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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
13/646,449 10/05/2012 Frederick S.M. Herz 102955.000185 6383

23377 7590 12/29/2017
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EXAMINER

AKINTOLA, OLABODE

ART UNIT PAPER NUMBER

3691

NOTIFICATION DATE DELIVERY MODE

12/29/2017

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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* FREDERICK S.M. HERZ, LYLE H. UNGAR,  
JASON M. EISNER, and WALTER PAUL LABYS

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Appeal 2016-003096  
Application 13/646,449  
Technology Center 3600

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Before MURRIEL E. CRAWFORD, HUBERT C. LORIN, and  
CYNTHIA L. MURPHY, *Administrative Patent Judges*.

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting claims 1–8. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

## BACKGROUND

Appellants' invention is directed to financial trading systems and more particularly the analysis of dynamically changing information sources such as on-line news feeds and user trading behavior in order to predict changes in stock prices or volatilities. Spec. ¶ 1.

Claim 1 is illustrative:

1. A method of predicting changes in price of a particular investment using trading software having a data analysis tool implementing natural language processing and an investment predictor implementing an investment prediction model, said trading software being executed by a processor so as to cause said processor to implement the steps of:

said processor using said data analysis tool to extract information from news media relating to said particular investment using said natural language processing to parse or pattern match on words in said news media to identify natural language text describing activities or announcements of said particular investment that is in or near sentences containing a name of said particular investment and to automatically fill templates with said natural language text;

said processor using a clustering algorithm to cluster at least some of said templates into groups that are statistically correlated with changes in price of said particular investment;

determining a statistical significance of said changes in price of said particular investment based on information in said clustered templates; and

said processor using said investment predictor to predict changes in price of said particular investment based on new information about said particular investment if information of the type included in the new information has in the past caused a statistically significant change in price in said particular investment.

Appellants appeal the following rejections:

Claims 1–8 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

## PRINCIPLES OF LAW

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 implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

In determining whether a claim falls within the excluded category of abstract ideas, we are guided in our analysis by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296–97 (2012)). In accordance with that framework, we first determine whether the claim is “directed to” a patent-ineligible abstract idea. *See Alice*, 134 S. Ct. at 2356 (“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.”); *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.”); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (“Analyzing respondents’ claims according to the above statements from our cases, we think that a physical and chemical process for molding precision synthetic rubber products falls within the § 101 categories of possibly patentable

subject matter.”); *Parker v. Flook*, 437 U.S. 584, 594–95 (1978) (“Respondent’s application simply provides a new and presumably better method for calculating alarm limit values.”); *Gottschalk v. Benson*, 409 U.S. 63, 64 (1972) (“They claimed a method for converting binary-coded decimal (BCD) numerals into pure binary numerals.”).

The patent-ineligible end of the spectrum includes fundamental economic practices, *Alice*, 134 S. Ct. at 2357; *Bilski*, 561 U.S. at 611; mathematical formulas, *Flook*, 437 U.S. at 594–95; and basic tools of scientific and technological work, *Benson*, 409 U.S. at 69. On the patent-eligible side of the spectrum are physical and chemical processes, such as curing rubber, *Diamond*, 450 U.S. at 182n.7, “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores,” and a process for manufacturing flour, *Benson*, 409 U.S. at 69.

If the claim is “directed to” a patent-ineligible abstract idea, we then consider the elements of the claim—both individually and as an ordered combination—to assess whether the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea. *Alice*, 134 S. Ct. at 2355. This is a search for an “inventive concept”—an element or combination of elements sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself. *Id.*

## ANALYSIS

The Examiner held that the claims were directed to a fundamental economic practice and/or predicting human activity. Final. Act. 2. In the Answer, the Examiner stated that the concept of predicting changes in price

of a particular investment is similar to the abstract idea of processing financial transaction data, managing risk during consumer transactions and mitigating settlement risk in a financial transaction. Ans. 2.

The Examiner also held that the other elements of the claim other than the abstract idea are no more than the mere instruction to implement the idea on a computer and/or are recitation of a generic computer to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry. Final Act. 2. The Examiner explains that the additional limitations of a processor for analyzing data, clustering into groups, determining statistical significance and predicting changes in price is not more than a generic computer performing its basic functions. Ans. 2. Largely, we agree.

We are not persuaded of error on the part of Examiner by Appellants' argument that the Examiner's rejection is inadequate because the Examiner failed to identify the fundamental economic practice and because the rejection is not supported by evidence. Regarding step 1 of *Alice*, we conclude that the Examiner's statement, which Appellants acknowledge they have read, is sufficient to place Appellants on notice as to step 1 of *Alice* as required under 35 U.S.C. § 132. The Examiner in the Answer specifically stated that the economic practice recited in the claims is predicting changes in price for a particular investment. Ans. 2. Further, Appellants' understanding of the Examiner's rejection on this point was manifested in the response to the Office Action in which the Appellants specifically addressed whether predicting changes in price of a particular investment is an abstract idea. App. Br. 6. In *In re Jung*, 637 F.3d 1356 (Fed. Cir. 2011) our reviewing court stated, in regard to the issue of prima facie notice,

particularly to anticipation but also generally, that there has never been a requirement for an Examiner to make an on-the-record claim construction of every term in every rejected claim and to explain every possible difference between the prior art and the claimed invention in order to make out a prima facie rejection. 637 F.3d at 1363. The Federal Circuit further stated:

“[Section 132] does not mandate that in order to establish prima facie anticipation, the PTO must explicitly preempt every possible response to a section 102 rejection. Section 132 merely ensures that an applicant at least be informed of the broad statutory basis for the rejection of his claims, so that he may determine what the issues are on which he can or should produce evidence.” *Chester*, 906 F.2d at 1578 (internal citation omitted). As discussed above, all that is required of the office to meet its prima facie burden of production is to set forth the statutory basis of the rejection and the reference or references relied upon in a sufficiently articulate and informative manner as to meet the notice requirement of § 132. As the statute itself instructs, the examiner must “notify the applicant,” “stating the reasons for such rejection,” “together with such information and references as may be useful in judging the propriety of continuing prosecution of his application.” 35 U.S.C. § 132.

*Id.* (alteration in original) (emphasis added)

We conclude the Examiner’s rejection was more than sufficient to meet this burden as to *Alice* step 1.

In regard to the reliance by the Appellants on *Ex parte Poisson*, Appeal 2012-011084 (PTAB Feb. 27, 2015) in regard to the initial burden of

the Examiner, as recognized by the Appellants on page 6 in the Reply, the decision in is not precedential and therefore is not controlling on this panel of the board.

We are not persuaded of error on the part of the Examiner by Appellants' argument that predicting changes in price of a particular investment is an abstract idea because the claims are directed to a particular practical application of a novel technique for making such a prediction. Limiting the use of the abstract idea to a particular technological environment does not make the claims any less abstract. *See Alice Corp.*, 134 S. Ct. at 2358. Nor is the recitation of a practical application for an abstract idea sufficient 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.”).

We are not persuaded of error on the part of the Examiner by Appellants' argument that the claims are directed to a “particular machine.” We agree with the Examiner that the portion of the claim in addition to the abstract idea are functions performed by a generic computer.

We are not persuaded of error on the part of the Examiner by Appellants' argument that the claims are directed to techniques and tools that are “not well understood” and involves sophisticated computer processing techniques. In our view, these techniques are part of the abstract idea itself. In addition, the techniques recited do not improve the operation of the computer itself. As the Federal Circuit has made clear, “the basic character of a process claim drawn to an abstract idea is not changed by



claiming only its performance by computers, or by claiming the process embodied in program instructions on a computer readable medium.” See *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d at 1375.

We are not persuaded of error on the part of the Examiner by Appellants’ argument that the claims are directed to significantly more as evidenced by the Examiner’s allowance of the claims over prior art in the Notice of Allowance mailed on June 23, 2014. Appellants misapprehend the controlling precedent. Although the second step in the *Alice/Mayo* 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 [ineligible concept] itself.’” *Alice*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo*, 132 S. Ct. at 1294). A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. See *Mayo*, 132 S. Ct. at 1304.

Appellants’ argument that the claims do not preempt any abstract idea is also not persuasive. “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); see also *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (“[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”), *cert. denied*, 136 S. Ct. 701 (2015) (mem.). And, “[w]here a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they

are in this case, preemption concerns are fully addressed and made moot.”  
*Ariosa*, 788 F.3d at 1379

Appellants argue in the Reply that the Examiner improperly asserted a New Ground of Rejection in the Answer. To the extent that Appellants believe there are changes in the statement of the rejection in the Answer from what was stated in the Final Rejection, we note that any request to seek review of the examiner's failure to designate a rejection as a new ground of rejection in an Examiner's Answer must be by way of a petition to the Director under 37 C.F.R. § 1.181 filed within two months from the entry of the examiner's answer and before the filing of any reply brief. 37 C.F.R. § 41.40(a). This is therefore a petitionable matter that we will not resolve.

In view of the foregoing, we will sustain the Examiner's rejection of claim 1. We will also sustain the rejection as it is directed to claims 2-8 because the Appellants have not argued the separate eligibility of these claims.

#### DECISION

The rejection of the Examiner is affirmed.

#### TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1) (2009).

#### ORDER

AFFIRMED