

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

TRADING TECHNOLOGIES INTERNATIONAL, INC.,
Patent Owner.

Case CBM2015-00181
Patent 7,676,411 B2

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

PLENZLER, *Administrative Patent Judge*.

DECISION
Institution of Covered Business Method Patent Review
37 C.F.R. § 42.208

INTRODUCTION

A. Background

IBG LLC, Interactive Brokers LLC, TradeStation Group, Inc., TradeStation Securities, Inc., TradeStation Technologies, Inc., and IBFX, INC. (collectively, “Petitioner”) filed a Petition on September 11, 2015 requesting covered business method patent review of claims 1–28 (the “challenged claims”) of U.S. Patent No. 7,676,411 B2 (Ex. 1001, “the ’411 patent”). Paper 7 (“Pet.”). On December 30, 2015, Trading Technologies International, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 22 (“Prelim. Resp.”).

We have jurisdiction under 35 U.S.C. § 324, which provides that a covered business method patent review may not be instituted “unless . . . it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.”

Upon consideration of the Petition and Preliminary Response, we determine that Petitioner has demonstrated that it is more likely than not that the challenged claims are unpatentable. Accordingly, we institute a covered business method review of claims 1–28 of the ’411 patent.

B. Expanded Panel Request

Patent Owner suggests that the decision on institution be made by an expanded panel of administrative patent judges. Prelim. Resp. 80. Discretion to expand a panel rests with the Chief Judge, who, on behalf of the Director, may act to expand a panel on a suggestion from a judge or panel. *AOL Inc. v. Coho Licensing LLC*, Case IPR2014-00771, slip op. at 2 (PTAB Mar. 24, 2015) (Paper 12) (informative). Patent Owner’s suggestion was considered by the Acting Chief Administrative Patent Judge, who declined to expand the panel.

C. Related Proceedings

The parties indicate that the '411 patent is the subject of numerous related U.S. district court proceedings. Pet. 2; Paper 11, 2–6.

The '411 patent was the subject of a petition for covered business method patent review in *TD Ameritrade Holding Corp. v. Trading Technologies International, Inc.*, CBM2014-00133 (PTAB), for which trial was instituted, but later terminated.

Numerous patents are related to the '411 patent and the related patents are or were the subject of numerous petitions for covered business method patent review and reexamination proceedings.

D. Asserted Grounds

Petitioner contends that the challenged claims are unpatentable under 35 U.S.C. §§ 101 and 103 based on the following grounds (Pet. 14–80).

References	Basis	Claims Challenged
N/A	§ 101	1–28
Silverman ¹ , Gutterman ² , Belden ³ , and Togher ⁴	§ 103	1–10 and 12–28
Silverman, Gutterman, Belden, Togher, and Paal ⁵	§ 103	11
TSE ⁶ , Belden, and Togher	§ 103	1–28

¹ U.S. Pat. No. 5,077,665, iss. Dec. 31, 1991 (Ex. 1003, “Silverman”).

² U.S. Pat. No. 5,297,031, iss. Mar. 22, 1994 (Ex. 1004, “Gutterman”).

³ PCT Pub. No. WO 90/11571, pub. Oct. 4, 1990 (Ex. 1009, “Belden”). The page numbers referenced herein are those at the bottom of each page.

⁴ U.S. Pat. No. 5,375,055, iss. Dec. 20, 1994 (Ex. 1005, “Togher”).

⁵ U.S. Pat. No. 5,263,134, iss. Nov. 16, 1993 (Ex. 1018, “Paal”).

⁶ Tokyo Stock Exchange Operation System Division, Futures/Option Purchasing System Trading Terminal Operation Guide (1998) (Ex. 1006). Citations to this reference refer to its English translation (Ex. 1007).

Petitioner provides testimony from David Rho (Ex. 1023; “the Rho Declaration) and Kendyl A. Román (Ex. 1019; “the Román Declaration”) to support its challenges.

E. The '411 Patent

The '411 patent is titled “Click Based Trading with Intuitive Grid Display of Market Depth.” Ex. 1001, (54). The '411 patent describes a display, named the “Mercury” display, and method of using the display to trade a commodity. *Id.* at Abstract, 3:9–14. The '411 patent explains that the Mercury display is a graphic user interface (“GUI”) that dynamically displays the market depth of a commodity traded in a market and allows a trader to place an order efficiently. *Id.* at 3:15–28. The Mercury display is depicted in Figure 3, which is reproduced below.

FIG. 3

SYCOM FGBL DEC99					
E/W	10:48:44	BidQ	AskQ	Prc	LTQ
L	3		104	99	
R	5		24	98	
	720		33	97	
X	10		115	96	
	0				
	10 1H		32	95	
	50 3H		27	94	
S 0 W 24	1K 5H		63	93	
S 0 W 7	CLR		45	92	
X	10		28	91	
	17		20	90	10
B 0 W 15	CXL	18		89	
B 0 W 13	+ -	97		88	
	NET 0	30		87	
B 0 W 17	NET REAL	43		86	
		110		85	
		23		84	
		31		83	
		125		82	
		21		81	

Figure 3 of the '411 patent illustrates an example of the Mercury display with example values for trading a commodity including prices, bid and ask quantities relative to price, and trade quantities.

The Mercury display includes a plurality of columns. Column 1005 is a static price axis, which includes a plurality of price values for the commodity. *See id.* at 7:55–66. The '411 patent explains that “[t]he column does not list the whole prices (e.g. 95.89), but rather, just the last two digits (e.g. 89).” *Id.* at 7:57–58. Columns 1003 and 1004 are aligned with the static price axis and dynamically display bid and ask quantities, respectively, for the corresponding price values of the static price axis. *See id.* at 7:54–8:16. The '411 patent explains that “[t]he exchange sends the price, order and fill information to each trader on the exchange” and that “[t]he physical

mapping of such information to a screen grid can be done by any technique known to those skilled in the art.” *Id.* at 4:63–5:3.

Column 1002 contains various parameters and information used to execute trades, such as the default quantity displayed in cell 1016. *See id.* at 8:35–9:3. A trader executes trades using the Mercury display by first setting the desired commodity and default parameters, such as default quantity. *See id.* at 9:35–49; Fig. 6, step 1302. Then, a trader can send a buy order or sell order to the market with a single action, such as clicking on the appropriate cell in column 1003 or 1004. *See id.* at 9:35–10:32; Fig. 6, steps 1306–1315.

F. Illustrative Claim

As noted above, Petitioner challenges claims 1–28. Claims 1 and 26 are independent. Claim 1 is illustrative of the claimed subject matter and is reproduced below:

1. A method of displaying market information relating to and facilitating trading of a commodity being traded on an electronic exchange, the method comprising:

receiving, by a computing device, market information for a commodity from an electronic exchange, the market information comprising an inside market with a current highest bid price and a current lowest ask price;

displaying, via the computing device, a bid display region comprising a plurality of graphical locations, each graphical location in the bid display region corresponding to a different price level of a plurality of price levels along a price axis;

displaying, via the computing device, an ask display region comprising a plurality of graphical locations, each graphical location in the ask display region corresponding to a different price level of the plurality of price levels along the price axis;

dynamically displaying, via the computing device, a first indicator representing quantity associated with at least one

trade order to buy the commodity at the current highest bid price in a first graphical location of the plurality of graphical locations in the bid display region, the first graphical location in the bid display region corresponding to a price level associated with the current highest bid price;

upon receipt of market information comprising a new highest bid price, moving the first indicator relative to the price axis to a second graphical location of the plurality of graphical locations in the bid display region, the second graphical location corresponding to a price level of the plurality of price levels associated with the new highest bid price, wherein the second graphical location is different from the first graphical location in the bid display region;

dynamically displaying, via the computing device, a second indicator representing quantity associated with at least one trade order to sell the commodity at the current lowest ask price in a first graphical location of the plurality of graphical locations in the ask display region, the first graphical location in the ask display region corresponding to a price level associated with the current lowest ask price;

upon receipt of market information comprising a new lowest ask price, moving the second indicator relative to the price axis to a second graphical location of the plurality of graphical locations in the ask display region, the second graphical location corresponding to a price level of the plurality of price levels associated with the new lowest ask price, Wherein the second graphical location is different from the first graphical location in the ask display region;

displaying, via the computing device, an order entry region comprising a plurality of graphical areas for receiving single action commands to set trade order prices and send trade orders, each graphical area corresponding to a different price level along the price axis; and

selecting a particular graphical area in the order entry region through a single action of the user input device to both set a

price for the trade order and send the trade order having a default quantity to the electronic exchange.

Ex. 1001, 12:23–13:16.

ANALYSIS⁷

A. Claim Construction

In a covered business method patent review, claim terms are given their broadest reasonable interpretation in light of the specification in which they appear and the understanding of others skilled in the relevant art. *See* 37 C.F.R. § 42.300(b); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015), *cert. granted sub nom. Cuozzo Speed Techs., LLC v. Lee*, 84 U.S.L.W. 3218 (U.S. Jan. 15, 2016) (No. 15-446).

Applying that standard, we interpret the claim terms of the ’411 patent according to their ordinary and customary meaning in the context of the patent’s written description. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms must be set forth with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Petitioner proposes a construction for “single action” (Pet. 14), and Patent Owner offers no proposed claim

⁷ Both Petitioner and Patent Owner reference our prior decision denying institution in CBM2014-00133 and decisions of district courts in related proceedings. We do not give much, if any, deference to our prior decisions and the decisions of the district courts in determining whether to institute a covered business method patent review in this proceeding. Those prior decisions were based on different parties, different evidence, and in the case of the district court proceedings based on different standards of proof and claim construction standards. Additionally, we give no consideration to the arguments Patent Owner presents in letters sent to the Director of the United States Patent and Trademark Office.

constructions. For purposes of this Decision, we determine that the only terms requiring an express construction in order to conduct properly our analysis are those discussed below.

1. “single action” limitations

Petitioner contends that

The specification defines this term: “any action by a user within a short period of time, whether comprising one or more clicks of a mouse button or other input device, is considered a single action of the user for the purposes of the present invention.” (’411 patent, 4:18-22; Román Decl., ¶ 78.)

Pet. 14. Patent Owner does not dispute this construction. Upon review, we agree, and adopt that construction for purposes of this decision.

Each of the independent claims recites the “single action.” Claim 1 recites “a plurality of graphical areas for receiving single action commands to set trade order prices and send trade orders” and “selecting a particular graphical area in the order entry region through a single action of the user input device to both set a price for the trade order and send the trade order having a default quantity to the electronic exchange.” Claim 26 similarly recites “displaying . . . an order entry region comprising a plurality of graphical areas for receiving single action commands to set trade order prices and send trade orders” and “selecting a particular graphical area in the order entry region through a single action of the user input device to both set a price for the trade order and send the trade order having a default quantity to the electronic exchange.”

The scope of “single action” limitations in the ’411 patent is different than the scope of the “single action” limitations found in claims 1, 14, and

28 of U.S. Patent No. 6,772,132 B1 (“the ’132 patent”)⁸, which is the subject of CBM2015-00182. Contrary to the language of the claims of the ’132 patent, the plain language of claims 1 and 26 of the ’411 patent requires that a single action of the user input device sets a trade order price and sends the trade order (i.e., claims 1 and 26 of the ’411 patent require displaying graphical areas for receiving a single action command that sets a trade order price and sends the trade order and selecting a particular graphical area through a single action to both set a price for the trade order and send the trade order). This is consistent with the specification of the ’411 patent, which describes setting trade parameters and sending a trade order based on a single action. *See* Ex. 1001, 10:24–11:35.

2. *“computer readable medium having program code recorded thereon”*

Claims 26–28 recite a “computer readable medium having program code recorded thereon.” Petitioner contends that “[u]nder the broadest reasonable interpretation (‘BRI’), the scope of this term is broad enough to encompass a transitory, propagating signal that is encoded.” Pet. 17. Petitioner explains that the specification neither defines this term nor provides examples. *Id.* Patent Owner does not provide a proposed construction for this limitation, but implies that the word “recorded” limits the claim to non-transitory media. *See* Prelim. Resp. 53–54. Patent Owner does not dispute that the specification of the ’411 patent neither defines this term nor provides examples for a “computer readable medium,” and after

⁸ The ’411 patent is a continuation filing of the application that resulted in the ’132 patent (App. Serial No. 09/590,692). Ex. 1001, (63), 1:6–12.

reviewing the specification we see no reference to “computer readable medium” other than that in the claims.

The addition of the phrase “having program code recorded thereon” to “computer readable medium” does not limit the medium to non-transitory media. A definition of the verb “record” is “to set down in writing” or “to cause (as sound, visual images, or data) to be registered on something (as a disc or magnetic tape) in reproducible form).” Ex. 3001 (Merriam-Webster’s Collegiate Dictionary, 10th ed. definition of record). This definition does not preclude the program code from being recorded, albeit temporarily, on transitory media. *See Ex parte Mewherter*, 107 USPQ2d 1857, 1859–60 (PTAB 2013) (precedential) (determining that a computer readable storage medium having a computer program stored thereon encompasses transitory propagating signals).

On this record, we determine that the broadest reasonable interpretation of “computer readable medium having program code recorded thereon” is any medium that participates in providing instruction to a processor for execution and having program code recorded thereon.

B. Covered Business Method Patent

Section 18 of the AIA⁹ provides for the creation of a transitional program for reviewing covered business method patents. A “covered business method patent” is 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, except that the term does not include patents for technological inventions.”

⁹ Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284, 329 (2011) (“AIA”).

AIA § 18(d)(1); *see* 37 C.F.R. § 42.301(a). A patent need have only one claim directed to a covered business method to be eligible for review. *See* Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention, 77 Fed. Reg. 48,734, 48,736 (Aug. 14, 2012) (“CBM Rules”) (Comment 8).

In this Petition, Petitioner contends that “while a patent needs only one claim directed to a CBM to be eligible for CBM review, all the claims qualify,” and particularly cites claims 1, 7, 8, and 10. Pet. 4.

1. Financial Product or Service

With respect to claim 1, Petitioner asserts that it is directed to a covered business method because it recites activities that are financial in nature, including displaying market information and sending a trade order. *Id.* Based on this record, we agree with Petitioner that at least the subject matter recited by claim 1 is directed to activities that are financial in nature, namely displaying market information, including indicators of asks and bids in the market, setting trade order parameters, and sending a trade order to an electronic exchange. Patent Owner acknowledges that “the claims include financial terms [and] that the claimed GUI tool can be used to trade,” but contends that “improvements to software tools or GUIs, even if used to implement a trading strategy or other financial activity, are outside the scope of CBMR.” Prelim. Resp. 9–10. Patent Owner cites to various portions of the legislative history as support for its proposed interpretation. *Id.* at 10.

The “legislative history explains that the definition of covered business method patent was drafted to encompass patents ‘claiming activities that are financial in nature.’” 77 Fed. Reg. at 48,735 (quoting 157 Cong. Rec. S5432 (daily ed. Sept. 8, 2011) (statement of Sen. Schumer)).

The legislative history indicates that “financial product or service” should be interpreted broadly to “encompass patents ‘claiming activities that are financial in nature, incidental to a financial activity or complementary to a financial activity.’” *Id.*; see *Versata Dev. Grp., Inc. v. SAP America, Inc.*, 793 F.3d 1306, 1323–26 (Fed. Cir. 2015).

We are not persuaded by Patent Owner’s argument that the legislative history of the AIA establishes that novel user interfaces for commodities, as a category, were intended to be exempt from covered business method patent review. See Prelim. Resp. 10–13. As Petitioner argues, 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 Prelim. Resp. 10–13 (reproducing statements by Senator Durbin and Schumer)), the language of the AIA, as passed, does not include an exemption for all user interfaces for commodities from covered business method patent review. See Pet. 9–10. Each patent 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 on the facts of each case. 37 C.F.R. § 42.301(b).

For the reasons stated above, and based on the particular facts of this proceeding, we conclude that the ’411 patent includes at least one claim that meets the financial in nature requirement of § 18(d)(1) of the AIA.

2. Exclusion for Technological Inventions

To determine whether a patent is for a technological invention, we consider “whether the claimed subject matter as a whole recites a

technological feature that is novel and unobvious over the prior art; and 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 1326–27.

Petitioner contends that rather than reciting a technical feature that is novel or unobvious over the prior art, the claims of the ’411 patent generally recite trading software that is implemented on a conventional computer. Pet. 5–7. Patent Owner disagrees, arguing that GUI features in the claims provide novel and non-obvious technological features. Prelim. Resp. 16–18.

We are persuaded by Petitioner’s contentions that at least claim 1 of the ’411 patent does not recite a novel and non-obvious technological feature. The specification of the ’411 patent treats as well-known all potentially technological aspects of the claims. For example, the ’411 patent

discloses that its system can be implemented “on any existing or future terminal or device” (Ex. 1001, 4:8–11), each of which is known to include a display, and discloses that the input device can be a mouse (*id.* at 4:12–15), which is a known input device. The ’411 patent further discloses that “[t]he scope of the present invention is not limited by the type of terminal or device used.” *Id.* at 4:11–12. The ’411 patent also explains that the programming associated with the GUI is insignificant. *See, e.g.*, Ex. 1001, 4:63–5:4 (explaining that “present invention processes [price, order, and fill] information and maps it through simple algorithms and mapping tables to positions in a theoretical grid program” and “[t]he physical mapping of such information to a screen grid can be done by any technique known to those skilled in the art”).

Petitioner additionally asserts that the claims of the ’411 patent do not fall within § 18(d)(1)’s exclusion for “technological inventions” because the ’411 patent does not solve a technical problem using a technical solution. Pet. 7–9. Petitioner notes that “[a]ccording to the ’411 patent, the ‘problem’ with prior art trading GUIs was that the market price could change before a trader entered a desired order, causing the trader to ‘miss his price.’” *Id.* at 8 (citing Ex. 1001, 2:59–67). Petitioner contends that “the ’411 patent’s solution is not technical” because it simply “rearrange[d] how known and available market data is displayed on a GUI.” *Id.* at 8.

Patent Owner argues that the ’411 patent solves a technical problem using a technical solution. Prelim. Resp. 15–16, 18–20. According to Patent Owner, the ’411 patent “claims a specific combination of features of a GUI that purportedly was lacking in the prior art and that solved problems relating to speed, accuracy and usability—all technical problems.” *Id.* at 18.

We are persuaded that the '411 patent does not solve a technical problem with a technical solution. The '411 patent purports to solve the problem of a user missing an intended price because a price level changed as the user tried to click to send an order at an intended price level in a GUI tool. *See* Ex. 1001, 2:29–67. As written, claim 1 requires the use of only known technology. Given this, we determine that at least claim 1 does not solve a technical problem using a technical solution and at least claim 1 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 '411 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 1–28 as directed to patent-ineligible subject matter under 35 U.S.C. § 101. Pet. 14–25. Patent Owner disagrees. Prelim. Resp. 30–54.

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.” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 713–14 (Fed. Cir. 2014).

Initially, we note that Petitioner asserts that claims 26–28 are “broad enough to encompass a transitory, propagating signal that is encoded, which is not eligible for patenting.” Pet. at 17 (citing *In re Nuijten*, 550 F.3d 1346, 1357 (Fed. Cir. 2007)). Patent Owner argues that “Petitioners misapply *In re Nuijten*” and “also have not addressed the recitation of ‘recorded’ in the

claims, and fail to explain why this would not restrict the claim to non-transitory media.” Prelim. Resp. 53.

As indicated above, however, we determine that the broadest reasonable interpretation of “computer readable medium having program code recorded thereon” is any medium that participates in providing instruction to a processor for execution and having program code recorded thereon. Given this interpretation, claims 26–28 encompass transitory, propagating signals. Transitory, propagating signals are not covered by the four statutory classes of subject matter of 35 U.S.C. § 101. *In re Nuijten*, 500 F.3d at 1352.

There is no dispute that the remaining claims fit within one of the four statutorily provided categories of patent-eligibility. Even if claims 26–28 were to fit within one of the categories of patent-eligibility, we are persuaded that they do not recite patent-eligible subject matter for the reasons that follow.

1. Abstract Idea

Section 101 “contains an important implicit exception to subject matter eligibility: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. V. CLS Bank. Intern.*, 134 S. Ct. 2347, 2354 (2014) (citing *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013) (internal quotation marks and brackets omitted)). In *Alice*, the Supreme Court reiterated the framework set forth previously in *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012) “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. The first step in

the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.*

Petitioner argues that the challenged claims are directed to the abstract idea of “placing an order based on observed (plotted) market information, as well as updating market information.” Pet. 16. Patent Owner does not address any particular limitation or combination of limitations in the claims that removes them from being directed to an abstract idea. *See* Prelim. Resp. 33–42.

Independent claims 1 and 26 recite similar limitations, with claim 1 being directed to a “method” and claim 26 being directed to a “computer readable medium.” We are persuaded that the challenged claims are more likely than not drawn to a patent-ineligible abstract idea. The ’411 patent purports to solve the problem of reducing the amount of time to place a trade order. *See* Ex. 1001, 3:3–6. Claims 1 and 26 are directed to displaying market information in a particular manner (e.g., along a price axis), updating that information, and setting trade parameters and sending a trade order with a single action. The concept embodied by the majority of the limitations describes only the abstract idea of displaying and updating market information and placing a trade order.

2. Inventive Concept

Next we turn to “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.” *Mayo*, 132 S. Ct. at 1297–98. The additional elements must be more than “well-understood, routine, conventional activity.” *Id.* at 1298. On this record, Petitioner has established that the challenged claims of the ’411

patent do not add an inventive concept sufficient to ensure that the patent in practice amounts to significantly more than a patent on the abstract idea itself. *Alice*, 134 S. Ct. at 2355.

Patent Owner argues that “the claims require particular technological features of a GUI tool that solve problems with prior art GUI tools.” Prelim. Resp. 43. Patent Owner contends that the claims “recite specific structural and functional features of a GUI tool that purport to solve, *inter alia*, the problem of a user missing her intended price because a price level changed as the user tried to click to send an order at an intended price level in the GUI tool” (*id.* at 45) and that “[t]he claimed invention changes the computer’s function to achieve a result that cannot be achieved without the claimed software invention” (*id.* at 48). Patent Owner, however, does not appear to contend that the claimed invention somehow changes the way the computer itself functions.

As noted above, the specification of the ’411 patent treats as well-known all potentially technological aspects of the claims. For example, the ’411 patent discloses that its system can be implemented “on any existing or future terminal or device” (Ex. 1001, 4:8–11), each of which is known to include a display, and discloses that the input device can be a mouse (*id.* at 4:12–15), which is a known input device. The ’411 patent further discloses that “[t]he scope of the present invention is not limited by the type of terminal or device used.” *Id.* at 4:11–12. The ’411 patent also describes the programming associated with the GUI as insignificant. *See, e.g.*, Ex. 1001, 4:63–5:4 (explaining that “present invention processes [price, order, and fill] information and maps it through simple algorithms and mapping tables to positions in a theoretical grid program” and “[t]he physical mapping of such

information to a screen grid can be done by any technique known to those skilled in the art”).

Given the above, we determine that the combination of elements of the claims does not transform the nature of the claims into a patent-eligible application of the abstract idea. They do not add significantly more to the abstract idea.

Patent Owner’s arguments regarding *DDR Holdings, LLC v. Hotels.com, LP.*, 773 F.3d 1245 (Fed. Cir. 2014) are unpersuasive. *See* Prelim. Resp. 44–47. Unlike the claimed combination of elements in *DDR Holdings*, the claims of the ’411 patent appear to combine elements according to their known functions to achieve routine and conventional results. *See DDR Holdings*, 773 F.3d at 1257–58.

3. Dependent Claims

Petitioner contends that the additional elements recited by dependent claims 2–25, 27, and 28 do not add significantly more to the abstract idea so as to render the claims patent-eligible. Pet. 21–22. Patent Owner makes no arguments specifically directed to the additional elements of the dependent claims. On this record, we determine that Petitioner demonstrates that dependent claims 2–25, 27, and 28 are more likely than not patent ineligible under 35 U.S.C. § 101.

4. Conclusion

Having considered the information provided in the Petition and the Preliminary Response, we are persuaded that Petitioner has demonstrated that it is more likely than not that the challenged claims are unpatentable under 35 U.S.C. § 101.

D. Obviousness Challenges

1. Silverman Challenges

Petitioner challenges claims 1–10 and 12–28 as having been obvious over Silverman, Gutterman, Belden, and Togher and claim 11 as having been obvious over Silverman, Gutterman, Belden, Togher, and Paal (“the Silverman challenges”). Based on the record before us, we are not persuaded that Petitioner has demonstrated that it is more likely than not that it will prevail at trial on those challenges.

Claims 1 and 26 each require “displaying . . . a first indicator representing quantity associated with at least one trade order to buy the commodity at the current highest bid price” and “displaying . . . a second indicator representing quantity associated with at least one trade order to sell the commodity at the current lowest ask price.” The claims require displaying the first indicator at a first graphical location along a price axis in a bid display region and moving the first indicator relative to the price axis to a second graphical location in the bid display region “upon receipt of market information comprising a new highest bid price.” The claims require displaying the second indicator at a first graphical location along the price axis in an ask display region and moving the second indicator relative to the price axis to a second graphical location in the ask display region “upon receipt of market information comprising a new lowest ask price.”

Petitioner contends that “Gutterman discloses a GUI that displays bids/asks at graphical locations aligned with a price axis in bid/ask display regions” and “that the GUI can be updated automatically as new orders are placed.” Pet. 42 (citing Ex. 1004, 11:14–17, 12:1–56, FIG. 2b). Without citation, Petitioner alleges that “Gutterman discloses the movement of

bids/asks along a price axis.” *Id.* at 40–41 n.3. Petitioner concludes that “it would have been obvious to a [person skilled in the art] that in the combination GUI of Silverman and Gutterman” the first and second indicators would be moved as recited in the claims. Pet. 42–43 (citing Ex. 1019 ¶¶ 107–108). Patent Owner disputes Petitioner’s contentions regarding this limitation. Prelim. Resp. 75–76.

As noted above, the claims require displaying first and second indicators at graphical locations along a price axis and moving those indicators to different graphical areas along the price axis. Petitioner fails to identify any teaching in Gutterman of this feature, and does not even appear to allege that any such teaching exists in Gutterman. Although Petitioner alleges that “Gutterman discloses the movement of bids/asks along a price axis” in a footnote, there is no explanation as to why Gutterman discloses this feature. Furthermore, there is not even a citation to anything in Gutterman in support of this allegation. We decline to speculate as to what in Gutterman might teach this feature.

For these reasons, Petitioner has failed to demonstrate that it is more likely than not that the challenged claims are unpatentable under 35 U.S.C. § 103 based on the Silverman challenges.

2. TSE Challenges

Petitioner challenges claims 1–28 as having been obvious over TSE, Belden, and Togher (“the TSE challenge”). Based on the record before us, we are persuaded that Petitioner has demonstrated that it is more likely than not that it will prevail at trial on that challenge.

a. TSE Printed Publication Status

Petitioner argues that TSE is prior art under 35 U.S.C. § 102(a). Pet. 11. In support of its showing that TSE qualifies as prior art, Petitioner relies on a November 21, 2005 deposition testimony of Atsushi Kawashima taken during litigation between Patent Owner and a third party eSpeed, Inc. Ex. 1010. Patent Owner argues that Petitioner presents insufficient evidence to show that TSE was publically accessible, that the testimony of Atsushi Kawashima is not reliable, and that a jury already has concluded that TSE is not prior art. Prelim. Resp. 54–59. For the reasons that follow, we determine that, at this juncture of the proceeding, Petitioner has established that TSE is prior art.

Patent Owner argues that we should give deference to a previous jury determination that “TSE is not prior art as of March 2, 2000.” Prelim. Resp. 59 (citing Ex. 2034, 11; Ex. 2036). That determination, to the extent that Patent Owner has shown sufficiently its relevance to this proceeding, is not binding on us. Petitioner was not involved in that case. Moreover, Petitioner need only show by a preponderance of the evidence that TSE is prior art, not by the higher clear and convincing standard used in district court proceedings. 35 U.S.C. § 326(e).

Nor are we persuaded by Patent Owner’s argument that Mr. Kawashima’s testimony is not reliable. In particular, Patent Owner argues that Mr. Kawashima admitted that the company he worked for, the Tokyo Stock Exchange (TSE), “provided art, including TSE documents, to the Japanese patent office” making Mr. Kawashima an interested witness. Prelim. Resp. 57–58. Patent Owner does not explain sufficiently what it means by this or how Kawashima’s testimony supports the assertion. For

example, we cannot discern what patent or proceeding is being referred to per Exhibit 1010, and Patent Owner does not direct us to other evidence to support the assertions made. Such vague arguments that the company Mr. Kawashima worked for at some time submitted some prior art during some Japanese proceeding are insufficient to show that Mr. Kawashima is not a disinterested witness and that his testimony is unreliable for purposes of this proceeding. At this juncture of the proceeding, we will not disregard Mr. Kawashima's testimony.

We next turn to the issue of whether Petitioner has established that TSE is prior art under 35 U.S.C. § 102(a). Whether a document qualifies as a printed publication under 35 U.S.C. § 102(a) is a question of law based on underlying findings of fact. *See In re Hall*, 781 F.2d 897, 899 (Fed. Cir. 1986). Documents qualify as prior art so long as the interested public has a means of accessing them. *See, e.g., Hall*, 781 F.2d at 899. "Accessibility goes to the issue of whether interested members of the relevant public could obtain the information if they wanted to." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1569 (Fed. Cir. 1988). Moreover, "[i]f accessibility is proved, there is no requirement to show that particular members of the public actually received the information." *Id.*

TSE is entitled "Futures/Option Purchasing System Trading Terminal Operation Guide" of the "Tokyo Stock Exchange Operation System Division." Ex. 1007, 1. In the middle of page 5 is the annotation "August, 1998" above the words "Tokyo Stock Exchange Operation System Division." *Id.* at 5. Petitioner argues that TSE is prior art under 35 U.S.C. § 102(a) because it was published in August of 1998 by giving two copies to each of the about 200 participants in the Tokyo Stock Exchange, who were

free to do whatever they wanted with their copies of the publication. Pet. 11 (citing Ex. 1010, 12–33).

In support of its arguments regarding TSE as prior art, Petitioner directs us to portions of Mr. Kawashima’s testimony. At the time of his testimony, Mr. Kawashima testified that TSE “is the current TSE futures options trading system terminal document, manual” that was prepared August of 1998 by the Tokyo Stock Exchange. Ex. 1010, 10. He further testified that the purpose of the manual was that “in 1998 we replaced the futures options trading system and so this new manual was prepared because there were changes to the way the trading terminals were operating.” *Id.* at 12. Kawashima further testified that the manual was distributed to participants who were “securities companies for banks who are able to carry out futures options trading at the TSE” and that the “manual was given to explain those changes” made with respect to the operation of the TSE trading system and terminals. *Id.* at 12, 14.

Contrary to Patent Owner’s assertions, Petitioner does not assert that “TSE was distributed to traders.” Prelim. Resp. 56. Rather, Petitioner asserts that TSE was distributed to *participants* in the Tokyo Stock Exchange. Pet. 11. Based on the evidence before us, the participants were securities companies for banks. The purpose of the manual was to alert the securities companies of changes to the way the trading terminals of the Tokyo Stock Exchange operated. Ex. 1010, 12, 14. Indeed, TSE is a manual that includes for example, in Chapter 2, instructions for terminal system configuration to enable a participant, such as a security company to connect to the Tokyo Stock Exchange. Ex. 1007, 10–25. Chapter 15, entitled “Response To A Problem” provides detailed explanations should a

problem arise with terminal equipment, communication circuit difficulties, central system recovery difficulties, etc., along with in-house procured terminal problem handling instructions. *Id.* 5. Thus, TSE is a manual that covers how to electronically connect to the Tokyo Stock Exchange.

The evidence before us supports us finding that TSE was made accessible to securities companies who would have employed technical support personnel, such as computer scientists and engineers, who would have needed a copy of the TSE manual to configure their own system to electronically communicate, and to continue to trade securities, with the Tokyo Stock Exchange. Thus, the securities companies would have included computer scientists and engineers as well as traders. We find that such persons who worked at the securities companies would have been “interested members of the relevant public.”

Patent Owner’s narrow focus on whether a GUI designer actually received TSE is misplaced. Prelim. Resp. 56. Our reviewing court has explained that the inquiry is whether interested members of the relevant public could obtain the information if they wanted to; not whether such interested members actually received the information. *Constant*, 848 F.2d at 1569. As explained above, we do not find that interested members of the relevant public is limited to GUI designers, and Patent Owner has not shown sufficiently why we should find otherwise.

In any event, even assuming that interested members of the relevant public is limited to GUI designers, we find Mr. Kawashima’s testimony that the securities companies were free to do whatever they wanted with their copies of the publication to be probative. Ex. 1010, 15. Based on the record before us, we find that such GUI designers could have located the TSE

manual through reasonable diligence. No restrictions were placed on the 200 company recipients of the manual, such that they could freely share the document upon inquiry. That is all the law requires. It does not require a showing that interested members of the relevant public actually received the document. Thus, we are not persuaded by Patent Owner's arguments that Mr. Kawashima's testimony is suspect and not reliable because there is no corroborating evidence that TSE was obtained by, or distributed to, participants. *See, e.g., In re Hall*, 781 F.2d 897 (Fed. Cir. 1986).

Based on the record before us, at this preliminary juncture of the proceeding, we find the evidence sufficient to establish that TSE was publically accessible prior to the effective filing date of the '411 patent.

b. Challenges

With respect to claims 1 and 26, Petitioner cites TSE as teaching the majority of the claim limitations, and cites the combination of TSE and Belden as teaching the “displaying . . . an order entry region” limitation and the combination of TSE, Belden, and Togher as teaching the “selecting” limitation. Pet. 64–73. Patent Owner does not yet dispute the majority of Petitioner's contentions regarding the alleged teachings of the references involved in the TSE challenges or the reasoning for their combination. Rather, at this stage of the proceeding, Patent Owner's response to the TSE challenges only alleges that: (1) “TSE does not teach that a user can select part of a trade region in the Board Screen to send an order” (Prelim. Resp. 77) and Belden does not cure this alleged deficiency (*id.* at 77–79) and (2) due to an ambiguity in the translation of TSE, it is unclear whether the automatic updating of Board information actually occurs on the screen (*id.* at

59–62). This Decision addresses specifically only the portions of the TSE challenges that are addressed by Patent Owner.

i. sending trades by selecting graphical areas along price axis

Claims 1 and 26 each recite “displaying an order entry region comprising . . . graphical areas [corresponding to price levels along a price axis] for receiving single action commands to set trade order prices and send trades” and “selecting a particular graphical area . . . through a single action to both set a price for the trade order and send the trade order.” Patent Owner’s contentions are directed to the alleged failure of TSE to teach sending a trade order by selecting, via a single action command, a graphical area along a price axis. *See id.* at 76–77. These contentions are not persuasive because, as Patent Owner notes (*id.* at 77), Petitioner does not rely on TSE for this teaching (*see* Pet. 69). Rather, Petitioner cites Belden for this teaching and proposes modifying TSE based on this teaching from Belden. *Id.* at 71.

Petitioner contends that Belden teaches single action commands that set trade prices and send trade orders. Pet. 70–71. Patent Owner responds that Belden fails to teach sending a trade order by selecting a graphical area because Belden completes a “trade,” not a “trade order.” Prelim. Resp. 78–79. Patent Owner’s contentions focus on the difference between a “trade” and a “trade order,” arguing that “[a] ‘trade order’ means an ‘electronic message’ representing an order” and “[a] ‘trade’ occurs when an order is matched (i.e., filled).” *Id.*

Regardless of whether Belden sends a command completing a “trade” or “trade order,” there is no dispute at this stage of the proceeding that Belden does this with a single action command received by a graphical area

(clicking on an icon). *See, e.g.*, Ex. 1009, 12, 33. Petitioner’s challenge proposes modifying TSE to include Belden’s “single action” sending. Pet. 71. Patent Owner does not dispute TSE teaches sending trade orders. *See* Prelim. Resp. 77 (explaining that in TSE, when a graphical area is selected, “an Order Input Window is opened and . . . used to send an order”). We are persuaded that one skilled in the art would have modified TSE based on Belden’s “single action” teaching (even if that teaching is directed to completing a “trade” rather than a “trade order”) in order to send TSE’s trade order without requiring the separate Order Input Window. At this stage in the proceeding, we are persuaded that one skilled in the art would have modified TSE in this manner “to achieve the predictable and desirable results of reducing the time needed to place an order and reduce operator error” as Petitioner contends. Pet. 71 (citing Ex. 1019 ¶ 176).

ii. translation issues

Patent Owner’s allegations regarding the alleged translation ambiguity are also unpersuasive. Patent Owner cites to an alleged discrepancy on page 116 of TSE, which Patent Owner notes is not specifically cited by Petitioner. Prelim. Resp. 59. Patent Owner notes that “Petitioners rely solely on the ‘Scrolling Screen mode’ in TSE to assert that it teaches the movement of indicators relative to the price axis,” but “[t]he omitted [the translator’s] note on page 7–26,” which corresponds to page 116 of Exhibit 1007, “goes to the heart of Petitioners’ allegations regarding the ‘Scrolling Screen mode,’ stating that ‘[i]t is unclear from the source Japanese text whether the automatic updating of the board information takes place only in memory or on the screen as well.’” *Id.* at 59–60.

As Patent Owner notes, however, this is not the portion of TSE cited by Petitioner to support its proposition. *See* Pet. 68 (citing Ex. 1017, 91). Page 91 of TSE states that “[t]he board information on each Board Screen is automatically updated even if it has been scrolled vertically.” Patent Owner does not allege any ambiguity or error in the translation of page 91 of TSE. Accordingly, even if the translation on the pages of TSE identified by Patent Owner included the alleged ambiguity, we are not persuaded that such an ambiguity “is fatal to the TSE grounds” as Patent Owner contends.

Having considered the information provided in the Petition and the Preliminary Response, we are persuaded that Petitioner has demonstrated that it is more likely than not that the challenged claims are unpatentable under 35 U.S.C. § 103 based on the TSE challenges.

E. Alleged Misuse of Covered Business Method Process and Previous Consideration of Proposed Combinations

Patent Owner alleges that the filing of the Petition is a misuse of the covered business method process and argues that we should exercise our discretion to deny institution. Prelim. Resp. 20–27. According to Patent Owner, we should not institute covered business method patent review because: 1) we “should not condone the defendants’ misuse of [covered business method review] for litigation gamesmanship; and 2) because the grounds have been presented to the Board before, in proceedings Petitioners could have joined,” such as CBM2014-00133. *Id.* at 22, 73. Patent Owner additionally argues that because the asserted references were previously considered in the original prosecution of the ’411 and in reexamination proceedings of the parent patent (the ’132 patent), we should use our discretion to deny the Petition on that basis. *Id.* at 62–75.

We are not persuaded by Patent Owner's argument that the Petition should be denied for an alleged abuse of process. Section 42.12 of our Rules provide that the Board *may* impose sanctions against a party for misconduct, including for abuse of process, and that sanctions may include dismissal of the petition. 37 C.F.R. § 41.12(a)(6),(b)(8). We are not persuaded that the imposition of sanctions is appropriate here. Patent Owner does not proffer sufficient evidence to establish that Petitioner is abusing these proceedings as a vehicle for alleged litigation gamesmanship.

We also are not persuaded by Patent Owner's arguments that the Petition should be denied because similar grounds have been presented in CBM2014-00133 or because the asserted references were considered previously in the original prosecution of the '411 patent and the subsequent reexamination proceedings of the '132 patent. Section 325(d) of the statute states: "In determining whether to institute or order a proceeding . . . the Director *may* take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office" (emphasis added). Section 325(d) provides that, if another proceeding involving the same patent is before the Office, the Board may terminate any such matter and that the Board may take into account whether the same or substantially the same prior art or arguments were previously presented to the Office.

We are not required by the statute to reject a petition based upon the fact that certain arguments were previously presented to the Office. Petitioner was not a party in CBM2014-00133, and Patent Owner identifies no reason why Petitioner should have been required to join that proceeding. With respect to Patent Owner's contentions regarding original prosecution of

the '411 patent and the reexamination proceedings of the '132 patent, Petitioner did not have the opportunity to participate in those proceedings. Accordingly, based on the specific facts of this proceeding, we decline to exercise our discretion to deny the Petition.

F. Real Party-in-Interest

Patent Owner contends that the Petition fails to name all of the real-parties-in-interest as required by 35 U.S.C. § 322(a)(2). Prelim. Resp. 27–30. According to Patent Owner, CQG, Inc. and CQGT, LLC (collectively, “CQG”) are real-parties-in-interest that are not identified in the Petition and, thus, institution should be denied. *Id.*

According to Patent Owner, the Petition “is part of a larger scheme of coordination” amongst the defendants in the related litigation. *Id.* at 28 (citing Ex. 2030). Both Petitioner and CQG are defendants in the related litigation and co-petitioners of related petitions for covered business method patent review. Patent Owner points to two statements made in a paper filed in the related litigation as evidence of the alleged coordination. *Id.* at 28–29 (citing Ex. 2021, 7; Ex. 2030, 2). Those statements are: “Defendants respectfully request a short period of time to coordinate on these PTAB actions” (Ex. 2030, 2); and “For CQG’s part, it is preparing to file CBMR petitions on the ’411, ’374, ’768, and ’724 patents in the next several weeks” (Ex. 2021, 7). Prelim. Resp. 28–29.

Patent Owner also contends that Petitioner “uses counsel shared with CQG in an earlier proceeding” and, as a result, “CQG at least partially funded this proceeding” because it “recycles the work from that [earlier] proceeding where CQG was admittedly an RPI.” Prelim. Resp. 29 (citing CBM2015-00179).

Whether a non-identified party is a real party-in-interest to a proceeding is a highly fact-dependent question. Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,759 (citing *Taylor v. Sturgell*, 553 U.S. 880 (2008)). “A common consideration is whether the non-party exercised or could have exercised control over a party’s participation in a proceeding.” *Id.* “The concept of control generally means that ‘it should be enough that the nonparty has the actual measure of control or opportunity to control that might reasonably be expected between two formal coparties.’” *Id.* (quoting Charles Wright, et al., 18A Federal Practice & Procedure §§ 4449, 4451 (2d ed. 2011)).

We are not persuaded that Patent Owner’s evidence reasonably establishes that CQG is a real-party-in-interest in this proceeding. Petitioner’s statements made in the papers filed in the related litigation, when read in context, do not establish sufficiently that CQG had control over the filing of the Petition in this proceeding. *See* Ex. 2021, 7; Ex. 2030, 2. The proffered statements were made with regards to a request, by the co-defendants, to continue a stay in the related district court litigation (Ex. 2021, 7; Ex. 2030, 2) and do not establish sufficiently Patent Owner’s alleged “larger scheme of coordination.” Status as a co-defendant of a joint defense group is insufficient to establish that CQG had control over the filing of the Petition in this proceeding. Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,760.

Even if Petitioner recycled portions of the petition and evidence from CBM2015-00179 as Patent Owner alleges, that does not establish sufficiently that CQG had control over the filing of the Petition in this proceeding. Initially, we note that Petitioner is a party in CBM2015-00179.

Further, the allegedly recycled material from CBM2015-00179 was publicly accessible (with the petition in that proceeding filed on September 2, 2015) prior to the filing of the Petition in this proceeding. On this record, Patent Owner has not directed us to sufficient evidence to question whether CQG had any control over Petitioner's decision to use material used in CBM2015-00179. *See JP Morgan Chase & Co. v. Maxim Integrated Product, Inc.*, CBM2014-00179, slip op. at 6–13 (PTAB Feb. 20, 2015) (Paper 11) (determining that a substantial resubmission of a petition filed in an original proceeding, alone, was not a sufficient basis for determining that a co-petitioner in the original proceedings was a real-party-in-interest in the later proceeding).

On this record, we are not persuaded that CQG is a real-party-in-interest in this proceeding.

CONCLUSION

For the foregoing reasons, we determine that the information presented in the Petition establishes that it is more likely than not that Petitioner would prevail in establishing the unpatentability of claims 1–28 of the '411 patent.

The Board has not made a final determination on the patentability of any challenged claims.

ORDER

For the reasons given, it is:

ORDERED that a covered business method patent review is instituted
as to:

- A. Claims 1–28 as being directed to patent ineligible subject matter under 35 U.S.C. § 101; and
- B. Claims 1–28 as being unpatentable under 35 U.S.C. § 103 over TSE, Belden, and Togher.

FURTHER ORDERED that pursuant to 35 U.S.C. § 324(d) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial commencing on the entry date of this Order.

CBM2015-00181
Patent 7,676,411 B2

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