

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

TRADING TECHNOLOGIES INTERNATIONAL, INC., Plaintiff, v. CQG, INC., and CQGT, LLC, Defendants. Case No. 05-cv-4811 Judge Sharon Johnson Coleman

MEMORANDUM OPINION AND ORDER

CQG, Inc. and CQGT, LLC (collectively "CQG"), moves for judgment as a matter of law [897] arguing that the patents-in-suit, U.S. patent 6,772,132 ("the '132 patent") and U.S. patent 6,766,304 ("the '304 patent"), are patent-ineligible under 35 U.S.C. § 101. For the reasons stated below, this Court denies the motion.

Background

The following facts are not materially in dispute. TT is the assignee of both the '132 patent and the '304 patent. The '132 patent issued in August 2004 and the '304 patent issued in July 2004. Both patents claim priority to a provisional application filed on March 2, 2000. Both patents also share the same specification, and are directed to "[c]lick based trading with intuitive grid display of market depth." '132 patent, 1:2-3. According to the shared detailed description, the invention described "provides a display and trading method to ensure fast and accurate execution of trades by displaying market depth on a vertical or horizontal plane, which fluctuates logically up or down, left or right across the plane as the price fluctuates." Id. at 3:54-58. Because the analysis of claims under 35 U.S.C. § 101 is the same regardless of claim type, i.e. method claim, system claim, computer

readable medium claim, etc., this Court may analyze one representative claim from each of the asserted patents. *Alice Corp. Pty. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2359-60 (2014).

Representative claim 1 of the '132 patent recites:

1. A method of placing a trade order for a commodity on an electronic exchange having an inside market with a highest bid price and a lowest ask price, using a graphical user interface and a user input device, said method comprising:
  - setting a preset parameter for the trade order
  - displaying market depth of the commodity, through a dynamic display of a plurality of bids and a plurality of asks in the market for the commodity, including at least a portion of the bid and ask quantities of the commodity, the dynamic display being aligned with a static display of prices corresponding thereto, wherein the static display of prices does not move in response to a change in the inside market;
  - displaying an order entry region aligned with the static display prices comprising a plurality of areas for receiving commands from the user input devices to send trade orders, each area corresponding to a price of the static display of prices; and
  - selecting a particular area in the order entry region through single action of the user input device with a pointer of the user input device positioned over the particular area to set a plurality of additional parameters for the trade order and send the trade order to the electronic exchange.

Representative claim 1 of the '304 patent recites:

1. A method for displaying market information relating to and facilitating trading of a commodity being traded in an electronic exchange having an inside market with a highest bid price and a lowest ask price on a graphical user interface, the method comprising:
  - dynamically displaying a first indicator in one of a plurality of locations in a bid display region, each location in the bid display region corresponding to a price level along a common static price axis, the first indicator representing quantity associated with at least one order to buy the commodity at the highest bid price currently available in the market;
  - dynamically displaying a second indicator in one of a plurality of locations in an ask display region, each location in the ask display region corresponding to a price level along the common static price axis, the second indicator representing quantity associated with at least one order to sell the commodity at the lowest ask price currently available in the market;
  - displaying the bid and ask display regions in relation to fixed price levels positioned along the common static price axis such that when the inside market changes, the price levels along the common static price axis do not move and at least one of the first and second indicators moves in the bid or ask display regions relative to the common static price axis;
  - displaying an order entry region comprising a plurality of locations for receiving commands to send trade orders, each location corresponding to a price level along the common static price axis; and

in response to a selection of a particular location of the order entry region by a single action of a user input device, setting a plurality of parameters for a trade order relating to the commodity and sending the trade order to the electronic exchange.

On December 4, 2014, the Patent Trials and Appeals Board (“PTAB”) instituted a Covered Business Method Review (“CBMR”) proceeding of the ‘132 patent, finding that it was more likely than not that all claims of the ‘132 patent recited patent-ineligible subject matter. However, the same day, the PTAB declined to institute a CBMR of the ‘304 patent. As a result, CQG filed a motion with this Court requesting a stay in light of the CBMR proceeding for the ‘132 patent.<sup>1</sup> This Court denied the motion to stay. CQG appealed that decision to the Federal Circuit Court of Appeals which, on February 5, 2015, affirmed this Court’s order. This Court allowed briefing on the eligibility issue under section 101 and heard oral arguments on February 23, 2015.

### **Legal Standard**

At the outset, this Court acknowledges that the section 101 jurisprudence is a recently evolving and unsettled area of law as it applies particularly to software patents. There is some dispute over the level of proof required in a section 101 patent-eligibility inquiry. CQG asserts that “[a]s a matter of law, patent-eligibility is not subject to the ‘clear and convincing’ burden of proof.” (Dkt. 898 at 3) (quoting *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2253 (2011) (Breyer, Scalia, Alito, JJ, concurring)). TT submits that rather than a preponderance of the evidence burden of proof the appropriate standard should be “clear and convincing.” (Dkt. 962 at 11) (quoting *Card Verification Solutions, LLC v. Citigroup Inc.*, 2014 WL 4922524, at \*5 (N.D. Ill. Sept. 29, 2014)).

This Court recognizes the persuasiveness of Justice Breyer’s reasoning that because the section 101 eligibility inquiry is purely a question of law and there is no statutory presumption of eligibility, it should not be subject to the clear and convincing burden of proof. However, 35 U.S.C.

---

<sup>1</sup> The patents were before the PTAB on a petition filed by TD Ameritrade, a party in another lawsuit proceeding in this court. CQG filed its own petition with the USPTO for a covered business method patent review for each of the patents-in-suit on January 9, 2015.

§ 282 provides that patents are presumed valid and it is well established that a party seeking to overcome that presumption must do so by clear and convincing evidence. *See Nystrom v. Trex Co.*, 424 F.3d 1136, 1149 (Fed. Cir. 2005). This Court is “duty-bound to apply the law as enacted by Congress and signed by the President, and in light of the Federal Circuit’s interpretation thereof. Defendants have not presented any authority indicating that the presumption of validity no longer applies to challenges to a patent’s validity under section 101.”<sup>2</sup> *CertusView Techs., LLC v. S&N Locating Servs., LLC*, 2015 U.S. Dist. LEXIS 7126, \*42 n.6, Slip Copy, 2015 WL 269427 (E.D. Va. Jan. 21, 2015). Accordingly, this Court concludes that, until the Federal Circuit or the United Supreme Court mandates otherwise, CQG must show by clear and convincing evidence that the patents-in-suit claim patent-ineligible subject matter.

## **Discussion**

Section 101 provides that “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C.A. § 101. Supreme Court precedents provide three specific exceptions to section 101’s principles of patentability: “laws of nature, physical phenomena, and abstract ideas.” *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980). *Alice* articulates a two-step process to determine whether claims of a patent are within the realm of patent-eligible subject matter. *Alice Corp.*, 134 S. Ct. at 2354 (relying on *Mayo Collaborative Servs. v. Prometheus Labs.*, 132 S. Ct. 1289, 1303, 1294 (2012)). This Court must first determine whether the claims of the asserted patents are directed to a patent-ineligible concept: laws of nature, physical phenomena, and abstract ideas. *Alice Corp.*, 134 S. Ct. at 2355; *see also Mayo*, 132 S.Ct. at 1296-1297. This Court must then “consider the elements of each

---

<sup>2</sup> CQG points to another concurrence to show that no presumption of eligibility should attach to a § 101 analysis. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 720 (Fed. Cir. Nov. 14, 2014) (Mayer, J, concurring)).

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.” *Alice*, 134 S.Ct. at 2355 (quoting *Mayo*, 132 S.Ct. at 1298, 1297). This second step requires a search for an “‘inventive concept,’ or some element or combination of elements sufficient to ensure that the claim in practice amounts to ‘significantly more’ than a patent on an ineligible concept.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255 (Fed. Cir. 2014) (quoting *Alice*, 134 S. Ct. at 2355). Finally, as *Alice* makes clear, the claims “do more than simply instruct the practitioner to implement the abstract idea” on a generic computer either separately or as an ordered combination. *Alice*, 134 S. Ct. at 2359.

### 1. *Abstract Idea*

This Court must first determine whether the claims at issue are directed to an abstract idea. *DDR Holdings*, 773 F.3d at 1256-1257. CQG argues that the claims of both the ‘132 patent and the ‘304 patent “recite the abstract idea of placing an order for a commodity on an electronic exchange, based on observed market information, as well as updating the market information.” Dkt. 898 at 1. As a result, CQG maintains, “the abstract idea is nothing more than ‘a fundamental economic practice long prevalent in our system of commerce.’” *Id.* (quoting *Alice*, 134 S.Ct. at 2356). TT asserts that the claims of the patents in suit are not directed to an abstract idea, but to an improvement in computer technology. However, TT maintains that assuming *arguendo* that the claims do recite an abstract idea, the claims “do not seek to tie up the alleged abstract idea such that others cannot practice it.” Dkt. 962 at 13.

Here, neither the claims in the ‘132 patent nor the claims in the ‘304 patent are directed to a mathematical algorithm. *See Gottschalk v. Benson*, 409 U.S. 63, 64 (1972) (holding that mathematical algorithms, even those implemented on a computer, are abstract ideas). The claims similarly do not “recite a fundamental economic or longstanding commercial practice,” *DDR Holdings*, 773 F.3d at

1257, as electronic trading has only been viable for a couple of decades, and its analog predecessor, open outcry trading systems, operate in a significantly different fashion. The claims of the patents also do not address a challenge in business. Rather, the claims at issue in both patents profess to solve problems of prior graphical user interface devices (GUIs), in the context of computerized trading, relating to speed, accuracy and usability.

CQG argues that: “[t]he Asserted Claims recite the abstract idea of placing an order for a commodity on an electronic exchange, based on observed market information, as well as updating the market information.” Dkt. 898 at 1. CQG further contends that the elements recited in the claims merely perform basic functions relating to electronic commodity trading and updating market information using unidentified and generic computer components. CQG further asserts that, “the functions recited in the Asserted Claims – setting, displaying, and selecting – are all ‘purely conventional’ and cannot save the claims.” *Id.* at 2 (quoting *Alice*, 134 S. Ct. at 2359).

If the claims simply provided for “setting, displaying, and selecting” data or information, CQG would be correct in its assessment that the claims are directed to an abstract idea. However, CQG ignores much of the details of the representative claims. Neither the claims of the ‘304 patent nor the claims of the ‘132 patent are directed to solely “setting, displaying, and selecting” data or information that is visible on the GUI device. Rather, the claims are directed to solving a problem that existed with prior art GUIs, namely, that the best bid and best ask prices would change based on updates received from the market. There was a risk with the prior art GUIs that a trader would miss her intended price as a result of prices changing from under her pointer at the time she clicked on the price cell on the GUI. The patents-in-suit provide a system and method whereby traders may place orders at a particular, identified price level, not necessarily the highest bid or the lowest ask price because the invention keeps the prices static in position, and allows the quantities at each price to change.

This issue did not arise in the open outcry systems, i.e. the pre-electronic trading analog of the ‘304 and ‘132 patents’ claims. In live trading “pits,” traders would use verbal communication and hand signals to transfer information about buy and sell orders. In an open outcry system, bids and offers would be made in the open market giving all of the participants a chance to compete for an order with the best price. There is no question that electronic trading is much different than trading in open outcry pits. The speed, quantity and variety of trades that can be made by a single trader over an electronic system are no doubt markedly different than those trades a single trader can make in the open outcry system. This Court concludes, in part, from the apparent differences between the analog versions of trading and electronic trading that the claims of the patents in suit are not directed to the abstract idea of “placing an order for a commodity on an electronic exchange.” Dkt. 898 at 1.

The asserted claims similarly do not preempt every way of “placing an order for a commodity on an electronic exchange,” as systems for doing so existed before this invention, and systems exist now that allow traders to buy and sell commodities on electronic exchanges without infringing the claims of the patents in suit. Therefore, CQG has not met its burden of proving by clear and convincing evidence that the patents in suit are directed to an “abstract idea.”

## *2. Inventive Concept*

Even if this Court were to find that the claims of the patents in suit are directed to an abstract idea, the second part of the *Alice* framework, considering the claim elements “both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application,” leads this Court to one conclusion: the claims recite an inventive concept. *Alice*, 134 S.Ct. at 2355. CQG spent much of its argument, on paper and in court, expounding on the “conventional” nature of trading GUIs. Yet, this argument seems more appropriate for a pre-AIA §§ 102 or 103 validity challenge (for failing to

be novel or nonobvious in light of the prior art). The “inventive concept” step of the *Alice* analysis requires something different than pre-AIA §§ 102 and 103. This step requires courts to locate an element or a combination of elements in the claims “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 134 S.Ct. at 2355 (quoting *Mayo*, 132, S.Ct. at 1294).

To ensure patents are not granted when the subject matter to which the claims are directed completely preempts an idea, “[a] claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* at 2357 (quoting *Mayo*, 132 S.Ct. at 1297). It is important to note, “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention,” *Id.* at 2358, thus, the recitation of a GUI in the claims of the patents in suit does not automatically impart patent eligibility.

In searching for the “inventive concept,” by analyzing the claim elements both individually and as an ordered combination, this Court need not delve further than identify the clause in the claims which has raised a flurry of commotion throughout these proceedings: the static price index. The ‘132 patent recites a “dynamic display being aligned **with a static display of prices** corresponding thereto,” and the ‘304 patent recites “each location in the bid display region corresponding to a price level along **a common static price axis.**” This element of the representative claims is what adds the “inventive concept” to the patents-in-suit. While not declaring that the “static price axis” is the defining characteristic of the patents which was not known in the prior art before the date of invention (which is only proper under a §§ 102 or 103 analysis), it seems to be the “inventive concept” that allowed some traders the ability to more efficiently and accurately place trades on electronic trading systems.



As such, even if this Court found that the patents were directed to an abstract idea, under the second part of the *Alice* test, this Court finds that at least the “static price axis” element of the patents in suit was an “inventive concept,” which eliminated some problems of prior GUIs relating to speed, accuracy and usability, therefore the patents-in-suit claim patent eligible subject matter under the *Alice* framework. *DDR Holdings*, 773 F.3d at 1259. When the elements of the claims of both the ‘304 patent and the ‘132 patent are “taken together as an ordered combination, the claims recite an invention that is not merely the routine or conventional use” of computers or the Internet. *DDR Holdings*, 773 F.3d at 1259. This Court disagrees with CQG’s assessment of *DDR Holdings* as inapposite. Instead, this Court finds that because the claims of both the ‘132 patent and the ‘304 patent are “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of” computers, like the asserted claims in *DDR Holdings*, the claims here satisfy the requirements of 35 U.S.C. § 101. *See* 773 F.3d at 1257.

## CONCLUSION

Because the claims are directed to a technological improvement of GUIs, the invention embodied within the claims of both the ‘132 patent and the ‘304 patent is not directed to an abstract idea, and even if they were, an element of the claims recite an inventive concept, the claims recite patent eligible subject matter under 35 U.S.C. § 101.

IT IS SO ORDERED.

Date: February 24, 2015

Entered:



SHARON JOHNSON COLEMAN  
United States District Judge