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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JASON ROTH

Appeal 2017-000207
Application 13/004,785[1]
Technology Center 3600

Before CYNTHIA L. MURPHY, BRADLEY B. BAYAT, and ALYSSA A. FINAMORE, *Administrative Patent Judges*.

BAYAT, *Administrative Patent Judge*.

DECISION ON APPEAL

Jason Roth (Appellant) seeks our review under 35 U.S.C. § 134(a) of the final rejection of claims 1–3, 5–9, 11–17, 19–23, 25–29, 31, and 32 under 35 U.S.C. §101 as being directed to non-statutory subject matter. Appeal Brief 11 ("App. Br.," filed May 16, 2016). We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] Appellant identifies the real party in interest as "LogicEase Solutions Inc." App. Br. 3. Claims 33–37 are withdrawn from consideration; claims 4, 10, 18, 24, and 30 have been cancelled. *Id.*

STATEMENT OF THE CASE

Claimed Subject Matter

Appellant's "invention relate[s] generally to systems and methods for assessing metrics of loans, financial instruments and/or financial entities using one or more data processing systems." Spec. ¶ 2.

Claims 1, 7, 13, 21, and 27 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the subject matter on appeal.

> 1. A data processing system for computing a performance metric of a loan under consideration, the data processing system comprising:
>
> one or more processors coupled to one or more memory resources, the one or more processors configured to:
>
> retrieve data about a set of reference loans selected from a plurality of baseline loans stored in the one or more memory resources, the set of reference loans selected based on one or more characteristics of the loan under consideration, the one or more characteristics including expected time-frames of application, origination, funding or closing of the loan under consideration, types of property securing the loan under consideration, geographic location of one or more borrowers of the loan under consideration, or geographic location of one or more properties securing the loan under consideration;
>
> select at least one attribute of at least one reference loan from the retrieved data of the set of reference loans;

compute at least one score value corresponding to the at least one reference loan using data corresponding to the at least one selected attribute, wherein the at least one score value corresponding to the at least one reference loan includes a probability figure that an event will occur with respect to the at least one reference loan, the event relevant to an operational risk associated with the at least one reference loan;

compute at least one score value for the loan under consideration using the at least one computed score value corresponding to the at least one reference loan, wherein each of the at least one score value for the loan under consideration is a quantitative indicator for the performance metric of the loan under consideration;

compute the performance metric of the loan under consideration using the at least one score value computed for the loan under consideration, the performance metric quantifying an operational risk associated with the loan under consideration by being predictive of whether the loan under consideration is in compliance with at least one government or market requirement, given the probability figure that the event will occur; and

assess an expected performance of the loan under consideration based on the performance metric.

ANALYSIS

Non-Statutory Subject Matter

At the outset, Appellant stipulates "the pending claims stand or fall together" as a group based on arguments presented with respect to claim 1. App. Br. 12; Reply Brief 2 ("Reply Br.," filed Sept. 28, 2016). We select claim 1 as the representative claim for this group, and the remaining claims 2, 3, 5–9, 11–17, 19–23, 25–29, 31, and 32 stand or fall with claim 1.

In determining whether the claims on appeal are directed to patent-ineligible subject matter, the Examiner applied the now common two-step test introduced in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012) and further explained by the Supreme Court in *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014). The first step in that analysis is to determine whether the claim at issue is directed to a patent-ineligible concept such as an abstract idea. *Alice*, 134 S. Ct. at 2355. If so, the inquiry proceeds to step two to look at the claim for "something more" by "examin[ing] 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 2354, 2357 (quoting *Mayo*, 132 S. Ct. at 1294, 1298). This inventive concept must do more than simply recite "well-understood, routine, conventional activity." *Mayo*, 132 S. Ct. at 1298.

Alice Step One

Applying the framework in *Alice*, and as the first step of that analysis, the Examiner determined "[t]he claims are directed to the abstract idea of creating [a] loan contract after loan data analysis." Final Action 3 ("Final Act.," mailed July 15, 2015). In response to Appellant's argument that the

claimed subject matter is not directed to a contract (*see* App. Br. 13–14), the Examiner modified the abstract idea as being "the concept of the loan data analysis." Answer 14 ("Ans.," mailed July 28, 2016). The Examiner explained that "[w]hile the claims do not explicitly recite 'loan data analysis,' the concept of 'loan data analysis,' is described" in the performance of the recited claim steps. *Id.* at 4. According to the Examiner:

> The evaluation of performance as recited in the claim is a concept relating to mitigating risks similar to the fundamental economic practices found by the courts to be abstract ideas (e.g., hedging in *In re Bilski,* mitigating settlement risk in *In re Alice)* as well as mathematical calculations as recited in the claim is a concept similar to the mathematical relationships/formulas found by the courts to be abstract ideas (e.g. computing a price for the sale of a fixed income asset and generating a financial analysis output *(Freddie Mac),* and calculating the difference between local and average data values *(In re Abele).*

Id. at 5.

We are unpersuaded of reversible error and find that the Examiner's articulations of the abstract idea are related, but the dispute calls for a detailed explanation into what the claims are "directed to." *See* Reply Br. 3–4.

The "directed to" inquiry cannot simply ask whether the claims involve a patent-ineligible concept, because "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *See Mayo*, 132 S. Ct. at 1293. Rather, the "directed to" inquiry applies a stage-one filter to claims, considered in light of the Specification, based on whether "their character as a whole is directed to excluded subject matter." *Internet Patents Corp. v. Active Network, Inc.*,

790 F.3d 1343, 1346 (Fed. Cir. 2015); *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016).

Representative claim 1 is drawn to a "data processing system for computing a performance metric of a loan under consideration . . . [to] assess an expected performance of the loan under consideration based on the [computed] performance metric." *See* Claim 1 *supra*. With respect to computer-enabled claimed subject matter, it is helpful to determine whether "the claims at issue . . . can readily be understood as simply adding conventional computer components to well-known business practices" or not. *Enfish*, 822 F.3d at 1338; *see also Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016). In *Enfish*, for example, the court noted that "[s]oftware can make non-abstract improvements to computer technology just as hardware improvements can." *Enfish*, 822 F.3d at 1335. The court put the question as being "whether the focus of the claims is on [a] specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool." *Id.* at 1335–36. The court found that the "plain focus of the claims" there was on "an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity." *Id.* at 1336. Thus, the question being, whether the claim as a whole "focus[es] on a specific means or method that improves the relevant technology" or is "directed to a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery." *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016).

Claim 1 recites a data processing system comprising "one or more processors coupled to one or more memory resources." The "one or more processors configured to" (1) "retrieve" data about reference loans stored in the one or more memory resources; (2) "select" an attribute of a reference loan from the retrieved data; (3) "compute" a score value of the reference loan corresponding to the selected attribute; (4) "compute" a score value for the loan under consideration using the computed score in (3); (5) "compute" the performance metric of the loan under consideration using the computed score in (4); and (6) "assess" an expected performance of the loan based on the computed score in (5).

Generally, "retriev[ing]," "select[ing]," "comput[ing]," "assess[ing]" or "evaluating" are operations that generic computers are capable of performing. *Cf. Alice*, 134 S. Ct. at 2360 (stating "[n]early every computer will include a 'communications controller' and 'data storage unit' capable of performing the basic calculation, storage, and transmission functions required"). Also the type of information processed (e.g., loan data) is not patentably distinguishing. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) ("[C]ollecting information, including when limited to particular content (which does not change its character as information), [is] within the realm of abstract ideas."); *see also Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014).

Reading claim 1 as a whole, the above recited operations seek to achieve a result: to determine the likelihood of loss on a particular asset or loan—the concept of risk assessment. The focus of the claim is evaluating and assessing financial risk to help determine if a loan under consideration is

worthwhile by comparing it to one or more baseline loans. Thus, the focus here is not on improving any technology, but on using generic computer operations, in which a computer is used in its ordinary capacity, for predicting and assessing loan risk, such as risk of default. *Cf. In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016) (explaining that the claims' focus "was not on an improved telephone unit or an improved server").

"The 'abstract idea' step of the inquiry calls upon us to look at 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." *Enfish*, 822 F.3d at 1335 (quoting *Internet Patents Corp.*, 790 F.3d at 1346). In that regard, the Background section of the Specification discusses the problem:

> Individuals and other entities that are generally involved with the origination of loans often evaluate on a case by case basis whether to become involved in the origination of one or more particular loans. To make that decision, the individual or entity may want to assess the risks and benefits associated with the origination of the particular loan or loans by determining one or more corresponding performance metrics.
>
> Loans associated with an individual or other entity can pose operational risks to that individual or other entity, including financial and regulatory risks. Consequently, individuals and other entities contemplating entering into a business transaction with that individual or entity may need to assess the operational risks that the loan or loans may pose to the individual or entity. To make that assessment, it may be helpful to employ one or more performance metrics for the respective loan or loans associated with that individual or entity.
>
> To assist with the assessment of such operational impacts, there is a need for a system that can assess performance metrics

> for one or more loans, and/or for individuals or entities that may be associated with one or more loans.

Spec. ¶¶ 3, 4, and 8, respectively.

According to the Specification, the inventor solved this problem by assessing a performance metric (i.e., risk of default of the loan, expected financial loss or gain, risk of fraud) of a loan under consideration by having the assessment performed using a data processing system. *See* Spec. ¶¶ 9–14. The advance lies in *automating* risk assessments for lending by assessing the expected or predicted performance of a loan based on computing performance metrics for the loan. In other words, the claimed advance over the prior art lies in automating an act that could be performed and has long been performed in the field of finance by a human, e.g., mentally, using pen and paper, and/or manually, without the use of a computer or any other machine. Indeed, the concept of assessing and managing loan risk is an economic and business practice long prevalent in the lending industry and our financial system, and as such, squarely within the realm of an abstract ideas. *See Int'l Sec. Exch., LLC v. Chicago Bd. Options Exch., Inc.,* No. CBM2013-00049 (PTAB March 2, 2015), *aff'd*, *Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch.*, LLC, 640 F. App'x 986 (mem) (Fed. Cir. 2016) (nonprecedential) (Rule 36)) (The claims were directed to the abstract idea of "risk management.").

Therefore, we see no reversible error in the Examiner's analysis and articulation of the abstract idea, discussed above.[2]

[2] "An abstract idea can generally be described at different levels of abstraction." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240–41 (Fed. Cir. 2016)

Alice Step Two

Step two is "a 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.'" *Alice*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo*, 132 S. Ct. at 1294). The relevant inquiry here is whether "additional substantive limitations . . . narrow, confine, or otherwise tie down the claim so that, in practical terms, it does not cover the full abstract idea itself." *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344–45 (Fed. Cir. 2013) (internal quotations and citation omitted). The Supreme Court in *Alice* cautioned that merely limiting the use of an abstract idea "to a particular technological environment" or implementing the abstract idea on a "wholly generic computer" is not sufficient as an additional feature to provide "practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself." *Alice*, 134 S. Ct. at 2358 (citations omitted).

Applying the framework in *Alice*, and as the second step of that analysis, the Examiner found:

> The additional elements or combination of elements in the claims other than the abstract idea per se amount to no more than mere instructions to implement the idea on a computer. Viewed as a whole, these additional claim elements do not provide meaningful limitations to transform the abstract idea into a patent eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself.

Final Act. 3. According to the Examiner:

> The claim as a whole, does not amount to significantly more than the abstract idea itself because: the claim does not affect [sic] an improvement to another technology or technical

> field; the claim does not amount to an improvement to the functioning of a computer itself; and, the claim does not move beyond a general link of an abstract idea to a particular technological environment.
>
> Accordingly, the Examiner concludes that there are no meaningful limitations in the claim that transform the judicial exception into a patent eligible application such that the claim amounts to significantly more than the judicial exception itself.

Id. at 4.

Appellant argues that "the elements of Claim 1 are not routine and conventional and go beyond conventional activities previously known to the industry. For example, the claimed system can observe pattern changes in risk due to combinations of particular loans identified as being similar (e.g. 'a set of reference loans')." App. Br. 16. Appellant asserts that the computation of the predictive performance metric is based on a number of intermediate steps that involve a probability figure that an event will occur. *Id.* In contrast to traditional, manual or procedural risk analysis, Appellant argues that "the claimed system can observe pattern changes in risk due to combinations of myriad particular values of similar loans." *Id.* at 17.

However, claim 1 does not recite any specialized hardware, and Appellant has not apprised us of any. Indeed, paragraph 40 of the Specification discloses that the claimed data processing system

> includes any desktop computer, laptop, netbook, electronic notebook, ultra mobile personal computer (UMPC), client computing device, server computer or server system (whether configured as a single server or as a bank of multiple servers), cloud computing system or platform, web appliance, network router, switch or bridge, mobile telephone, personal digital assistant, personal digital organizer, or any other computer system, device, component or machine capable of processing

> electronic data. In various implementations, a data processing system could act as a client, as a server, or as both a client and a server.

Thus, the Specification indicates that the data processing system can be built using a general purpose computer including "computer executable instructions (whether in source code or object code), and any other computer executable instructions may be stored on any such memory medium." Spec. ¶ 47. The use of a generic processor coupled to any memory medium configured to perform the recited steps does not confer patent eligibility, similar to the claims at issue in *Alice*. *See Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1334 (Fed. Cir. 2012) ("In considering patent eligibility under § 101, one must focus on the claims.").

Claim 1 uses a generic processor to perform "well-understood, routine, conventional activit[ies] previously known to the industry. *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 S. Ct. at 1294); *see Mayo*, 132 S. Ct. at 1300 (explaining that "simply appending conventional steps, specified at a high level of generality, to . . . abstract ideas cannot make those . . . ideas patentable"). The activities Appellant argues are not routine or conventional involve the comparison of data (baseline loans to loans under consideration to assess similarities) (*see* Spec. ¶ 36), and computation of score values and metrics—which are the most basic functions performed by a generic computer. At its most basic, a "computer" is "an automatic electronic device for performing mathematical or logical operations." Oxford English Dictionary 640 (2d ed. 1989). The use of a computer in an otherwise patent-ineligible process for no more than its most basic functions—making calculations or computations, fails to circumvent the prohibition against patenting abstract ideas and mental processes. We are not apprised of any

claimed element for accomplishing the claimed solution that is other than what was generically known for performing those conventional functions. We do not see, and Appellant does not adequately explain to us, what particular assertedly inventive technology for performing the recited functions is required for achieving the claimed result. *See Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1057 (Fed. Cir. 2017) ("[T]he claims do not provide details as to any non-conventional software for enhancing the financing process."); *see Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017) ("Our law demands more" than claim language that "provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it."); *Elec. Power Grp.*, 830 F.3d 1350, 1354 (explaining that claims are directed to an abstract idea where they do not recite "any particular assertedly inventive technology for performing [conventional] functions").

To the extent that Appellant maintains that the elements of the claim necessarily amount to "significantly more" than the abstract idea because the claimed system is allegedly patentable over the prior art, Appellant misapprehends the controlling precedent. *See* App. Br. 17–18; Reply Br. 6. Although the second step in the *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 [ineligible concept] itself.'" *Alice*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo*, 132 S. Ct. at 1294). In other words, a novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent ineligible. *See Mayo*, 132 S. Ct. at 1304

(rejecting the suggestion that Sections 102, 103, and 112 might perform the appropriate screening function and noting that in *Mayo* such an approach "would make the 'law of nature' exception . . . a dead letter"); *see also Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016) ("[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility."). Thus, an abstract idea does not transform into an inventive concept just because the Examiner has not found prior art that discloses or suggests it. Even if a claimed concept is "[g]roundbreaking, innovative, or even brilliant" does not by "itself satisfy the § 101 inquiry." *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117 (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." *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981).

Contrary to Appellant's contention (App. Br. 18), neither the problem nor the solution here are rooted in computer technology. Unlike the claims at issue in cases such as *DDR Holdings LLC v Hotels.com LP.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (claims at issue being "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks") and *Enfish* (claims at issue being "directed to a specific implementation of a solution to a problem in the software arts"), Appellant merely addresses a business problem through the use of generic computer implementation that does not add any meaningful limitations to transform the abstract idea.

Appellant's argument regarding preemption is, likewise, unpersuasive. *See* Reply Br. 3. The Supreme Court has explained that "the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the abstract idea] to a particular technological environment." *Alice*, 134 S. Ct. at 2358. Where claims are deemed to recite only patent-ineligible subject matter under the two-step *Alice* analysis, as here, "preemption concerns are fully addressed and made moot." *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.), *cert. denied*, 136 S. Ct. 701 (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.").

Accordingly, we reach the same conclusion as the Examiner, namely that the claims on appeal do not pass muster under 35 U.S.C § 101. Therefore, we sustain the rejection of independent claim 1, and claims 2, 3, 5–9, 11–17, 19–23, 25–29, 31, and 32, which fall with claim 1.

DECISION

The Examiner's rejection of claims 1–3, 5–9, 11–17, 19–23, 25–29, 31, and 32 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).

AFFIRMED