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FENWICK & WEST LLP
SILICON VALLEY CENTER
801 CALIFORNIA STREET
MOUNTAIN VIEW, CA 94041
UNITED STATES OF AMERICA

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NOEL ARCHARD, DARIUSZ WOJNAR, TONY KELLY, and LELAND CLEMONS

Appeal 2017-002695
Application 13/491,512
Technology Center 3600

Before NINA L. MEDLOCK, AMEE A. SHAH, and MATTHEW S. MEYERS, *Administrative Patent Judges*.

SHAH, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

The Appellants[2] appeal under 35 U.S.C. § 134(a) from the Examiner's final decision rejecting claims 1–15.[3] We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

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[1] Throughout this decision, we refer to the Appellants' Appeal Brief ("Appeal Br.," filed Mar. 23, 2016), Reply Brief ("Reply Br.," filed Dec. 20, 2016), and Specification ("Spec.," filed June 7, 2012), and to the Examiner's Answer ("Ans.," mailed Oct. 20, 2016) and Final Office Action ("Final Act.," mailed July 22, 2015).

[2] According to the Appellants, the real party in interest is BlackRock Fund Advisors. Appeal Br. 1.

[3] The Appellants requested an oral hearing, but waived appearance at the hearing that was scheduled for January 31, 2019. *See* Waiver (filed Jan. 28, 2019).

STATEMENT OF THE CASE

The Appellants' invention "relates generally to financial services and products, and more particularly to financial systems for trading a blind exchange traded fund (ETF), which does not provide visibility to the holdings of the ETF." Spec. ¶ 1.

Claim 1 (Appeal Br. 16 (Claims App.)) is the only independent claim on appeal, is representative of the subject matter on appeal, and is reproduced below:

> 1. A method for managing a blind exchange traded fund (ETF), the method comprising:
>
> monitoring a market price per share and a Net Asset Value (NAV) price of the blind ETF over time, where the blind ETF does not publish the holdings of the blind ETF;
>
> detecting a trigger event, using a computer processor, wherein the trigger event occurs when the market price of the ETF is lower than the NAV price of the ETF for a threshold condition;
>
> opening a small lot redemption window responsive to detecting the trigger event, investors having an option while the window is open to redeem a small lot of shares at a price, a small lot of shares being an amount of shares being less than a creation unit of the ETF; and
>
> responsive to the opening of the window, sending a notification of the option to redeem a small lot of shares of the ETF at the price.

THE REJECTION

Claims 1–15 stand rejected under 35 U.S.C. § 101 as being directed to a judicial exception without significantly more.

ANALYSIS

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court's two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.,* the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); "tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores" (*id.* at 184 n.7 (quoting *Corning v. Burden*, 56 U.S.

252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that "[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 176; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Supreme Court also indicated that a claim "seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (internal citation omitted) (citing *Benson* and *Flook*); *see, e.g., id.* at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must 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." *Alice*, 573 U.S. at 221 (citation omitted). "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.* (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

Preliminary Matter

Before turning to the *Mayo/Alice* framework, we address the Appellants' contention that the Examiner's rejection is in error because the Examiner fails to set forth a prima facie case of subject matter ineligibility. *See* Appeal Br. 4–6; Reply Br. 3–5. Specifically, the Appellants argue that the Examiner fails to: (1) "provid[e] a rationale or cit[e] to facts on the record, . . . [but] simply concludes that 'managing a blind exchange traded fund is a fundamental financial economic practice'" (Appeal Br. 4 (quoting Final Act. 3)); (2) "compare the proposed idea to a concept identified by the courts as an abstract idea, nor explain how the proposed abstract idea is a method of organizing human activity" (*id.* at 5, citing the JULY 2015 UPDATE ON SUBJECT MATTER ELIGIBILITY ("July Update"), 80 Fed. Reg. 45429 (July 30, 2015), issued after the mailing date of the Final Office Action); (3) properly address all of the limitations in claim 1" (*id.*at 6; *see also* Reply Br. 3–4)); or (4) "provid[e] notice of the reasons" for rejecting claims 2–15 (Appeal Br. 4; Reply Br. 4). We are not persuaded of Examiner error.

Here, in rejecting the claims under § 101, the Examiner analyzes the claims using the *Mayo*/*Alice* two-step framework. Specifically, the Examiner looks to the language of claim 1, as representative of all of the claims, identifies particular specific limitations, and determines that all of the claims are directed to "managing a blind exchange traded fund" (Ans. 2–3; Final Act. 3, 5), an abstract idea of "a fundamental economic practice and a method of organizing human activity by providing an opportunity for parties to enter into a specified agreement" (Final Act. 3), similar to the claims of *Alice* (Ans. 3).[4] The Examiner further determines that the additional elements of the claims, taken alone and as an ordered combination, do not ensure that the claims amount to significantly more than the abstract idea. Final Act. 3–5; Ans. 3–4. Although we agree with the Appellants that additional explanation is always helpful, the Examiner has clearly articulated the reasons for the rejection and has notified the Appellants of the reasons for the rejection "together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application." 35 U.S.C. § 132. And, we find that, in doing so, the Examiner set forth a prima facie case of unpatentability. *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011); *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990) (Section 132 "is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.").

The First Step

Under the first step of the *Mayo/Alice* framework, the Examiner determines that the claims are directed to "managing a blind exchange traded fund" (Ans. 2–3; Final Act. 3, 5), an abstract idea of "a fundamental economic practice and a method of organizing human activity by providing an opportunity for parties to enter into a specified agreement" (Final Act. 3). In the Appeal Brief, the Appellants do not disagree that the claims are

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[4] We note that under the 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50, 52–54 (Jan. 7, 2019) ("2019 Revised Guidance"), there is no requirement that the Examiner must cite to judicial decisions as evidence that the claims are directed to an abstract idea.

directed to "managing a blind exchange traded fund," but argue that "ETFs are neither abstract nor a fundamental economic practice. Rather, an ETF is a specific type of investment vehicle that must obey specific rules and is created and redeemed by in-kind transfers of underlying fund assets by an authorized participant on a primary market." Appeal Br. 7; *see also* Reply Br. 6–7 ("the claims are not directed to the proposed abstract idea because the steps of the claims do not simply recite the steps for generically accomplishing management of a blind ETF, to the extent that, alone, could be a fundamental economic concept."). We are not persuaded of Examiner error.

Claim 1 requires monitoring market data, detecting that price data are lower than a threshold condition, opening a window for investors to redeem shares, and sending a notification of an option to redeem shares. *See* Appeal Br. 16 (Claims App.). Dependent claims further limit the type of price data, the threshold condition, the way of providing a notification, and the type of option, and provide additional steps of receiving a request, receiving a number of shares, transferring value, and redeeming a unit of shares. *See id.* at 16–18. These steps are all performed manually; no computer implementation is claimed. The purpose of managing the financial fund, in the manner claimed, is to "protect individual investors from being disadvantaged as compared to institutional investors when the market price of ETF shares run at a discount when compared to the NAV price." Spec. ¶ 5. Thus, the claimed method of managing a blind exchange traded fund is a fundamental economic practice and contractual relation similar to trading hindsight financial instruments (*In re Chorna*, 656 F. App'x. 1016, 1019–20 (Fed. Cir. 2016)), using a third party to mitigate settlement risk (*Alice*, 573 U.S. at 219–20), and hedging/protecting against the financial risk of price fluctuations (*Bilski*, 561 U.S at 611–12).

The Appellants argue that because the specific type of fund is not abstract, the claims are not directed to an abstract idea. *See* Appeal Br. 7–8. Even if EFTs "must obey specific rules" (*id.*), the claims merely recite steps of monitoring data, detecting a price, opening a window, receiving data, and sending a notification; none of these steps relies on or is changed by the type of fund or by specific rules. Further, the Specification provides that "[t]he method may equally be applied to other financial instruments, possibly those not yet created, where shares of the instrument are traded and are based on an underlying set of tradable securities or other assets" (Spec. ¶ 30; *see also id.* ¶ 5); thus, it is clear the type of fund does not affect the way the method is performed. And, even if the claimed process is limited to a particular type of fund or environment of the stock exchange, that limitation does not make the claimed monitoring, detecting, opening and sending of data not abstract. *See SAP Am. Inc. v. InvestPic LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018).

We find unpersuasive the Appellants' arguments that the claims are not abstract because the meaningful limitations regarding an EFT as a specific type of investment vehicle, detecting a trigger event, opening a window, and the type of conditions and price limit its practical application. *See* Appeal Br. 10–11, 13; Reply Br. 4. Rather, we determine that the claims do not "apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claims are more than a drafting effort designed to monopolize the judicial exception," i.e., the claims do not integrate the abstract idea, i.e., judicial exception, into a practical application. *See* 2019 Revised Guidance, 84 Fed. Reg. at 55.[5] As noted above, the claims do not require any computer implementation. Further, any computer envisioned for use in the method is a generic computer operating in its ordinary and conventional manner. *See* Spec. ¶¶ 26–29 (describing a generic computer). As also noted above, the method can be applicable to any type of financial instrument; that the claims recite an EFT does not alter the way the method is performed. Moreover, the claims do not gain subject matter eligibility solely because they are narrowed or limited to ETF and/or the stock market. *See, e.g.*, *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1321 (Fed. Cir. 216) ("A narrow claim directed to an abstract idea, however, is not necessarily patent-eligible"); *see also BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1287 (Fed. Cir. 2018) ("a claim is not patent eligible merely because it applies an abstract idea in a narrow way.").

Thus, we are not persuaded of error in the Examiner's determination that the claims are directed to an abstract idea.

The Second Step

Under the second step in the *Mayo*/*Alice* framework, we adopt and find supported the Examiner's determination that the claims' limitations, taken individually or as an ordered combination, do not amount to significantly more than the judicial exception. *See* Final Act. 2–6; Ans. 3–4.

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[5] We acknowledge that some of these considerations may be properly evaluated under Step 2 of *Alice* (Step 2B of Office guidance). Solely for purposes of maintaining consistent treatment within the Office, we evaluate them under Step 1 of *Alice* (Step 2A of Office guidance). *See* 2019 Revised Guidance, 84 Fed. Reg. at 55.

We are unpersuaded by the Appellants' arguments to the contrary. *See* Appeal Br. 10–14; Reply Br. 7–10.

We find unpersuasive the Appellants' arguments that the claims are patent-eligible under § 101 because they address the issue of the large size of creation units preventing individual investors from "tak[ing] advantage of the market price of the EFT being at a premium or at a discount like large institutional investors" by detecting a trigger event, and opening a small redemption window responsive to the trigger event. Appeal Br. 10; *see also* Reply Br. 7. The Appellants do not provide support or reasoning as to how the detecting or opening steps improve the issue technologically to be "the technical solution." Reply Br. 7. We note that the Specification does not provide details on how those steps are performed, technologically or by what algorithm. The Appellants rely on paragraphs 18 through 21 as support for these limitations. Appeal Br. 3. These paragraphs provide that "a trigger event is determined to have occurred when the monitored secondary market share price is discounted by more than a threshold amount for more than a threshold period of time, when compared with the NAV price over the same period of time" (Spec. ¶ 19), "[o]nce a trigger event has been detected, a small lot redemption window opens" (*id.* ¶ 20), "[w]hile the small lot redemption window is open, individual investors 102 are able to redeem shares in less than creation unit size batches at the NAV price rate that is normally only available to APs 106 in the primary market 110" (*id.* ¶ 21). The Specification, including the claims, simply recites the functional results to be achieved by any and all possible means, and "provides only a result-oriented solution with insufficient detail for how a computer accomplishes it.

Our law demands more." *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017).

We find unpersuasive the Appellants' argument that opening a small window "is not a 'well-understood, routine, and convention [sic] function,' since ETFs conventionally do not open small lot redemption windows." Appeal Br. 11 *see also* Reply Br. 7. It is not clear how an EFT opens a window, nor, as discussed above, how a window is opened. As claimed, opening a window can be done manually and can comprise simply allowing investors to redeem shares. The Appellants argue that the limitation of opening a window is not routine, well-known, and conventional because it is novel over the prior art. *See* Appeal Br. 13; Reply Br. 10 (arguing that the limitations are unconventional because the claims "include features not previously known in the field" as evidenced by the Examiner's withdrawal of the previous rejections). An abstract idea is not transformed into an inventive concept just because the prior art does not disclose or suggest it. *See Mayo*, 566 U.S. at 90; *cf.* Reply Br. 4. "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). Indeed, "[t]he '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." *Diehr*, 450 U.S. at 188–89.

We also find unpersuasive the Appellants' argument that the claims "as a whole, recite[] a method for detecting a trigger event that occurs when the market price of the ETF is lower than the NAV price, opening a small lot redemption window for a blind ETF, and notifying users of the option to redeem a small lot of shares" and thus "provide an inventive concept that improves on–and does not preempt–the alleged abstract idea of 'managing a blind exchange traded fund.'" Appeal Br. 12; *see also* Reply Br. 8–10. The Appellants do not provide adequate reasoning or argument why the claims as a whole are significantly more than the abstract idea. To the extent the Appellants argue that the claims do not pre-empt the field of managing funds, although the Supreme Court has described "the concern that drives this exclusionary principle [i.e., the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption," *see Alice*, 134 S. Ct. at 2354, characterizing pre-emption as a driving concern for patent eligibility is not the same as characterizing pre-emption as the sole test for patent eligibility. "The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability" and "[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2354). Although "preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Id.* The aforementioned concept is not sufficiently limiting so as to fall clearly on the side of patent-eligibility.

Finally we find unpersuasive the Appellants' argument that the claims are analogous to those at issue in *McRO, Inc. v. Bandai Namco Games Amer. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), because they "provide for an improvement to computer technology." Reply Br. 9. The Appellants do not point to anything in the claims that resembles the improvement to the technical field of computer animation that was not simply the use of a generic computer in *McRO*. The Appellants also do not direct our attention to anything in the Specification to indicate that the invention provides an improvement in the computer's technical functionality. As stated previously, the claims recite no technical element or details for implementing the steps. Any alleged improvement is of a business/financial nature, not a technological one.

Thus, we are not persuaded of error in the Examiner's determination that the limitations of the claims do not transform the claims into significantly more than the abstract idea.

Based on the foregoing, we are not persuaded that the Examiner erred in rejecting the claims under 35 U.S.C. § 101, and we sustain the rejection of claims 1–15.

DECISION

The Examiner's rejection of claims 1–15 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