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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS F. HALLER

Appeal 2017-009923
Application 14/548,908[1]
Technology Center 3600

Before ELENI MANTIS MERCADER, NORMAN H. BEAMER, and ADAM J. PYONIN, *Administrative Patent Judges*.

BEAMER, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–7 and 13–15. Claims 8–12 are withdrawn. We have jurisdiction over the pending rejected claims under 35 U.S.C. § 6(b).

We affirm.

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[1] Appellant identifies NYSE Group, Inc. as the real party in interest. (App. Br. 1.)

THE INVENTION

Appellant's disclosed and claimed invention is directed to a trading platform adapted for pairs trading of unrelated securities from one or more asset classes using a single order approach. (Abstract.)

Independent claim 1, reproduced below, is illustrative of the subject matter on appeal:

> 1. A computer-implemented method comprising:
>
> in a computer system comprising a paring module, a trading engine module, an order books module and at least one database structure, said database structure defining a plurality of order books and storing data defining predefined pairs of unrelated securities as single orders in said plurality of order books:
>
> receiving, by the pairing module over the Internet from a remote computing device, a selection of a predefined pair of unrelated securities;
>
> creating, by the pairing module, a pairs trade order based on said selection of the predefined pair, said pairs trade order comprising a first leg and a second leg;
>
> entering, by the order books module, said pairs trade order as a single order into a corresponding order book, from among the plurality of order books, associated with the selection, the pairs trade order having order parameters, a portion of the order parameters associated with the first leg, another portion of the order parameters associated with the second leg;
>
> automatically and continuously attempting, by the trading engine module, to associate the order parameters retrieved from said order book to information in other trade orders; and
>
> causing, by the trading engine module, a programmed computer to execute said pairs trade order when the order parameters associated with each of said first leg and said second leg correspond to the information in the other trade orders.

REJECTIONS[2]

The Examiner rejected claims 1–7 and 13–15 under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception without significantly more. (Final Act. 7.)

ISSUE ON APPEAL

Appellant's arguments in the Appeal and Reply Briefs present the following issue:[3]

Whether the Examiner erred in finding claims 1–7 and 13–15 as directed to non-statutory subject matter. (Reply Br. 2–5.)

ANALYSIS

The Examiner concludes the pending claims are patent-ineligible under 35 U.S.C. § 101 because:

> [Independent claim 1] in its entirety is clearly focused on the combination of those abstract-idea processes of "receiving", "creating", "entering", "attempting to associate" and "causing to execute". In other words, the claims describe[] collecting information, creating a pairs trade order, attempting to associate[e] information and executing an order based on the association. The advance they purport to make is a process of collecting information, analyzing the information and executing a trade order based on the analysis.

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[2] The rejection of claims 1–7 under 35 U.S.C. § 112, second paragraph (*see* Final Act. 13) was withdrawn in the Answer. (Ans. 5.)

[3] Rather than reiterate the arguments of Appellant and the positions of the Examiner, we refer to the Appeal Brief (filed Mar. 22, 2017); the Reply Brief (filed July 17, 2017); the Final Office Action (mailed Dec. 22, 2016); and the Examiner's Answer (mailed May 18, 2017) for the respective details.

(Ans. 3.) The Examiner further finds that there is nothing in the claims that is significantly more than this abstract idea, because "the additional elements (e.g. individual modules connected to the computer system) only perform functions which are well-understood, routine and conventional" (Final Act. 5) and here a "computer is employed for its most basic functions of repetitive data processing as an obvious mechanism for permitting a solution to be achieved more quickly." (Ans. 3.)

Appellant argues "the Examiner listed only general aspects (or the 'gist') of each claim limitation individually, and then used these generalizations to render the entire claim abstract." (App. Br. 6.) Particularly, Appellant contends the Examiner "has not considered Appellant's unconventional database structure and data handling mechanism which allows for the efficient processing of paired orders of unrelated securities." (Reply Br. 3–4.) Appellant cites *Trading Technologies International, Inc. v. CQG, INC.*, 675 Fed.Appx. 1001 (2017) (non-precedential) as acknowledging "that improvements such as speed, accuracy and usability in a ***trading system*** are indeed technical improvements that include inventive, patent-eligible concept(s) (despite relating to a trading system)." (App. Br. 8, emphasis in original.)[4]

Appellant also contends the claims are statutory pursuant to *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) as the claims "similarly include a *reconfigured database structure*" (App. Br. 13, emphasis in original) and also contends the claims are statutory pursuant to

[4] We note the "specific improvement" in *Trading Technologies* refers to the "claimed graphical user interface." *Trading Technologies*, 675 F. App'x at 1006.

Bascom Global Internet Services, Inc. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016), *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (2014), and *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed Cir. 2016). (App. Br. 14–15.)

We are not persuaded of Examiner error. The Supreme Court has long held that "[l]aws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589–90 (2013)). The "abstract ideas" category embodies the longstanding rule that an idea, by itself, is not patentable. *Alice Corp.*, 134 S. Ct. at 2354–55 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

In *Alice*, the Supreme Court sets forth an analytical "framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Id.* 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," such as an abstract idea. *Id.* If the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims "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." *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 79, 78 (2012)). In other words, the second step is to "search for an 'inventive concept'—*i.e.*, 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

[ineligible concept] itself.'" *Id.* (quoting *Mayo*, 566 U.S. at 73.) The prohibition against patenting an abstract idea "'cannot be circumvented by attempting to limit the use of the formula to a particular technological environment' or adding 'insignificant postsolution activity.'" *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010).

Turning to the first step of the *Alice* inquiry, we agree with the Examiner's determination that the claims are directed to the abstract idea of a "executing a trade order based on [ ] analysis." (Ans. 3.)

There is no definitive rule to determine what constitutes an "abstract idea." Rather, the Federal Circuit has explained that "both [it] and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016); *see also Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (explaining that, in determining whether claims are patent-eligible under § 101, "the decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided"). The Federal Circuit also noted that "examiners are to continue to determine if the claim recites (i.e., sets forth or describes) a concept that is similar to concepts previously found abstract by the courts." *Amdocs*, 841 F.3d at 1294 n.2.

Here, the Examiner determines that the claimed steps of "receiving," "creating," "entering," "attempting . . . to associate," and "causing . . . to execute" are the abstract concept of "collecting information" and "analyzing the information." We agree, as our reviewing court has held, that collecting

information, including when limited to particular content, analyzing it, and outputting the result are steps within the realm of abstract ideas. *See, e.g., Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed Cir. 2016); *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1349 (Fed. Cir. 2015); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014); and *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011). Additionally, as further explained below, Appellant does not persuade us that the Examiner has oversimplified the claims "to the 'gist' of certain concepts."

Turning to the second step of the *Alice* inquiry, we find nothing in the claims that adds anything "significantly more" to transform the abstract idea of executing a trade order. *Alice*, 134 S. Ct. at 2357. Beyond an abstract idea, the claims merely recite "'well-understood, routine, conventional activit[ies]."' *Id.* at 2359 (quoting *Mayo*, 566 U.S. at 73).

Appellant makes the related arguments that the Examiner has oversimplified the claims and that in doing so "has not considered Appellant's unconventional database structure and data handling mechanism," which adds significantly more. We disagree, as Appellant offers no factual support for the assertion that Appellant's claimed invention includes an unconventional database structure and data handling mechanism.

Although the claim recites a "database structure" that defines "a plurality of order books and storing data defining predefined pairs of unrelated securities as single orders in said plurality of order books," the disclosure fails to describe this structure in any terms indicating a database, much less an unconventional database, is used. *See particularly* Paragraph

26 of the specification (stating that a "machine-readable storage medium" could include a "database"), and Paragraphs 3–5, 7, 16, 20, 21, 27, and 28 and Figs. 1–4, of the specification, the portions of the disclosure that Appellant identifies (at App. Br. 2) in the Summary of Claimed Subject Matter regarding the "database structure." Absent some description identifying an "unconventional database structure," it is not possible to discern anything that constitutes "significantly more" herein, and thus making the claim statutory as in the decisions cited by Appellant. Further, "merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea." *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015); *see also Credit Acceptance Corp.* v. *Westlake Services*, 859 F.3d 1044, 1057 (Fed. Cir. 2017).

As the claimed combination fails to add significantly more to the abstract idea, we affirm the Examiner's non-statutory subject matter rejection of independent method claim 1 and corresponding independent system claim 7, and dependent claims 2–6 and 13–15.

CONCLUSION

For the reasons stated above, we affirm the Examiner's non-statutory subject matter rejection of claims 1–7 and 13–15.

DECISION

The Examiner's decision rejecting claims 1–7 and 13–15 under 35 U.S.C. § 101 is affirmed.

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