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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* HOWARD W. LUTNICK, KEVIN FOLEY,  
ANDREW FISHKIND, and PHILIP MARBER

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Appeal 2016-006448  
Application 12/135,479<sup>1</sup>  
Technology Center 3600

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Before ERIC S. FRAHM, LARRY J. HUME, and  
STEVEN M. AMUNDSON, *Administrative Patent Judges*.

HUME, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the Final Rejection of claims 1–11 and 13–18, which are all claims pending in the application. Appellants have canceled claim 12. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> According to Appellants, the real party in interest is CFPH, L.P. App. Br. 3.

STATEMENT OF THE CASE<sup>2</sup>

*The Invention*

Appellants' disclosed embodiments and claimed invention relate to "[a] trading platform and trading method that allows access to additional pools of liquidity." Abstract.

*Exemplary Claim*

Claim 1 (App. Br. 17 (Claims App'x)), reproduced below, is representative of the subject matter on appeal:

1. A method comprising:

receiving, by an alternative trading system, an indication of an order, in which the order includes a side of a trade for a financial instrument;

determining, by the alternative trading system, that a matching order is stored in an order management system associated with a buy-side participant of the alternative trading system, in which a matching order includes an opposite side of the trade for the financial instrument;

providing, by the alternative trading system to the buy-side participant, information identifying that the order for the financial instrument exists, in which the information does not include the side of the trade; and

requesting, by the alternative trading system, that the buy-side participant perform an action in order to receive additional information about the order, in which the additional information includes the side of the trade.

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<sup>2</sup> Our decision relies upon Appellants' Appeal Brief ("App. Br.," filed Jan. 12, 2015); Reply Brief ("Reply Br.," filed June 15, 2016); Examiner's Answer ("Ans.," mailed Apr. 15, 2016); Final Office Action ("Final Act.," mailed Aug. 22, 2013); and the original Specification ("Spec.," filed June 9, 2008).

*Rejection on Appeal*<sup>3</sup>

Claims 1–11 and 13–18 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 2; Ans. 2.

CLAIM GROUPING

Based on Appellants' arguments (App. Br. 4–5), we decide the appeal of Rejection R1 of claims 1–11 and 13–18 on the basis of representative claim 1.<sup>4</sup>

ISSUE

Appellants argue (App. Br. 4–5; Reply Br. 2–5) the Examiner's rejection of claim 1 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter is in error. These contentions present us with the following issue:

Did the Examiner err in concluding claim 1 is directed to an abstract idea without significantly more?

ANALYSIS

In reaching this decision, we consider all evidence presented and all arguments actually made by Appellants. We do not consider arguments

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<sup>3</sup> We note the Examiner has withdrawn the §§ 112, second paragraph and 103(a) rejections of the pending claims. *See* Ans. 6.

<sup>4</sup> "Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately." 37 C.F.R. § 41.37(c)(1)(iv). In addition, when Appellants do not separately argue the patentability of dependent claims, the claims stand or fall with the claims from which they depend. *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

Appellants could have made but chose not to make in the Briefs, and we deem any such arguments waived. 37 C.F.R. § 41.37(c)(1)(iv).

We disagree with Appellants' arguments with respect to claims 1–11 and 13–18 and, unless otherwise noted, we incorporate by reference herein and adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken, and (2) the reasons and rebuttals set forth in the Examiner's Answer in response to Appellants' arguments. We highlight and address specific findings and arguments regarding claim 1 for emphasis as follows.

Appellants first contend, "[t]he Examiner fails to apply a legal standard of patentable subject matter" (App. Br. 4), and "[t]he Office Action does not identify any abstract idea that the claims are allegedly directed towards. This is in sharp contrast to the Supreme Courts [sic] dictates in *Alice*."<sup>5</sup> App. Br. 5. Further, "the Office Action fails to identify whether any claim in whole and through a limitation by limitation analysis adds significantly more than the abstract idea" and, as such, "a rejection under 35 USC 101 is improper." *Id.*

These statements represent the totality of Appellants' arguments regarding the Examiner's pre-*Alice* rejection under § 101. *See* Final Act. 2. In the Answer, the Examiner conducts a detailed 2-step *Alice* analysis. *See* Ans. 2–5.

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<sup>5</sup> *Alice Corp. Pty Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014).

*Alice Step 1 — Abstract Idea*

In the Reply Brief, and in response to the Examiner's 2-step *Alice* analysis, Appellants argue the Examiner made numerous errors in rejecting the claims under § 101. Reply Br. 2. For example, Appellants argue:

First, the Examiner fails to make a prima facie showing that the alleged abstract idea of "facilitating execution of a trade" is abstract. Instead, the Examiner makes a factual finding without any evidence in clear violation of the administrative procedure acts [sic] requirement for substantial evidence to make such factual findings. Even the Supreme Court provided evidence of abstractness in the form of a textbook. Here, the Examiner provides no evidence at all.

The Examiner does not even make an explicit allegation that "facilitating execution of a trade" falls into a category of ideas recognized by the Court in *Alice* such as "a fundamental economic practice long prevalent in our system of commerce."

No evidence and no rationale cannot possibly meet the requirements of substantial evidence. Accordingly, the rejection should be overturned.

*Id.* We disagree with Appellants' contentions.

We disagree with Appellants because the Examiner states:

The limitations that set forth the abstract idea are receiving, determining, providing, and requesting information for facilitating execution of a trade. In other words, the claim describes comparing and formatting information for transmission.

This is so because these steps can be performed mentally, and are similar to the concepts identified as abstract ideas by the courts (e.g., using categories to organize and store information for transmission (Cyberfone) or comparing new and stored information and using rules to identify options in (SmartGene)).

Specifying the type of information being manipulated  
(information does not render the idea any less abstract.

Ans. 3.<sup>6</sup>

Section 101 provides that anyone who "invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" may obtain a patent. 35 U.S.C. § 101. The Supreme Court has repeatedly emphasized that patent protection should not extend to claims that monopolize "the basic tools of scientific and technological work." *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012); *Alice Corp. Pty Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014). Accordingly, laws of nature, natural phenomena, and abstract ideas are not patent-eligible subject matter. *Id.*

The Supreme Court's two-part *Mayo/Alice* framework guides us in distinguishing between patent claims that impermissibly claim the "building blocks of human ingenuity" and those that "integrate the building blocks into something more." *Alice*, 134 S. Ct. at 2354. First, we "determine whether the claims at issue are directed to a patent-ineligible concept." *Id.* at 2355. If so, we "examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Id.* at 2357 (quoting *Mayo*, 566 U.S. at 72, 79). While the two steps<sup>7</sup> of the *Alice* framework are related, the

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<sup>6</sup> See *Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App'x 988 (Fed. Cir. 2014); and see *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App'x 950 (Fed. Cir. 2014).

<sup>7</sup> Applying this two-step process to claims challenged under the abstract-idea exception, the courts typically refer to step one as the "abstract idea"

"Supreme Court's formulation makes clear that the first-stage filter is a meaningful one, sometimes ending the § 101 inquiry." *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). We note the Supreme Court "has not established a definitive rule to determine what constitutes an 'abstract idea'" for the purposes of step one. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016) (citing *Alice*, 134 S. Ct. at 2357).

However, our reviewing court has held claims ineligible as being directed to an abstract idea when they merely collect electronic information, display information, or embody mental processes that could be performed by humans. *Elec. Power Grp.*, 830 F.3d at 1353–54 (collecting cases). At the same time, "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. Under this guidance, we must therefore ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful. *Alice*, 134 S. Ct. at 2354 ("[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law.").

Under the "abstract idea" step we must evaluate "the 'focus of the claimed advance over the prior art' to determine if the claim's 'character as a whole' is directed to excluded subject matter." *Affinity Labs*, 838 F.3d at 1257 (citation omitted).

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step and step two as the "inventive concept" step. *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016).

Turning to the claimed invention, and as the Examiner points out as cited, *supra*, (*see* Ans. 3), claim 1 recites receiving and processing information, i.e., "receiving . . . an indication of an order"; "determining . . . that a matching order is stored"; providing . . . information"; and "requesting . . . the . . . participant perform an action." Claim 1.

Under step one, we agree with the Examiner that the inventions claimed in each of independent claims 1 and 18 are directed to an abstract idea, i.e., "receiving, determining, providing, and requesting information for facilitating execution of a trade. In other words, the claim describes comparing and formatting information for transmission." Ans. 3. Further, we also conclude the claims may be considered as being directed to organizing human activities pertaining to execution of a trade, i.e., a fundamental economic practice by using an "alternative trading system," which we take to mean involves using a programmed computer and communications system.

As the Specification itself observes:

In summary, the present invention includes an electronic trading marketplace that generates liquidity, at least in part, by receiving order information directly from the databases of OMS systems at trading institutions. Since orders are extracted from the OMS databases automatically, and information about executed orders is inserted into the databases automatically, the OMS databases "see" the marketplace as "just another market intermediary." Moreover, traders are able to conduct trades in the electronic marketplace without any duplicative manual efforts.

Spec. 72, ll. 20–26.<sup>8</sup>

We find this type of activity, i.e., receiving, storing, and processing order information includes longstanding conduct that existed well before the advent of computers and the Internet, and could be carried out by a human with pen and paper. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) ("That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.").<sup>9</sup>

Our reviewing court has previously held other patent claims ineligible for reciting similar abstract concepts. For example, while the Supreme Court has altered the § 101 analysis since *CyberSource* in cases like *Mayo* and *Alice*, the Court continues to "treat[ ] analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146–47 (Fed. Cir. 2016) (alteration in original) (quoting *Elec. Power Grp.*, 830 F.3d at 1354).

In this regard, the claims are similar to claims our reviewing court has found patent ineligible in *Electric Power Group*, 830 F.3d at 1353–54 (collecting information and "analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract-idea category").

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<sup>8</sup> In addition, the Abstract states: "A trading platform and trading method that allows access to additional pools of liquidity is described." Spec. 75.

<sup>9</sup> *CyberSource* further guides that "a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101." *CyberSource*, 654 F.3d at 1373.

Therefore, in agreement with the Examiner, we conclude claim 1 involves nothing more than receiving, storing, processing, and transmitting data, without any particular inventive technology — an abstract idea. *See Elec. Power Grp.*, 830 F.3d at 1354. We further refer to *Content Extraction*, where the Federal Circuit has provided additional guidance on the issue of statutory subject matter by holding claims to collecting data, recognizing certain data within the collected data set, and storing that recognized data in memory were directed to an abstract idea and therefore unpatentable under § 101. *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343 (Fed. Cir. 2014).

Accordingly, on this record, and under step one of *Alice*, we agree with the Examiner's conclusion the claims include an abstract idea.

*Alice Step 2 —Inventive Concept*

If the claim is directed to a patent-ineligible concept, as we conclude above, we proceed to the "inventive concept" step. For that step we must "look with more specificity at what the claim elements add, in order to determine 'whether they identify an "inventive concept" in the application of the ineligible subject matter' to which the claim is directed." *Affinity Labs*, 838 F.3d at 1258 (quoting *Elec. Power Grp.*, 830 F.3d at 1353).

In applying step two of the *Alice* analysis, our reviewing court guides we must "determine whether the claims do significantly more than simply describe [the] abstract method" and thus transform the abstract idea into patentable subject matter. *Ulramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014). We look to see whether there are any "additional features" in the claims that constitute an "inventive concept," thereby

rendering the claims eligible for patenting even if they are directed to an abstract idea. *Alice*, 134 S. Ct. at 2357. Those "additional features" must be more than "well-understood, routine, conventional activity." *Mayo*, 566 U.S. at 79.

Evaluating representative claim 1 under step 2 of the *Alice* analysis, we agree with the Examiner that it lacks an "inventive concept" that transforms the abstract idea of receiving, storing, processing, and transmitting data into a patent-eligible application of that abstract idea. *See* Ans. 3.<sup>10</sup> We agree with the Examiner because, as in *Alice*, we find the recitation of a method (claim 1) of using an alternative trading system that receives and processes trade order is simply not enough to transform the patent-ineligible abstract idea here into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2357 ("[C]laims, which merely require generic computer implementation, fail to transform [an] abstract idea into a patent-eligible invention.").

Accordingly, based upon the findings above, on this record, we are not persuaded of error in the Examiner's conclusion that the appealed claims are directed to patent-ineligible subject matter. Therefore, we sustain the Examiner's § 101 rejection of independent claim 1, and grouped claims 2–11 and 13–18, which fall therewith. *See Claim Grouping, supra*.

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<sup>10</sup> "Here the claims do not [include an inventive concept]. The alternative trading system is recited at a high level of generality, and comprises, according to the specification, only a microprocessor and memory to simply perform the generic computer functions of receiving, manipulating and transmitting information to a computer of the remote subscriber. Generic computers performing generic computer functions, alone, do not amount to significantly more than the abstract idea." Ans. 3.

REPLY BRIEF

To the extent Appellants may advance new arguments in the Reply Brief (Reply Br. 2–5) not in response to a shift in the Examiner's position in the Answer, we note arguments raised in a Reply Brief that were not raised in the Appeal Brief or are not responsive to arguments raised in the Examiner's Answer will not be considered except for good cause (*see* 37 C.F.R. § 41.41(b)(2)), which Appellants have not shown.

CONCLUSION

The Examiner did not err with respect to the patent-ineligible subject matter rejection of claims 1–11 and 13–18 under 35 U.S.C. § 101, and we sustain the rejection.

DECISION

We affirm the Examiner's decision rejecting claims 1–11 and 13–18.

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED