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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RONALD COLEMAN

Appeal 2016-001998
Application 13/709,422
Technology Center 3600

Before ANTON W. FETTING, CYNTHIA L. MURPHY, and
AMEE A. SHAH, *Administrative Patent Judges*

SHAH, *Administrative Patent Judge*.

DECISION ON APPEAL¹

The Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner’s final decision rejecting claims 19–24, 36, and 37 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Throughout this Opinion, we refer to the Appellant’s Appeal Brief (“Appeal Br.,” filed June 29, 2015), Reply Brief (“Reply Br.,” filed Nov. 30, 2015), and Specification (“Spec.,” filed Dec. 10, 2012), and to the Examiner’s Answer (“Ans.,” mailed Sept. 29, 2015) and Final Office Action (“Final Act.,” mailed Dec. 5, 2014).

² According to the Appellant, the real party in interest is “Citicorp Credit Services, Inc.” Appeal Br. 1.

STATEMENT OF THE CASE

The Appellant's invention "relates to a system and method for measuring the financial risks associated with trading portfolios" and "for assuring the integrity of data used to evaluate financial risks and/or exposures." Spec. 1, ll. 6–9.

Claim 19 (Appeal Br. 7 (Claims App.)) is the only independent claim on appeal, is representative of the subject matter on appeal, and is reproduced below:

19. A computerized system for identifying and minimizing sources of error in a risk assessment system (RAS), comprising:

a computer server including a processor configured to execute a plurality of computer modules including:

a Bayesian network computer module configured to: (a) receive, via an application program interface (API) a plurality of variables of the RAS and an initial probability for each of the variables and (b) electronically represent implications between and among the plurality of variables;

a first computer module configured to access the Bayesian network computer module via the API to retrieve beliefs based on the implications between and among the plurality of variables;

a hypothesizer computer module configured to receive the beliefs from the first computer module and interpret the beliefs;

an evidence extraction component computer module configured to receive prospects based on the interpretation of the beliefs from the hypothesizer computer module and convert the prospects to factoids based on additional data received; and

a weigh-in computer module configured to receive the factoids from the evidence extraction component

computer module module [sic] and weigh the factoids to evaluate the initial probability for each of the variables.

ANALYSIS

Under 35 U.S.C. § 101, a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” The Supreme Court has “long held that this provision contains an important implicit exception: Laws 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 *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)).

The Supreme Court in *Alice* reiterated the two-step framework, set forth previously in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 78–79 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are *directed to* one of those patent-ineligible concepts.” *Id.* (citing *Mayo*, 566 U.S. at 76–79) (emphasis added). If so, the second step is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether the additional elements “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 79, 78). 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.* (alteration in original)

(quoting *Mayo*, 566 U.S. at 72–73). The Court acknowledged in *Mayo*, that “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. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea, and merely invoke generic processes and machinery. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

Turning to the first step of the *Alice* framework, the Examiner determines that the claims are directed to “identifying and minimizing sources of error in RAS using software executable by a processor,” an abstract idea without any inventive technology. Final Act. 2; *see also* Spec. 1, ll. 7–9 (“the present invention relates to a system and method for assuring the integrity of data used to evaluate financial risks and/or exposures”). The Appellant does not contest the Examiner’s characterization of what the claims are directed to. Appeal Br. 3.

Rather, the Appellant contends that claims are not directed to an abstract idea because they “recite[] features that firmly root the claimed solution in computer technology, thereby clearly removing it from the realm of abstract ideas.” Appeal Br. 4 (citing to *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014); *see also* Reply Br. 6. We disagree.

In *DDR Holdings*, the Federal Circuit determined that, although the patent claims at issue involved conventional computers and the Internet, the claims addressed the problem of retaining website visitors who, if adhering to the routine, conventional functioning of Internet hyperlink protocol,

would be transported instantly away from a host's website after "clicking" on an advertisement and activating a hyperlink. *DDR Holdings*, 773 F.3d at 1257. The Federal Circuit, thus, held that the claims were directed to statutory subject matter because they claim a solution "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *Id.*

Here, no such technological advance is evident. Unlike the situation in *DDR Holdings*, the Appellant does not identify or direct attention to where in the Specification discusses what problem particular to computer technology, networks, and/or the Internet that the claims allegedly overcomes. The Specification provides that the invention overcomes the existing problems associated with inspecting large amounts of complex data (*see* Spec. 4, ll. 11–16) that is "an enormous distraction and drain of resources that could otherwise be focused on more important business" (*id.* at 5, ll. 3–5), and thus, should be automated to save time and improve productivity and quality (*id.* at 5, ll. 5–7). As such, the claims do not address problems specifically arising from computer network technology, but rather generally and broadly recite limitations using a server, interface, and modules operating in their normal capacities. *See DDR Holdings*, 773 F.3d at 1258–59 (citing *Ultramerical Inc. v. Hulu, LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014)); *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1094–95 (Fed. Cir. 2016) (finding claims directed to collecting and analyzing information to detect misuse merely implement an old practice in a new environment). The claims merely employ a generic computer server with generic modules programmed to perform generic computer functions, i.e., receiving, representing, accessing, retrieving, and

receiving data, to implement the abstract idea. *See Alice*, 134 S. Ct. at 2360. The claims are still directed to an abstract idea despite reciting “special purpose computer limitations.” Appeal Br. 3. The programming of a purpose of the computer does not focus on a specific improvement in how the computer could carry out its basic functions of receiving, representing, retrieving, interpreting, converting, weighing, and evaluating data. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016); *see also EON Corp. IP Holdings LLC v. AT & T Mobility LLC*, 785 F.3d 616, 623 (Fed. Cir. 2015) (“A microprocessor or general purpose computer lends sufficient structure only to basic functions of a microprocessor. All other computer-implemented functions require disclosure of an algorithm.”).

Rather than being similar to the claims in *DDR Holdings* (*see* Appeal Br. 3–4), the claims here are akin to the claims in *Bilski v. Kappos*, 561 U.S. 593, 599 (2010), which were directed to hedging risk in commodities transactions using a mathematical formula and well-known analysis techniques. There, the Court held that the “concept of hedging, described in claim 1 and reduced to a mathematical formula in claim 4, is an unpatentable abstract idea, just like the algorithms at issue in *Benson* and *Flook*” in that “[the] claims attempt to patent the use of [an] abstract idea of hedging risk in the energy market and then instruct the use of well-known random analysis techniques to help establish some of the inputs into the equation.” *Id.* at 611–12 (citing *Gottschalk v. Benson*, 409 U.S. 63 (1972); *Parker v. Flook*, 437 U.S. 584 (1978)) Similarly here, the claims are directed to identifying and minimizing error in risk assessments by using known Bayesian analysis techniques for receiving variables and data and representing implications, retrieving data based on the implications, receiving and interpreting the data,

converting the data, and weighing and evaluating the data — activities squarely within the realm of abstract ideas as being a building block of human ingenuity and a fundamental economic practice. *See Digitech Image Techs., LLC v. Elec. for Imaging, Inc.*, 758 F.3d 1344, 1354 (Fed. Cir. 2014) (determining that process of “organizing this information into a new form” and that “employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible”); *Elec. Power Grp.*, 830 F.3d at 1353–54 (characterizing collecting information, analyzing information by steps people go through in their minds, or by mathematical algorithms, and presenting the results of collecting and analyzing information, without more, as matters within the realm of abstract ideas).

Turning to the second step of the *Alice* framework, we find supported the Examiner’s findings that the steps and functions of the claims, considered individually and as an ordered combination, are routine, conventional, well-understood functions of a generic computer, do not improve another technology or technical field, and do not improve the computer itself. *See* Final Act. 2; Ans. 2–3. The Specification supports this view in describing generic “black box” servers (Spec. 7, ll. 22–28) and a general computer with software modules programmed to perform the functions (*id.* at 27, ll. 12–18). We note that the claims do not recite how, e.g., by what algorithm, the representations, beliefs, interpretations, and probabilities are determined or calculated. *See TDE Petroleum Data Sols., Inc., v. AKM Enter., Inc.*, 657 F. App’x 991, 993 (Fed. Cir. 2016) (“As we discussed at greater length in *Electric Power*, the claims of the '812 patent recite the *what* of the invention, but none of the *how* that is necessary to turn

the abstract idea into a patent-eligible application.” (citing *Elec. Power*, 830 F.3d at 1353)), *cert. denied*, 137 S. Ct. 1230 (2017); *see also Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (“As the district court observed, claim 1 contains no restriction on how the result is accomplished.”). Rather, the claims recite receiving, representing, accessing, converting, weighing, and evaluating data using existing, generic technology. *See* Appeal Br. 7 (Claims App.).

We disagree with the Appellant’s contention that the claims are directed to patent-eligible subject matter because they “recite the foregoing computer technology limitations that amount to a technological improvement in the functioning of the computer itself” by “implement[ing] a new technical approach to minimize sources of error and thereby reduce computer modeling time in a risk assessment system.” Appeal Br. 5. The “technical approach” involves the “special-purpose computer modules of claim 19 [that] result in the technical improvement of the computer itself that results in error minimization and a reduction in required processing resources.” *Id.*

A general purpose computer programmed to perform conventional functions does not amount to an inventive concept such that the claims are significantly more than the abstract idea. *See EON Corp.*, 785 F.3d at 623, *and Alice*, 134 S. Ct. at 2357–60 (determining that applying an abstract idea, such as an algorithm, on a general purpose computer is not enough to transform a patent-ineligible abstract idea into a patent-eligible invention). The Appellant does not provide adequate evidence that the functions are not routine, well-understood, and conventional to a generic computer, or that the devices or processor themselves are technologically improved.

Programming devices to perform routine functions in a more particular manner is not a technological improvement to the device. And there is no further specification of particular technology for performing the steps. *See Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1263 (Fed. Cir. 2016); *see also Enfish*, 822 F.3d. at 1336 (focusing on whether the claim is “an improvement to [the] computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity”). The computer implementation here is purely conventional and performs basic functions. *See Alice*, 134 S. Ct. at 2359–60.

Further, “relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.” *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2359); *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015) (“claiming the improved speed or efficiency inherent with applying the abstract idea on a computer [does not] provide a sufficient inventive concept”); *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“[T]he fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.”).

We are also not persuaded by the Appellant’s argument that the pending claims are patent-eligible because “the claims do not ‘tie up’ every implementation of ‘identifying and minimizing source of error in a risk assessment system using software executable by a processor.’” Appeal Br. 6; *see also id.* at 5; Reply Br. 7–8. 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 Appellant’s argument that the Examiner’s rejection is in error because the Examiner does not identify “at least one concept that the courts have identified as an abstract idea.” Reply Br. 6; *see also id.* at 7. As discussed above, the claims here are akin to, for example, the claims in *Bilski*, 561 U.S. at 599. *See Amdocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (“Instead of a definition [for what an ‘abstract idea’ encompasses], then, 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.”). We are aware of no controlling authority

that requires the Examiner to provide case law to support a determination that a claim is directed to an abstract idea.³

In rejecting the pending claims under § 101, the Examiner analyzes the claims using the *Mayo/Alice* two-step framework (see Final Act. 2) and thus, set forth the statutory basis of the rejection in a sufficiently articulate and informative manner as to meet the notice requirement of § 132 as to why the claims are patent-ineligible. *Alice*, 134 S. Ct. at 2355–57; see also *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990) (holding that 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 Appellant does not contend that the Examiner’s § 101 rejection was not understood or that the Examiner’s rejection, otherwise, fails to satisfy the notice requirements of § 132. Instead, the Appellant’s understanding of the rejection is clearly manifested by the Appellant’s responses as set forth in the Briefs.

Thus, we are not persuaded that the Examiner erred in rejecting claims 19–24, 36, and 37 under 35 U.S.C. § 101, and we sustain the Examiner’s rejection.

³ We note that Office guidelines are not legal requirements. See *Intellectual Ventures I LLC v. Erie Indem. Co.*, No. 2017-1147, 2017 WL 5041460, at *4 (Fed. Cir. Nov. 3, 2017); *In re Fisher*, 421 F.3d 1365, 1372 (Fed. Cir. 2005) (“The MPEP and Guidelines ‘are not binding on this court.’”); MPEP, Foreword (“The Manual does not have the force of law or the force of the rules in Title 37 of the Code of Federal Regulations.”).

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DECISION

The Examiner's rejection of claims 19–24, 36, and 37 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