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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* BRADEN S. JANOWSKI

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Appeal 2016-003797<sup>1</sup>  
Application 12/103,615<sup>2</sup>  
Technology Center 3600

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Before ANTON W. FETTING, BIBHU R. MOHANTY, and  
TARA L. HUTCHINGS, *Administrative Patent Judges*.

HUTCHINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1–5 and 12–18. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> Our decision references Appellant’s Appeal Brief (“App. Br.,” filed Aug. 19, 2015) and Reply Brief (“Reply Br.,” Mar. 3, 2016), and the Examiner’s Answer (“Ans.,” mailed Jan. 6, 2016) and Final Office Action (“Final Act.,” mailed Mar. 23, 2015).

<sup>2</sup> Appellant identifies Chicago Mercantile Exchange Inc. as the real party in interest. App. Br. 2.

### CLAIMED INVENTION

Appellant's claimed invention "relates in general to making markets for electronically traded financial instruments." Spec. ¶ 1.

Claim 1, reproduced below, is the sole independent claim on appeal and is representative of the claimed subject matter:

1. A method implemented within a computer system separate from an electronic exchange for adjusting one or more parameters of an implemented strategy for making markets in a financial instrument traded on the electronic exchange, the method comprising:

implementing with the computer system a market making strategy for a financial instrument traded on an electronic exchange, said market making strategy including:

determining with the computer system a target market value for the financial instrument to which the market making strategy is applied;

establishing with the computer system one or more parameters of the strategy based at least in part on the determined target market value of the instrument, said one or more parameters selected from the group consisting of: (a) book depth for resting trade orders submitted to the electronic exchange in accordance with the market making strategy (Book Depth); (b) Bid/Ask spread (Aggression); and (c) Bid/Ask spread shift with no change to Aggression (Bias); and

generating and submitting, with the computer system, at least one trade order for the financial instrument to the electronic exchange in accordance with the target market value and the one or more parameters established for the market making strategy; and

providing a parameter adjustment graphical user interface with the user controls configured to adjust said one or more parameters of the implemented strategy; and

adjusting through user input of the parameter adjustment graphical user interface at least one of said one or more parameters of the implemented strategy.

## REJECTIONS

Claims 1–5 and 12–18 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1–5 and 12–18 are rejected under 35 U.S.C. § 103(a) as unpatentable over Kaminsky (US 2008/0208734 A1, pub. Aug. 28, 2008), Brady (US 2002/0128955 A1, pub. Sept. 12, 2002), and Brinkmann (US 2007/0113183 A1, pub. May 17, 2007).

## ANALYSIS

### *Non-Statutory Subject Matter*

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (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 Corp.*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered

combination” to determine whether there are additional elements that “transform the nature of the claim’ into a patent-eligible application.” *Alice Corp.*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 79, 78).

The Court acknowledged in *Mayo*, that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.

*See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

In rejecting the pending claims under 35 U.S.C. § 101, the Examiner determines that the claims are directed to “adjusting parameters for a market making strategy.” Final Act. 3. The Examiner determines that adjusting parameters for a market making strategy is “a longstanding commercial practice” and “a fundamental economic practice long prevalent in our system of commerce,” i.e., an abstract idea. *Id.* The Examiner further determines that the claims do not include additional elements or a combination of elements that are sufficient to amount to significantly more than the abstract idea because “the claims do no more than implement adjusting parameters for a market making strategy on a generic computer.” *Id.* at 3–4. Individually, the claimed steps each “amounts to data analysis, which is one of the most basic functions of a computer” and recites “‘well-understood, routine, conventional activit[ies]’ previously known to the industry” that require no more than “a generic computer to perform generic computer functions.” *Id.* at 4. The ordered combination adds nothing that is not already present when the steps are considered separately. *See id.* In this

regard, the Examiner concludes that the claims do not purport to improve the functioning of a computer itself or other technology or technical field, and that the use of an unspecified, generic computer hardware merely links the system to a particular technological environment by computers. *Id.*

Appellant argues that the Examiner erred in rejecting the claims under 35 U.S.C. § 101 because the Examiner has not shown by objective evidence, such as a citation to a finance or banking textbook or standard, that the present claims are directed to an abstract idea. App. Br. 3, n.1. Patent eligibility under § 101 is a question of law that may involve underlying questions of fact. *Move, Inc. v. Real Estate Alliance Ltd.*, 2018 WL 656377, at \*2 (Fed. Cir. 2018). Although evidence may be helpful when facts are in dispute, it is not always needed. *See Mortgage Grader, Inc. v. First Choice Loan Services Inc.*, 811 F.3d 1314, 1325–26 (Fed. Cir. 2016) (“it is also possible, as numerous cases have recognized, that a § 101 analysis may sometimes be undertaken without resolving fact issues”). Here, however, Appellant’s bare assertion that a finance or textbook or other standard must be cited, without any supporting reasoning as to why, is insufficient to require the Examiner to provide further evidentiary support for his patent-eligibility determination.

Addressing step one of the *Mayo/Alice* framework, Appellant argues that the claims are patent-eligible because the claimed invention is “a novel and patentable transaction processing system and user interface” that improves the interaction between the user and transaction system and can be used to efficiently respond to rapidly changing data. App. Br. 4. Appellant contends that the claimed invention facilitates transaction modifications by providing automatic submission of multiple orders responsive to a change in

parameters, which is “neither a routine nor conventional activity previously known in the industry . . . , as evidenced by the lack of prior art.” *Id.* But a finding of novelty or non-obviousness does not automatically lead to the conclusion that the claimed subject matter is patent-eligible.

“Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.” *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013). A novel and non-obvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 90; *see also Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981) (“The ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.”).

Here, Appellant’s Specification provides that a market maker is an entity that maintains buy (“Bid”) and sell (“Ask”) prices in a given instrument by standing ready, willing, and able to buy or sell lots/shares at publicly quoted prices. Spec. ¶ 2. Market makers must give traders the best Bid or Ask prices for each market order transaction. *Id.* Because “market making is a fast moving business” and the current process for adjusting submitted orders is “overly cumbersome and time consuming,” a market maker may lose advantageous buy and sell opportunities. *Id.* ¶ 3. Appellant’s Specification, thus, describes that the claimed invention seeks to improve the process of adjusting submitted orders for speed and efficiency. *Id.* ¶ 4. Appellant does not indicate, and we do not find, where the Specification describes any improvements in computer functionality or other technology brought about by the claimed invention.

In addition, claim 1 recites a method for adjusting one or more parameters of an implemented strategy for making markets. The method comprises the steps of implementing a market making strategy, determining a target market value, establishing one or more parameters of the strategy, generating and submitting a trade order, providing a parameter adjustment graphical user interface, and adjusting through user input the parameter adjustment graphical user interface. The Specification and claims thus support the Examiner's determination that the claims focus on an improvement to the process of adjusting parameters for a market maker strategy, which is a fundamental economic practice and longstanding commercial practice, i.e., an abstract idea. *See, e.g.*, Spec. ¶ 3, 15–16 (describing adjustment of parameters by money makers as a practice long prevalent in our system of commerce practice). The intrinsic evidence also supports the Examiner's determination that the claims fall under the information-based category of abstract ideas.

Turning to step two of the *Mayo/Alice* framework, Appellant argues that the claimed invention includes additional elements that amount to significantly more than the abstract idea. App. Br. 5. In particular, Appellant asserts that the claimed invention “improves the functioning of a computer, i.e. by providing a system which facilitates rapid and efficient transaction modifications, e.g. adjustment of orders, to capture advantageous transactional opportunities and minimize transactions unlikely to transact, e.g. orders unlikely to trade.” *Id.* In this regard, Appellant asserts that the claimed invention “improves upon the ability to indirectly adjust [the] parameters of a transaction strategy and automatically submit the necessary orders responsive to those adjustments.” *Id.* Yet, the advantages that

Appellant touts do not concern an improvement to computer capabilities, but instead relate to an improvement to the process for adjusting parameters for which a computer system is used as a tool in its ordinary capacity. In this case, a generic graphical user interface performs the well-understood function of receiving user input, and a generic computer system performs routine data processing steps. Appellant fails to identify, and we do not find, any indication in the record that the claimed invention improves computer functionality, requires specialized computer hardware or other inventive components, invokes inventive programming, or is otherwise directed to something other than the abstract idea identified by the Examiner.

We also are not persuaded by Appellant’s argument that the claimed invention is akin to Example 3.<sup>3</sup> App. Br. 5. Example 3 is modeled after the claims in *Research Corporation Technologies Inc. v. Microsoft Corp.*, 621 F.3d 859 (Fed. Cir. 2010). *Examples 7*. In *Research Corporation* the Federal Circuit determined that the claimed invention was patent-eligible, because it presented “functional and palpable applications in the field of computer technology” and addressed “a need in the art for a method of and apparatus for the halftone rendering of gray scale images in which a digital data processor is utilized in a simple and precise manner to accomplish the halftone rendering.” *Research Corp. Techs.*, 621 F.3d at 868–69. We find no analogous improvement to computer technology in Appellant’s claims.

Appellant asserts that “the claims include specific limitations other than what is well-understood, routine and conventional in the field, as is

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<sup>3</sup> USPTO’s *Examples: Abstract Ideas* (Jan. 27, 2015), available at [https://www.uspto.gov/sites/default/files/documents/abstract\\_idea\\_examples.pdf](https://www.uspto.gov/sites/default/files/documents/abstract_idea_examples.pdf) (hereinafter “*Examples*”).

apparent from the lack of prior art.” App. Br. 6. Appellant identifies these elements as those “allow[ing] the trader to specify parameters for which the claimed system . . . generates the necessary transactions to accomplish.” But, Appellant seemingly misapprehends the controlling precedent.

Although the second step in the *Mayo/Alice* framework is termed a search for an “inventive concept,” the analysis is not an evaluation of novelty or non-obviousness, but rather, a search for “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [patent-ineligible concept] itself.’” *Alice Corp.*, 134 S. Ct. at 2355. As described above, a novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 90. Here, Appellant does not persuade us that the claims require more than the use of a conventional graphical user interface operating in a well-understood and routine manner (e.g., receiving input from a user).

We also are not persuaded by Appellant’s assertion that the claimed system “is confined to a particular useful application of adjusting transactions in a transaction processing system.” App. Br. 6. The mere recitation of a practical application for an abstract idea is insufficient to transform the abstract idea into a patent-eligible invention. *Cf. CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) (“The Court [in *Parker v. Flook*, 437 U.S. 584 (1978)] rejected the notion that the recitation of a practical application for the calculation could alone make the invention patentable.”).

Appellant argues that the “claimed system requires more than just a general purpose computer system to operate.” App. Br. 6. Yet, claim 1

merely recites a generic “computer system.” We find no indication in the record, nor does Appellant point to anything in the record to indicate, that the claimed computer system requires any specialized computer hardware. To the contrary, paragraph 14 of the Specification describes that the trading platform “may be essentially any capable computer or other digital processing device.” Similarly, the claimed computer system performs the steps of implementing, determining, establishing, generating, and submitting, which are generic computer functions. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (claims held to be directed to an abstract idea where “[t]he advance they purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions.”)

In the Reply Brief, Appellant further argues that the claims are “necessarily rooted in computer technology,” analogous to the claims at issue in *DDR Holdings*. Reply Br. 3 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)). Particularly, Appellant repeats assertions that the claimed invention improves interaction between the user and transaction processing system, and the technical fields of man/machine interaction and data and transaction processing. *See id.* Yet, as described above, there is no indication in the record that the claimed graphical user interface is more than a generic graphical user interface used in its normal, expected, and routine manner. *See DDR Holdings*, 773 F.3d at 1256 (“after *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible”).

Accordingly, on the record before us, we sustain the Examiner's rejection under 35 U.S.C. § 101 of independent claim 1, and the remaining claims.

*Obviousness*

We are persuaded by Appellant's argument that the Examiner erred in rejecting independent claim 1 under 35 U.S.C. § 103(a) because Kaminsky does not disclose or suggest submitting and generating an order based on a determined target market value and one or more parameters selected from the group consisting of: (a) Book Depth, (b) Aggression, and (c) Bias to an exchange, as recited in claim 1. The Examiner relies on Kaminsky for the argued limitation. Final Act. 6–7 (citing Kaminsky ¶¶ 10, 23, 25, 30, 31, 33, 35, 37, 73, 104, 108, 110, Figs. 2A, 3, 4).

Kaminsky describes a market-maker GUI submits and modifies market-maker quotes, and sets market-maker defaults and parameters. Kaminsky ¶ 26. The market-maker GUI also can submit, cancel, update, or replace orders; resend reports; present book depths for selected products; and present underlying quotes and news alerts. *Id.* ¶¶ 25–26.

Appellant does not dispute that Kaminsky's market maker initially submits a quote to an exchange system. *See* App. Br. 10. However, Appellant argues that Kaminsky "provides no teaching as to how externally submitted quotes are created," much less that externally submitted quotes are generated based on a determined target market value and a parameter selected from the group of Book Depth, Aggression, and Bias, as required by claim 1. *Id.* at 13. We agree. Kaminsky's disclosure that the market maker GUI can present book depths for selected products, set the market-maker's

defaults and parameters, and submit trade orders does not adequately support the Examiner's finding that Kaminsky establishes Book Depth as a parameter of the strategy and generates and submits trade order in accordance with target value and Book Depth, as required by claim 1.

In the Answer, the Examiner finds that Kaminsky's disclosure at paragraphs 107 and 108 regarding quote service module 240 describes generating trade orders based on a market value and parameters. Ans. 6. This module modifies quotes by regenerating a just-filled quote when the market maker's risk threshold has not been exceeded. Kaminsky ¶ 108. In particular, the module stores parameters from the market maker regarding, for example, how many times the quotes are to be regenerated and whether the regenerated quotes have the same bid and offer values. *Id.* However, even if Kaminsky taught that these parameters are selected from a group consisting of Book Depth, Aggression, and Bias, this module is internal to the exchange system 100 and manages quotes already submitted to the exchange. *Id.* ¶ 70 (exchange system 100 includes quote service module 240), ¶ 104 (quote service module 240 belongs to exchange system 100 and includes quote service module). As such, the quote regeneration module does not describe generating and submitting the quotes to an exchange, as required by claim 1.

Moreover, the Examiner does not adequately explain why one of ordinary skill in the art would modify the placement of this module to be outside the exchange in light of Kaminsky's description of providing the generation internal to the exchange to minimize delay. *See* Kaminsky ¶ 9 (describing inability of software tools external to the exchange to act in sufficient time to revise or cancel quotes).

Appeal 2016-003797  
Application 12/103,615

Accordingly, we do not sustain the rejection of claim 1 under 35 U.S.C. § 103(a) or its dependent claims.

#### DECISION

The Examiner's rejection of claims 1–5 and 12–18 under 35 U.S.C. § 101 is affirmed.

The Examiner's rejection of claims 1–5 and 12–18 under 35 U.S.C. § 103(a) is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED