766,304 (“the ’304 patent”) and 6,772,132 (“the ’132 patent”) are patent eligible under § 101. The ’999 patent at issue in this case is not related to the ’132 and ’304 patents via continuation or divisional filings.

C. Asserted Grounds of Unpatentability

Petitioner contends that the challenged claims are unpatentable under 35 U.S.C. § 101. Pet. 19–35.

D. The ’999 Patent

The ’999 patent describes a graphical user interface (“GUI”) for an electronic trading system that allows a remote trader to view trends for an

item, which assists the trader to anticipate demand for an item. Ex. 1001, 2:3–6. Figure 3A of the '999 patent is reproduced below.

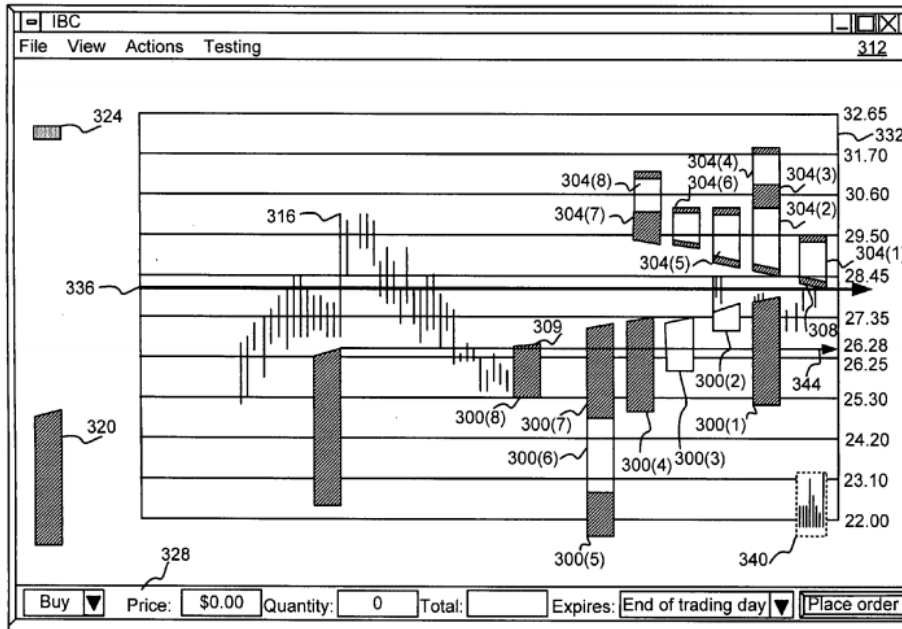


FIG. 3A

Figure 3A depicts a GUI that includes: 1) value axis 332, which indicates the value at which an item is being traded, 2) multiple offer icons 304(1)–304(8), and 3) multiple bid icons 300(1)–300(8). *Id.* at 6:13–15. The offer icons and the bid icons represent orders in the marketplace. *Id.*

A trader can place an order using the GUI in a variety of ways. *Id.* at 8:26–27. The trader can use task bar 328 to enter the required information and submit the order using the “Place Order” button. *Id.* at 8:27–33.

Alternatively, the trader can select offer token 324 or bid token 320 using a pointing device, adjust the size of the token to match a desired quantity, and drag-and-drop the token to a location that corresponds to the desired value of the order. *Id.* at 8:38–58. Either a Buy pop-up window or a Sell pop-up

window is displayed, which allows the trader to modify, cancel, or submit the order. *Id.* at 8:54–65; Figs. 3d, 3e.

E. Illustrative Claim

Claims 1 and 35 are independent claims. Claims 2–34 directly or indirectly depend from claim 1. Claim 1 of the '999 patent is illustrative of the subject matter at issue.

1. A computer based method for facilitating the placement of an order for an item and for displaying transactional information to a user regarding the buying and selling of items in a system where orders comprise a bid type or an offer type, and an order is generated for a quantity of the item at a specific value, the method comprising:

displaying a plurality of bid indicators, each corresponding to at least one bid for a quantity of the item, each bid indicator at a location along a first scaled axis of prices corresponding to a price associated with the at least one bid;

displaying a plurality of offer indicators, each corresponding to at least one offer for a quantity of the item, each offer indicator at a location along a first scaled axis of prices corresponding to a price associated with the at least one offer;

receiving market information representing a new order to buy a quantity of the item for a specified price, and in response to the received market information, generating a bid indicator that corresponds to the quantity of the item bid for and placing the bid indicator along the first scaled axis of prices corresponding to the specified price of the bid;

receiving market information representing a new order to sell a quantity of the item for a specified price, and in response to the received market information, generating an offer indicator that corresponds to the [q]quantity of the item for which the offer is made and placing the offer indicator along the first scaled axis of prices corresponding to the specified price of the offer;

displaying an order icon associated with an order by the user for a particular quantity of the item;

selecting the order icon and moving the order icon with a pointer of a user input device to a location associated with a price along the first scaled axis of prices; and

sending an order associated with the order icon to an electronic trading exchange, wherein the order is of a bid type or an offer type and the order has a plurality of order parameters comprising the particular quantity of the item and the price corresponding to the location at which the order icon was moved.

ANALYSIS

A. *Claim Construction*

In a covered business method patent review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.300(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation approach). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of

ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definition for a claim term must be set forth with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

1. “axis of prices” and “indicators, icons, and tokens”

Petitioner proposes constructions for the following claim terms: “axis of prices” and “indicators, icons, and tokens,” which are recited at least in claims 1, 9, and 35. Pet. 13–17. Patent Owner does not challenge Petitioner’s proposed claim constructions. We have reviewed Petitioner’s proposed constructions and determined that they are consistent with the broadest reasonable constructions for the reason discussed in the Petition.

Id. We adopt the following claim constructions:

Claim Term	Construction
axis of prices	a reference line for plotting prices, including labeled, unlabeled, visible, and invisible reference lines
indicators, icons, and tokens	a symbol such as an alphanumeric character or a graphic representation of an item

B. *Covered Business Method Patent*

Section 18 of the Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284, 329 (2011) (“AIA”) provides for the creation of a transitional program for reviewing covered business method patents. Section 18 limits review to persons or their privies who have been sued or charged with infringement of a “covered business method patent,” which

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does not include patents for “technological inventions.” AIA § 18(a)(1)(B), (d)(1); *see* 37 C.F.R. § 42.302. In compliance with 37 C.F.R. § 42.302(a), Petitioner certifies that it has been sued for infringement of the ’999 patent. Pet. 3.

Based on the record before us, we are apprised of no reason to change the determination in our Institution Decision that at least claim 1 of the ’999 patent is directed to a covered business method. Inst. Dec. 6–13.

1. “Method or Corresponding Apparatus for Performing Data Processing or Other Operations Used in the Practice, Administration or Management of a Financial Product or Service”

The statute defines a “covered business method patent” as

[a] patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service.

AIA § 18(d)(1); *see* 37 C.F.R. § 42.301(a). A covered business method patent can be broadly interpreted to encompass patents claiming activities that are financial in nature. Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention, 77 Fed. Reg. 48734, 48735 (Aug. 14, 2012); *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1338–41 (Fed. Cir. 2016) (determining that a patent was a covered business method patent because it claimed activities that are financial in nature); *Unwired Planet, LLC v. Google, Inc.*, 841 F.3d 1376, n. 5 (Fed. Cir. 2016) (stating that “we endorsed the ‘financial in nature’ portion of the standard as consistent with the

statutory definition of ‘covered business method patent’ in *Blue Calypso*”), *Versata Development Group, Inc. v. SAP America, Inc.*, 793 F.3d 1306, 1324–25 (Fed. Cir. 2015) (“[The statute] on its face covers a wide range of finance-related activities.”).

A patent need have only one claim directed to a covered business method to be eligible for review. 77 Fed. Reg. at 48,736 (Response to Comment 8). We take claim 1 as representative.

Petitioner contends that the ’999 patent is a covered business method patent because the claims recite receiving and displaying market information and sending a trade order to an electronic exchange, which are financial activities. Pet. 4–5 (citing claim 1 of the ’999 patent); Pet. Reply 22–24. Patent Owner does not dispute that the claims are directed to a financial product or service and, instead, contends that the ’999 patent is not a covered business method patent because the claims are not directed to data processing or other business method operations. *See* PO Resp. 52–55. Patent Owner contends that, regardless that some claims recite a method, the claims of the ’999 patent are directed to a device, a GUI tool, and not a data processing or business method claim. *Id.* at 59–60.

Initially we note that a covered business method patent is not limited to only patents that claim a method, as opposed to a device. Covered business method patents include a patent that claims “a method or corresponding apparatus.” AIA § 18(d)(1); *see* 37 C.F.R. § 42.301(a). Claim 1 of the ’999 patent recites: “A computer based method for facilitating the placement of an order for an item and for displaying transactional

information to a user regarding the buying and selling of items” Ex. 1001, 14:7–10. As Petitioner points out, claim 1 recites steps of: 1) displaying market information, including indicators of bids and offers in the market, 2) receiving and displaying market information, including new bids and new offers in the market, 3) displaying, selecting, and moving an order icon to a location along an axis of prices, and 4) sending a trade order to an electronic trading exchange. Pet. 4; Ex. 1001, 14:7–47.

Buying and selling items and sending a trade order to an electronic exchange are activities that are financial in nature. A method for facilitating the placement of an order for an item and for displaying transactional information to a user regarding the buying and selling of items is a method for performing data processing or other operations used in the practice, administration, or management of a financial product or service.

Patent Owner disputes that the ’999 patent claims data processing. PO Resp. 53–55. Patent Owner argues that the statute requires that the “data processing” cause a significant change in the data, and that data processing that merely displays the data, like the data processing disclosed in the ’999 patent, is not significant. *Id.* Patent Owner’s argument is based upon the assumption that “data processing” in the statute is interpreted according to the definition of “data processing” found in the glossary for class 705 of the United States Patent Classification System. *See id* at 53. Patent Owner, however, does not sufficiently explain why this definition is controlling, as opposed to the plain meaning of “data processing.” *See* Ex. 1048 (dictionary definition of “data processing” as “the converting of raw data to machine

readable form and its subsequent processing (as storing, updating, rearranging, or printing out) by a computer.”), Ex. 1049 (dictionary definition of “data processing” as “the rapid handling of large amounts of information, as business data, by means of mechanical, or esp., computer equipment”). We, thus, are not persuaded that “data processing” as recited by the statute precludes data processing for the purpose of displaying the data. The ’999 patent discloses processing market information for display on a client terminal and for sending an order to an exchange. *See e.g.*, Ex. 1001, 10:54–58 (“the order has been processed by the server 200”) 11:2–4 (“server 200 then processes the order information”), 11:42–44 (“the process is repeated”). We, thus, are not persuaded that the ’999 patent does not claim “performing data processing . . . used in the practice, administration, or management of a financial product or service” (AIA § 18(d)(1)).

In any event, the statute does not limit covered business method patents to only those that claim methods for performing data processing used in the practice, administration, or management of a financial product or service. It includes methods for performing “other operations” used in the practice, administration, or management of a financial product or service. Patent Owner’s arguments imply that “other operations” must be “business operations.” *See e.g.*, PO Resp. 52. The statute states that the “other operations” are those that are “used in the practice, administration, or management of a financial product or financial service.” AIA § 18(d)(1). There appears to be no disagreement that the claimed method steps are

operations used in the practice, administration, or management of a commodity or trading a commodity on an electronic exchange, e.g., a financial service. The '999 patent, therefore, at least claims “other operations used in the practice, administration, or management of a financial product or financial service” (AIA § 18(d)(1)).

Patent Owner additionally contends that the Legislative History confirms that the claimed invention is not a covered business method. PO Resp. 58–61. We are not persuaded by Patent Owner’s argument. Although the legislative history includes certain statements that certain novel software tools and graphical user interfaces that are used by the electronic trading industry worker are not the target of § 18 of the AIA (*see* Ex. 2126, S5428, S5433), the language of the AIA, as passed, does not include an exemption for user interfaces for commodities trading from covered business method patent review. Indeed, “the legislative debate concerning the scope of a CBM review includes statements from more than a single senator. It includes inconsistent views” *Unwired Planet*, 841 F.3d at 1381. For example, in contrast to the statements cited by Patent Owner, the legislative history also indicates that “selling and trading financial instruments and other securities” is intended to be within the scope of covered business method patent review. *See* Ex. 2126, S5432 (statements of Sen. Schumer). “[T]he legislative history cannot supplant the statutory definition actually adopted. . . . The authoritative statement of the Board’s authority to conduct a CBM review is the text of the statute.” *Unwired Planet*, 841 F.3d at 1381. Each claimed invention has to be evaluated individually to determine if it is

eligible for a covered business method patent review. A determination of whether a patent is eligible for a covered business method patent review under the statute is made on a case-by-case basis. 37 C.F.R. § 42.301(b).

For the reasons stated above, we are persuaded by Petitioner that the '999 patent "claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service" and meets that requirement of § 18(d)(1) of the AIA.

2. Exclusion for Technological Inventions

Even if a patent includes claims that would otherwise be eligible for treatment as a covered business method, review of the patent is precluded if the claims cover only "technological invention[s]," as defined by 37 C.F.R. §42.301(b). The definition of "covered business method patent" in § 18(d)(1) of the AIA does not include patents for "technological inventions."

To determine whether a patent is for a technological invention, we consider "whether the claimed subject matter as a whole [1] recites a technological feature that is novel and unobvious over the prior art; and [2] solves a technical problem using a technical solution." 37 C.F.R. § 42.301(b). The following claim drafting techniques, for example, typically do not render a patent a "technological invention":

- (a) Mere recitation of known technologies, such as computer hardware, communication or computer networks, software, memory, computer-readable storage medium, scanners, display devices or databases, or specialized machines, such as an ATM or point of sale device.

(b) Reciting the use of known prior art technology to accomplish a process or method, even if that process or method is novel and non-obvious.

(c) Combining prior art structures to achieve the normal, expected, or predictable result of that combination.

Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,763–64 (Aug. 14, 2012).

Both prongs must be satisfied in order for the patent to be excluded as a technological invention. *See Versata*, 793 F.3d at 1326–7; *Apple Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016).

Petitioner contends that the '999 patent is not for a technological invention because the claims fail to recite any technological feature that is novel and unobvious over the prior art, and do not solve a technical problem with a technical solution. Pet. 3–9. In particular, Petitioner argues that the claims recite trading software that is implemented using conventional computer hardware, servers, and networks, directing attention to a description in the '999 patent that generically refers to “personal computers, terminals as part of a network, or any other computing device” and no specific hardware to carry out the invention. *Id.* at 6–7 (citing Ex. 1001, 4:34–36). Petitioner also argues that electronic trading was well known as of the filing date. *Id.* at 7.

Patent Owner disagrees (PO Resp. 56–58), but fails to explain sufficiently how the *claimed* subject matter recites a technological feature that is novel and unobvious over the prior art or solves a technical problem using a technical solution.

We are persuaded by Petitioner’s contentions that at least claim 1 of the ’999 patent does not recite a novel and non-obvious technological feature. For example, the “BACKGROUND OF THE INVENTION” section of the ’999 patent explains that it was well known for an exchange to record all transactions for a particular item and to replay or post to the individual traders outstanding bids with the highest values and outstanding offers with the lowest value, along with a quantity specified for each order, to facilitate trading a commodity. Ex. 1001, 1:31–41. There is no indication in the ’999 patent that the inventors invented gathering market information, displaying it to a trader, and using the information to facilitate trading a commodity. *See* PO Resp. 57–58 (“This is correct.”). The use of a computer to perform these functions also was known in the art at the time of the invention, and the ’999 patent does not claim any improvement of a computing device.

Patent Owner argues that the ’999 patent is for a technological invention because the claims are directed to a novel and nonobvious GUI tool that improves, and transforms, a computer so it can perform functions it previously could not. PO Resp. 56–58. We disagree that claim 1, for example, is directed to a novel and nonobvious GUI tool that improves, and transforms, a computer so it can perform functions it previously could not. Patent Owner’s arguments in that regard are conclusory, and not directed to any specific language from the claims themselves. As explained above, claim 1 is directed to a method for facilitating the placement of an order for an item and for displaying transactional information to a user regarding the

buying and selling of items, that requires receiving and displaying market information, including indicators of bids and offers in the market and displaying, selecting, and moving an order icon to a location along an axis of prices, and sending a trade order to an electronic trading exchange. Ex. 1001, 14:7–47. Moreover, there is no specific computer, program, or processing described in the '999 patent beyond what was known in the art at the time of the invention.

Given the above, we determine that claim 1 does not recite a technological feature that is novel and unobvious over the prior art. Because both prongs must be satisfied for a patent to be excluded from covered business method patent review for being a technological invention, we find that the '999 patent is eligible for a covered business method patent review for at least the reason that claim 1 fails to recite a technological feature that is novel and unobvious.

Notwithstanding our determination above, we also are persuaded by Petitioner that the '999 patent does not solve a technical problem with a technical solution.

Petitioner also argues that the claimed subject matter does not solve a technical problem using a technical solution, because the problem is a financial one and the solution is to rearrange available market data on a display. Pet. 8–9. In contrast, Patent Owner argues that the claimed subject matter recites a new GUI design (a new technology) that addressed the problem with the old GUI design, and, thus, is directed to solving a technical problem using a technical solution. PO Resp. 56–58. Patent Owner states

“GUI design is a technology, so new GUIs designed to improve conventional GUIs are necessarily technological solutions to technological problems.” *Id.* at 56.

We are persuaded by Petitioner that the problem disclosed in the ’999 patent is not a technical one. The ’999 patent’s specification highlights the problem and importance of informing a trader of certain stock market events so that the trader may use such information to facilitate trading a commodity. Ex. 1001, 2:19–26. The ’999 patent states:

The successful trader anticipates the rise or fall of the value of an item and performs his or her own transaction before[]the rest of the market is aware of the item’s potential gain or loss in value. Thus, anticipation of the market is specifically of the future demand for an item of interest is critical to the success of a trader.

Ex. 1001, 1:20–26.

The ’999 patent explains that traders use latest order information and other information, including historical transaction data, to anticipate the market and that “it is often difficult for a trader to quickly assemble this information from diverse and often unrelated sources or even effectively process all of this information in order to make an informed transaction decision.” *Id.* at 1:51–54. Informing a trader of certain stock market trends or events is more of a financial problem than a technical problem. The ’999 patent solves this problem by “present[ing] this information in an intuitive format, allowing the trader to make informed decisions quickly.” *Id.* at 2:39–41. We are persuaded by Petitioner that the ’999 patent does not solve a technical problem with a technical solution. Further, as discussed above,

claim 1 requires the use of only known technology.

Patent Owner proffers the testimony of Eric Gould-Bear and Dan Olsen to show that GUIs are technology and the claimed invention is a technical solution to a technical problem. *See, e.g.*, PO Resp. 19–21 (citing Ex. 2168 ¶¶ 23–38, Ex. 2174 ¶¶ 13–15, Ex. 2169 ¶¶ 16–18 testimony of Eric Gould-Bear, Dan Olsen, and Christopher Thomas, respectively). The testimony of Mr. Gould-Bear, Dr. Olsen, and Mr. Christopher Thomas is unpersuasive because, although their testimony addresses related patents, it does not specifically address the claimed invention of the '999 patent. For example, Mr. Gould-Bear's testimony is directed to U.S. Patent No 7,904,374. *See* Ex. 2168 ¶ 1. Likewise, Dr. Olsen's testimony is not directed to the claimed invention of the '999 patent. *See* Ex. 2174 ¶ 6, Ex. 2169 ¶ 2. The claims of U.S. Patent No 7,904,374 recite features not recited by the claims of the '999 patent.

Given this, we are persuaded that at least claim 1 does not solve a technical problem using a technical solution and does not satisfy the second prong of 37 C.F.R. § 42.301(b).

3. Conclusion

In view of the foregoing, we conclude that the '999 patent is a covered business method patent under AIA § 18(d)(1) and is eligible for review using the transitional covered business method patent program.

C. Section 101 Patent-Eligible Subject Matter

Petitioner challenges claims 1–35 of the '999 patent as directed to patent-ineligible subject matter under 35 U.S.C. § 101. Pet. 19–35. Patent Owner disagrees. PO Resp. 3–50

Under 35 U.S.C. § 101, we must first identify whether an invention fits within one of the four statutorily provided categories of patent-eligibility: “processes, machines, manufactures, and compositions of matter.” *Ulramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 713–14 (Fed. Cir. 2014).

Initially, we note that Petitioner asserts that independent claim 35 of the ’999 patent is invalid because it encompasses a transitory, propagating signal that is encoded, which is subject matter that does not fall into any of the four statutory classes of § 101. Pet. 25 (citing *In re Nuijten*, 550 F.3d 1346, 1352 (Fed. Cir. 2007)); Pet. Reply 18. In our Institution Decision, we determined that the broadest reasonable interpretation, in light of the specification of the ’999 patent, encompasses transitory media, but we noted that our construction was preliminary and specifically indicated that “[t]he broadest reasonable interpretation, in light of the specification, of ‘recorded’ is an issue that requires further development of the record.” Inst. Dec. 15.

Patent Owner responds that there is no evidence to support Petitioner’s contention that one skilled in the art would have understood “computer readable medium having program code recorded thereon” to encompass a signal at the time of the invention. PO Resp. 48. Petitioner responds to Patent Owner’s contentions by simply asserting that “the Board should apply the same BRI of ‘computer readable medium’ that the PTO has applied in thousands of matters.” Pet. Reply 22–24 (citing Manual of Patent Examining Procedures § 2106, *Ex parte Mewherter*, 107 USPQ2d 1857(PTAB 2013) (precedential)).

Petitioner’s response is unhelpful. Petitioner fails to offer sufficient evidence or persuasive argument as to how one skilled in the art would have understood the phrase “computer readable medium having program code recorded thereon” as it relates to the ’999 patent. At oral hearing, when asked why no evidence was provided in this regard, Petitioner had no explanation other than “it would be difficult . . . because this is a term of art in the patent field” and “you can[not] go to an IEEE dictionary and find necessarily a dictionary definition that would be helpful here.” Tr. 71:4–10.

Accordingly, on this record, we are not persuaded by Petitioner that at the time of the invention one skilled in the art would have understood “computer readable medium having program code recorded thereon” as encompassing transitory, propagating signals.

Even if claim 35 fits within one of the categories of patent-eligibility, we are persuaded that claims 1–35 do not recite patent-eligible subject matter for the reasons that follow.

1. Eligibility

Patent-eligible subject matter is defined in § 101 of the Patent Act, which recites:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

There are, however, three judicially created exceptions to the broad categories of patent-eligible subject matter in § 101: laws of nature, natural phenomena, and abstract ideas. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134

S. Ct. 2347, 2354 (2014); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012). Although an abstract idea, itself, is patent-ineligible, an application of the abstract idea may be patent-eligible. *Alice*, 134 S. Ct. at 2355. Thus, we must consider “the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (citing *Mayo*, 132 S. Ct. at 1297–98). The claim must contain elements or a combination of elements that are “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself.” *Id.* (citing *Mayo*, 132 S. Ct. at 1294).

2. Abstract Idea

“The ‘abstract idea’ step of the inquiry calls upon us to look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas v. DirectTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). “The § 101 inquiry must focus on the language of the Asserted Claims themselves.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016); *see also Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) (admonishing that “the important inquiry for a § 101 analysis is to look to the claim”); *Content Extraction & Transmission LLC v. Wells Fargo Bank*,

Nat'l Ass'n, 776 F.3d 1343, 1346 (Fed. Cir. 2014) (“We focus here on whether the claims of the asserted patents fall within the excluded category of abstract ideas.”).

According to Petitioner, the challenged claims are directed to the abstract idea of graphing (or displaying) bids and offers to assist a trader to make an order. Pet. 19–20. This is consistent with claim 1 of the ’999 patent. Claim 1 is representative of independent claims 1 and 35. Claim 1 recites a “method for facilitating the placement of an order for an item and for displaying transactional information to a user regarding the buying and selling of items.” Claim 1 recites multiple steps of receiving and displaying market information, including indicators of bids and offers in the market, of new bids and offers in the market, and of an order by the user. Claim 1 also recites steps that require sending an order to an electronic trading exchange. The focus of the claim is on collecting and displaying market order information so that a user (i.e., a trader) can place an order. The disclosure of the purported problem solved by the ’999 patent is consistent with this focus. The ’999 patent discloses that the difference between its system and “conventional systems” is that its system displays all of the outstanding bid and offer orders and not just the highest bid and lowest offer to a trader. Ex. 1001, 2:15–19, 2:28–38. A trader having such information is at an advantage because the trader can better anticipate the market and future demand for an item when placing an order. *Id.* at 1:26–58. Collecting information and displaying the information, without more, is within the realm of abstract ideas. *Electric Power Group, LLC v. Alstom S.A.*, 830 F.2d

1350, 1352 (Fed. Cir. 2016).

Claim 1 does not recite any limitation that specifies how the computer implements the steps. *See* PO Resp. 57 (“the claims are to the functioning of GUI tool, not to the underlying computer by itself or to how instructions in software to provide a particular interface to an application are translated by the computer to control the individual pixels of a screen.”) For example, claim 1 recites displaying an arrangement of the market information. Claim 1 requires displaying bid and offer indicators along a scaled axis of prices. *Id.* at 14:13–22. The ’999 patent does not disclose an unconventional or improved method of mapping the bid indicators, offer indicators, or scaled price axis to the display. As Petitioner points out, numerous prior art references disclose that plotting bids and offers along a price axis was conventional in the electronic trading art. *See* Pet. Reply 4 (citing Ex. 1016, 0107, Ex. 1023, Fig. 2b, Ex. 1022, Figs. 4–5, Ex. 1050, Fig. 5A).

We agree with Petitioner that the abstract idea of graphing (or displaying) bids and offers to assist a trader to make an order is a fundamental economic practice or a process that can be performed using pen and paper. Pet. 23; *see also* Ex. 1012 ¶¶ 69–71, 81 (supporting testimony of Kendyl Roman). The ’999 patent discloses that it was known for traders on an exchange to use information, such as highest bid, lowest offer, historical transaction data, etc., when making a trade. *See* Ex. 1001, 1:13–58. Exhibit 1027 discloses that long before the ’999 patent, traders maintained books that plotted bids and asks (e.g., the market depth) along a price axis. *See* Ex. 1027, 44–46. Figure 4-2 of Exhibit 1027 is reproduced below.

FIGURE 4-2. A page in the specialist's book.

BUY		SELL
BKR R - 100	22	
BKR L - 300 BKR A - 500	1/8	
BKR D - 200 BKR E - 300	1/4	
	3/8	
	1/2	
	5/8	BKR F - 300 BKR G - 600
	3/4	BKR B - 100 BKR M - 200
	7/8	BKR S - 400

Figure 4-2 depicts a page of a book of a trader. *Id.* at 44–45. Orders to buy or sell a commodity are plotted along a prices axis. For example, Figure 4-2 shows the best bid at $22\frac{1}{4}$ and the best ask at $22\frac{5}{8}$. *Id.* at 44.

Given this, we determine that placing an order based on displayed market information, such as the inside market and a few other orders, as well as updating the market information is a fundamental economic and conventional business practice.

The claims at issue here are like the claims at issue in *Affinity Labs*. In *Affinity Labs*, the claim at issue recited an application that enabled a cellular telephone to present a GUI displaying a list of media sources that included selectable items for selecting a regional broadcasting channel. *Affinity Labs*, 838 F.3d at 1255–56. The claim also recited that the cellular telephone was enabled to transmit a request for the selected regional broadcasting channel. *Id.* at 1256. The claims at issue here are also like the claims at issue in

Apple, Inc. v. Ameranth, Inc., 842 F.3d 1229 (Fed. Cir. 2016). In *Ameranth*, the claim at issue recited a GUI that displayed menu items in a specific arrangement, a hierarchical tree format. Menu items were selected to generate a second menu from a first menu. *Ameranth* 842 F.3d at 1234. In both *Affinity Labs* and *Ameranth*, the court determined that the claims were not directed to a particular way of programming or designing the software, but instead merely claimed the resulting systems. The court thus determined that the claims were not directed to a specific improvement in the way computers operate. *Affinity Labs*, 838 F.3d at 1260–61; *Ameranth*, 842 F.3d at 1241. Here, the claims also recite the resulting display and are not directed to specific improvements in the way the computers operate. “Though lengthy and numerous, the claims [that] do not go beyond requiring the collection, analysis, and display of available information in a particular field, stating those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology” are patent ineligible. *Elec. Power Group*, 830 F.3d at 1351. “Generally, a claim that merely describes an ‘effect or result dissociated from any method by which [it] is accomplished’ is not directed to patent-eligible subject matter.” *Ameranth*, 842 F.3d at 1244 (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015)).

Claim 1 of the ’999 patent is unlike the claims at issue in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) and *Enfish*. In *DDR Holdings*, the court determined that the claims did not

embody a fundamental economic principle or a longstanding commercial practice. The claims at issue in *DDR Holdings* were directed to retaining website visitors, which the court determined was a problem “particular to the Internet.” *DDR Holdings*, 773 F.3d at 1257. The court also determined that the invention was “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks” and that the claimed invention did not simply use computers to serve a conventional business purpose. *Id.* In *Enfish*, the claim at issue was directed to a data storage and retrieval system for a computer memory. *Enfish*, 822 F.3d at 1336–37. The court determined that the claims were directed to an improvement in the functioning of a computer and were not simply adding conventional computer components to well-known business practices. *Id.* at 1338. Here, in contrast, claim 1 is directed to a fundamental economic principle or a longstanding commercial practice and not directed to an improvement in the computer: it is directed simply to the use of a display in a method for facilitating the placement of an order for an item and for displaying transactional information to a user regarding the buying and selling of items.

Further, claim 1 of the ’999 patent is unlike the claims at issue in *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d. 1299 (Fed. Cir. 2016). In *McRO*, the court held that claims that recited “a specific asserted improvement in computer animation” were not directed to an unpatentable abstract idea because they go “beyond merely organizing existing information into a new form or carrying out a fundamental

economic practice.” *McRO*, 837 F.3d at 135. Here, the claims merely organize existing market information along a price axis.

Patent Owner argues that the claims of the ’999 patent are similar to those of the ’304 patent and the ’132 patent found to be eligible in *CQG*. Paper 36. The claims of the ’999 patent are different from and are broader in some aspects than the claims of the ’304 patent and ’132 patent. *See* Paper 37, 1. For example, claim 1 of the ’999 patent does not require a static price axis or single action order entry. *Id.* In *CQG*, the court indicated that even those narrower claims are on the line between patent eligibility and ineligibility (*see id.* at *4 (noting the “close question[] of eligibility”). The specification of the ’999 patent is different from those in the ’304 patent and the ’132 patent. Thus, comparing the claims of the patents involved in *CQG* is not particularly helpful here.

3. *Inventive Concept*

To be patent eligible, a claim directed to an abstract idea must recite additional elements that constitute an inventive concept. *Alice*, 134 S. Ct. at 2357. One looks to “[t]he elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* at 2355 (quoting *Mayo*, 132 S. Ct. at 1297–98). The additional elements must be more than “well-understood, routine, conventional, activity.” *Mayo*, 132 S. Ct. at 1298.

Petitioner contends that claim 1 does not recite an inventive concept. Pet. 25–28; Pet. Reply 15–18. Patent Owner disagrees. PO Resp. 24–26.

Claim 1 does not recite elements or a combination of elements that are “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself.” *Alice*, 134 S. Ct. at 2355 (citing *Mayo*, 132 S. Ct. at 1294). Receiving market information is nothing more than a routine data gathering step. *See* Ex. 1001, 1:31–35. Routine data gathering does not transform the abstract idea into a patent-eligible invention. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011) (holding “[t]he mere collection and organization of data” patent-ineligible). Displaying information as indicators along a scaled price axis is well-understood, routine, conventional activity (*see* Ex. 1016, 0107, Ex. 1023, Fig. 2b, Ex. 1022, Figs. 4–5, Ex. 1027, Ex. 1050, Fig. 5A) that does not add significantly more to the abstract idea. *See Mayo*, 132 S. Ct. at 1298,

Patent Owner contends that combination of displaying market information and selecting and moving an icon to place an order is an inventive concept that transforms the abstract idea into a particular application. PO Resp. 24–26. Patent Owner relies upon the testimony of Mr. Christopher Thomas to show that “the claimed combination did not exist prior to the invention in either the physical world or as a GUI.” *Id.* at 22 (citing Ex. 2169 ¶¶ 41, 46–53). Mr. Thomas’s testimony is unpersuasive because, as discussed above, it does not specifically address the claimed invention of the ’999 patent. *See* Ex. 2169 ¶¶ 1, 43 (discussing U.S. Patent No 7,904,374). Selecting and moving an icon is a well-understood, routine, conventional activity that does not add significantly more to the abstract

idea. *See* Ex. 1029, 247–249 (disclosing that drag-and-drop (i.e., clicking and hold a button while moving some object across a screen) is old and well known). Conventional post-solution activity is not sufficient to transform the abstract idea into patent-eligible subject matter. *See Parker v. Flook*, 437 U.S. 584, 590–92 (1978). The claim requires nothing more than a generic computer to perform the method of claim 1.

The individual elements of the claim do not transform the nature of the claim into a patent-eligible application. They do not add significantly more to the abstract idea or fundamental economic practice. Contrary to Patent Owner’s argument, the claim simply recites the use of a generic computer with routine and conventional functions. Even considering all of the elements as an ordered combination, the combined elements also do not transform the nature of the claim into a patent-eligible application.

For the reasons discussed above, claims 1 and 35 of the ’999 patent are not directed to patent eligible subject matter under 35 U.S.C. § 101.

Petitioner contends that the additional elements recited by dependent claims 2–34 do not add significantly more to the abstract idea so as to render the claims patent-eligible. Pet. 33–35. Patent Owner makes no arguments specifically directed to the additional elements of these claims. We also have considered the other claims of the ’999 patent and, for similar reasons, the claims 2–34 are not directed to patent eligible subject matter.

D. Motions to Exclude

Petitioner moves to exclude various ones of Patent Owner’s Exhibits. Pet. MTE 2–10. Because the outcome of this trial does not change based on

whether or not we exclude those exhibits, we *dismiss* Petitioner's Motion to Exclude as moot.

Patent Owner moves to exclude certain testimony of its declarant Mr. Christopher Thomas. PO MTE 1–8 (seeking to exclude Ex. 1047, 248, 263–269). Because we did not rely upon this testimony in our decision, we *dismiss* Patent Owner's Motion to Exclude as moot.

CONCLUSION

For the foregoing reasons, we determine that Petitioner has shown, by a preponderance of the evidence, that claims 1–35 of the '999 patent are patent-ineligible under 35 U.S.C. § 101.

ORDER

For the reasons given, it is:

ORDERED that claims 1–35 of the '999 patent are patent-ineligible under 35 U.S.C. § 101;

FURTHER ORDERED that Petitioner's Motion to Exclude Evidence and Patent Owner's Motion to Exclude Evidence are *dismissed*; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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