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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICKEY IQBAL and FRANCES F. WAND

Appeal 2018-006317
Application 11/746,782
Technology Center 3600

Before NINA L. MEDLOCK, TARA L. HUTCHINGS, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEDLOCK, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1, 3, 6, 8, 9, 13–18, and 20–28. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the term “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Our decision references Appellant's Appeal Brief (“Appeal Br.,” filed June 9, 2017) and Reply Brief (“Reply Br.,” filed June 1, 2018), and the Examiner's Answer (“Ans.,” mailed April 3, 2018) and Final Office Action (“Final Act.,” mailed January 18, 2017). Appellant identifies International Business Machines Corporation as the real party in interest (Appeal Br. 1).

CLAIMED INVENTION

Appellant's claimed invention relates to "a method, system[,] and computer program product for determining an optimal information technology refresh analysis solution or analysis result for renewing and/or updating and/or revising an existing information technology infrastructure solution used in a business" (Spec. 1).

Claims 1, 9, and 15 are the independent claims on appeal. Claim 1, reproduced below with bracketed notations added, is illustrative of the claimed subject matter:

1. A method of determining an optimal upgrade to an information technology infrastructure, the method comprising the steps of:

[(a)] a computer system receiving, and storing, in a data repository, a plurality of business rules and a plurality of business-technical data for the information technology infrastructure used in a business;

[(b)] the computer system receiving a request to determine an upgrade to hardware and software included in the information technology infrastructure;

[(c)] based on the received request to determine the upgrade, the computer system updating the plurality of business-technical data stored in the data repository for the information technology infrastructure;

[(d)] the computer system receiving specifications of a plurality of priority levels of the plurality of updated business-technical data, respectively, the priority levels based on one or more business-technical requirements; and

[(e)] the computer system determining the upgrade to the hardware and software included in the information technology infrastructure by:

[(e1)] the computer system generating a decision hierarchy specifying a plurality of upgrades to the information technology infrastructure so that each upgrade satisfies the one or more business-technical requirements;

[(e2)] based on sub-paths of the decision hierarchy, the computer system estimating a plurality of operational costs for implementing in the business the plurality of upgrades, wherein estimating the plurality of operational costs includes estimating an operational cost of the upgrade to the hardware and software by adding a transition cost of the upgrade to the hardware and software and a steady state cost of the upgrade to the hardware and software, the transition cost including a cost of initially setting up an implementation of the upgrade to the hardware and software, and the steady state cost including a cost of operating the upgrade to the hardware and software over a life cycle of the business;

[(e3)] the computer system determining the estimated operational cost of the upgrade to the hardware and software is lower than any other estimated operational cost included in the plurality of operational costs; and

[(e4)] the computer system selecting the upgrade to the hardware and software from among the plurality of upgrades based on the estimated operational cost of the upgrade to the hardware and software being lower than any other estimated operational cost.

REJECTION

Claims 1, 3, 6, 8, 9, 13–18, and 20–28 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

ANALYSIS

Appellant argues the pending claims as a group (Appeal Br. 9–46). We select independent claim 1 as representative. The remaining claims stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Under 35 U.S.C. § 101, 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 an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (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 Corp.*, 573 U.S. at 217. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “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*, 566 U.S. at 79, 78). This 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.’” *Id.* at 217–18 (alteration in original).

In rejecting the pending claims under 35 U.S.C. § 101, the Examiner determined that independent claims 1, 9, and 15 are directed to “determining an optimal level for updating technology and calculating associated costs with the optimal level for updates,” *i.e.*, to a fundamental economic practice, and, therefore, to an abstract idea similar to other concepts that the courts have held abstract (Final Act. 3–5). The Examiner also determined that claims 1, 9, and 15 do not include additional elements that are sufficient to

amount to significantly more than the abstract idea itself (*id.* at 5–7) and that the dependent claims do not overcome the deficiencies set forth with respect to the independent claims (*id.* at 7–9).

After Appellant’s briefs were filed and the Examiner’s Answer mailed, the U.S. Patent and Trademark Office (the “USPTO”) published revised guidance for use by USPTO personnel in evaluating subject matter eligibility under 35 U.S.C. § 101. 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50, 57 (Jan. 7, 2019) (the “2019 Revised Guidance”). That guidance revised the USPTO’s examination procedure with respect to the first step of the *Mayo/Alice* framework by (1) “[p]roviding groupings of subject matter that [are] considered an abstract idea”; and (2) clarifying that a claim is not “directed to” a judicial exception if the judicial exception is integrated into a practical application of that exception. *Id.* at 50. The 2019 Revised Guidance, by its terms, applies to all applications, and to all patents resulting from applications, filed before, on, or after January 7, 2019. *Id.*^{2,3}

² The 2019 Revised Guidance supersedes MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) § 2106.04(II) and also supersedes all versions of the USPTO’s “Eligibility Quick Reference Sheet Identifying Abstract Ideas.” *See* 2019 Revised Guidance, 84 Fed. Reg. at 51 (“Eligibility-related guidance issued prior to the Ninth Edition, R-08.2017, of the MPEP (published Jan. 2018) should not be relied upon.”). Accordingly, Appellant’s arguments challenging the sufficiency of the Examiner’s rejection will not be addressed to the extent those arguments are based on now superseded USPTO guidance.

³ The USPTO issued an update on October 17, 2019 (the “October 2019 Update: Subject Matter Eligibility,” available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf) clarifying the 2019 Revised Guidance in response to comments solicited from the public.

Step One of the Mayo/Alice Framework (2019 Revised Guidance, Step 2A)

The first step in the *Mayo/Alice* framework, as mentioned above, is to determine whether the claims at issue are “directed to” a patent-ineligible concept, e.g., an abstract idea. *Alice Corp.*, 573 U.S. at 217. This first step, as set forth in the 2019 Revised Guidance (i.e., Step 2A), is a two-prong test; in Step 2A, Prong One, we look to whether the claim recites a judicial exception, e.g., one of the following three groupings of abstract ideas: (1) mathematical concepts; (2) certain methods of organizing human activity, e.g., fundamental economic principles or practices, commercial or legal interactions; and (3) mental processes. 2019 Revised Guidance, 84 Fed. Reg. at 54. If so, we next consider whether the claim includes additional elements, beyond the judicial exception, that “integrate the [judicial] exception into a practical application,” i.e., that apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception (“Step 2A, Prong Two”). *Id.* at 54–55. Only if the claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application do we conclude that the claim is “directed to” the judicial exception, e.g., an abstract idea. *Id.*

We are not persuaded by Appellant’s arguments that the Examiner erred in determining that claim 1 is directed to an abstract idea (Appeal Br. 12–26). The Federal Circuit has explained that “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.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d

1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36. Here, it is clear from the Specification (including the claim language) that the claims focus on an abstract idea, and not on any improvement to technology and/or a technical field.

The Specification is titled “METHOD, SYSTEM AND PROGRAM PRODUCT FOR DETERMINING AN OPTIMAL INFORMATION TECHNOLOGY REFRESH SOLUTION AND ASSOCIATED COSTS,” and discloses, in the Background section, that “[i]n today’s business environment,” where “an organization and/or business has to invest considerable resources in developing and/or maintaining an information technology solution or infrastructure for operating a business,” obtaining “a reasonably accurate and up-front estimate of the costs associated with developing a new replacement and/or updating an existing information technology infrastructure” can provide the organization with a competitive advantage in the proposal development and approval process, and prevent costly price overruns and implementation delays (Spec. 1–2). The Specification, thus, describes that “there is a need for an efficient way to replace and/or update and/or revise an existing information technology solution used in a business” (*id.* at 2).

The claimed invention is intended to address this need by providing “a method of using a computing system to determine an optimal upgrade to an information technology infrastructure for implementation in a business” (*id.*). Claim 1, thus, recites a method of determining an optimal upgrade to an information technology infrastructure comprising: (1) “receiving, and

storing . . . a plurality of business rules and a plurality of business-technical data for the information technology infrastructure used in a business” (step (a)); (2) updating the business rules and business-technical data in response to receipt of a request to determine an upgrade to hardware and software included in the information technology infrastructure, and receiving specifications of priority levels to be applied to the updated business-technical data, i.e.,

the computer system receiving a request to determine an upgrade to hardware and software included in the information technology infrastructure;

based on the received request to determine the upgrade, the computer system updating the plurality of business-technical data stored in the data repository for the information technology infrastructure; [and]

the computer system receiving specifications of a plurality of priority levels of the plurality of updated business-technical data, respectively, the priority levels based on one or more business-technical requirements

(steps (b) through (d)); and (3) determining the upgrade to the hardware and software included in the information technology infrastructure by estimating the operational costs of each of a plurality of upgrades that satisfy the business-technical requirements, and selecting the upgrade with the lowest estimated operational cost, i.e.,

the computer system determining the upgrade to the hardware and software included in the information technology infrastructure by:

the computer system generating a decision hierarchy specifying a plurality of upgrades to the information technology infrastructure so that each upgrade satisfies the one or more business-technical requirements;

based on sub-paths of the decision hierarchy, the computer system estimating a plurality of operational costs for implementing in the business the plurality of

upgrades, wherein estimating the plurality of operational costs includes estimating an operational cost of the upgrade to the hardware and software by adding a transition cost of the upgrade to the hardware and software and a steady state cost of the upgrade to the hardware and software, the transition cost including a cost of initially setting up an implementation of the upgrade to the hardware and software, and the steady state cost including a cost of operating the upgrade to the hardware and software over a life cycle of the business;

the computer system determining the estimated operational cost of the upgrade to the hardware and software is lower than any other estimated operational cost included in the plurality of operational costs; and

the computer system selecting the upgrade to the hardware and software from among the plurality of upgrades based on the estimated operational cost of the upgrade to the hardware and software being lower than any other estimated operational cost

(step (e)). These limitations, when given their broadest reasonable interpretation, recite determining an optimal upgrade to an information technology infrastructure by calculating an estimated operational cost of implementing each of a plurality of alternative technology infrastructure upgrades (i.e., by adding the up-front setup cost, referred to as the “transition cost,” of implementing the update to the cost of operating the update over the lifecycle of the business, referred to as the “steady state cost”), and selecting the upgrade with the lowest estimated operational cost. Simply put, claim 1 recites a mathematical calculation, which is a mathematical process and, therefore, an abstract idea. Estimating operational costs also is a fundamental economic practice, i.e., an abstract idea. *See* 2019 Revised Guidance, 84 Fed. Reg. at 52; *see also SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018) (holding that claims to “a series of

mathematical calculations based on selected information” are directed to an abstract idea).

Having concluded that claim 1 recites a judicial exception, i.e., an abstract idea (Step 2A, Prong One), we next consider whether the claim recites additional elements that integrate the judicial exception into a practical application (Step 2A, Prong Two).

The only additional element recited in claim 1, beyond the abstract idea, is the “computer system” that performs the claimed method — an element that, as the Examiner observed, is recited as a generic computer component (Final Act. 6–7), and described as such in the written disclosure (*see, e.g.*, Spec. 30). We find no indication in the Specification that the operations recited in claim 1 require any specialized computer hardware or other inventive computer components, i.e., a particular machine, invoke any assertedly inventive programming, or that the claimed invention is implemented using other than generic computer components to perform generic computer functions. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”).

We also find no indication in the Specification that the claimed invention effects a transformation or reduction of a particular article to a different state or thing. Nor do we find anything of record, short of attorney argument, that attributes an improvement in technology and/or a technical field to the claimed invention or that otherwise indicates that the claimed

invention integrates the abstract idea into a “practical application,” as that phrase is used in the 2019 Revised Guidance.⁴

We are not persuaded, as an initial matter, by Appellant’s argument that the Examiner has failed to establish a prima facie case of patent ineligibility (Appeal Br. 17–18, 26–30). The Federal Circuit has observed repeatedly that “the prima facie case is merely a procedural device that enables an appropriate shift of the burden of production.” *Hyatt v. Dudas*, 492 F.3d 1365, 1369 (Fed. Cir. 2007) (citing *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992)). The court has, thus, held that the USPTO carries its procedural burden of establishing a prima facie case when its rejection satisfies the requirements of 35 U.S.C. § 132 by notifying the applicant 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.” *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (alteration in original). Thus, what is required of the Office is that it sets forth the statutory basis of the rejection in a sufficiently articulate and informative manner as to meet the notice requirement of § 132. *Id.*; *see also 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.”).

⁴ The 2019 Revised Guidance references MPEP § 2106.05(a)–(c) and (e) in describing the considerations that are indicative that an additional element or combination of elements integrates the judicial exception, e.g., the abstract idea, into a practical application. 2019 Revised Guidance, 84 Fed. Reg. at 55. If the recited judicial exception is integrated into a practical application, as determined under one or more of these MPEP sections, the claim is not “directed to” the judicial exception.

Here, as described above, the Examiner notified Appellant that the claims are directed to “determining an optimal level for updating technology and calculating associated costs with the optimal level for updates,” i.e., to an abstract idea similar to other concepts that the courts have held abstract, and that the claims do not include additional elements that are sufficient to amount to significantly more than the abstract idea itself (Final Act. 3–9). The Examiner, thus, set forth the statutory basis of the rejection in a sufficiently articulate and informative manner as to meet the notice requirement of 35 U.S.C. § 132. And we find that, in doing so, the Examiner established a *prima facie* case of patent ineligibility.

We also are not persuaded that there is any parallel between claim 1 and the patent-eligible claims at issue in *Enfish* (Appeal Br. 18–22). There, the Federal Circuit rejected a § 101 challenge at the step one stage of the *Mayo/Alice* analysis because the claims focused on “a specific type of data structure[, i.e., a self-referential table for a computer database,] designed to improve the way a computer stores and retrieves data in memory.” *Enfish*, 822 F.3d at 1339. The court emphasized that the claims were not directed to any form of storing tabular data, but were instead directed to a *self-referential table* for a computer database. *Id.* at 1337. And the court explained that the table stored information related to each column in rows of the table, such that new columns could be added by simply creating new rows. *Id.* at 1338. Based on the “plain focus of the claims,” the court, thus, held that the claims were directed to “a specific improvement to the way computers operate, embodied in the self-referential table,” and, as such, were more than a mere abstract idea. *Id.* at 1336.

Referencing claim 1, Appellant notes here that the claim recites “‘determining an optimal upgrade to an information technology infrastructure,’ which includes ‘determining the upgrade to the . . . software included in the information technology infrastructure’” (Appeal Br. 18–19 (emphasis omitted)). And Appellant argues, “[b]ased on the foregoing, the features recited in claim 1 that are related to the upgrade to the software included in the information technology infrastructure are plainly focused on an improvement to a software-based infrastructure, which on its face, is an improvement to computer functionality” (*id.* at 19; *see also* Reply Br. 8). Yet, there is no evidence of record here that the claimed method uses a data structure, like the self-referential table in *Enfish*, to improve a computer’s functionality or efficiency, or that the claimed method otherwise changes the way the computer operates, e.g., that it changes the way a computer stores and retrieves data in memory, as in *Enfish*.

Further, to the extent Appellant maintains that claim 1 is patent eligible because “[l]ike *Enfish*, [Appellant’s] claims recite a **particular way** of ‘determining the upgrade to the . . . software included in the information technology infrastructure’” (Reply Br. 7), we note that a *specific* abstract idea is still an abstract idea. For example, “cases have not distinguished among different laws of nature according to whether or not the principles they embody are sufficiently narrow.” *Mayo*, 566 U.S. at 88–89 (citing *Parker v. Flook*, 437 U.S. 584 (1978) (holding narrow mathematical formula unpatentable)).

Importantly too, there is a fundamental difference between computer functionality improvements, on the one hand, and uses of existing computers as tools to perform a particular task, on the other — a distinction that the

Federal Circuit applied in *Enfish*, in rejecting a § 101 challenge at the first stage of the *Mayo/Alice* framework because the claims at issue focused on a specific type of data structure, i.e., the self-referential table, and not merely on asserted advances in uses to which existing computer capabilities could be put. *See Enfish*, 822 F.3d at 1335–36. Here, to the extent the claimed invention provides an improvement, that improvement does not concern an improvement to computer capabilities, but instead relates to an alleged improvement in determining an optimal upgrade to an information technology infrastructure — a process in which a computer is used as a tool in its ordinary capacity.

Appellant further argues that the claims “recite improvements to the technology or technical field of information technology infrastructure by ‘determining the upgrade to the hardware . . . included in the information technology infrastructure’ (claim 1), which results in an upgrade or improvement to hardware” and that “[a]n improvement to hardware is, on its face, is [sic] an improvement to technology or a technical field” (Appeal Br. 37–39; *see also id.* at 22 (asserting that “determin[ing] an ‘upgrade . . . to software’ . . . , on its face, must be an improvement to computer software”)). But, Appellant does not explain how, and we fail to see how, determining the optimal upgrade to an existing information technology infrastructure, based on the operational cost of the upgrade as compared to the operational cost of other alternatives, amounts to a hardware and/or software improvement.

An upgrade to the hardware and/or software included in an information technology infrastructure, once implemented, may well improve the operation of the affected hardware and/or software. But, Appellant does

not claim to have invented a hardware or software upgrade; instead, claim 1 recites a method for determining the optimal, i.e., the most cost-effective, upgrade among a plurality of existing alternatives. The claimed invention, when considered in light of the Specification, thus, clearly appears focused on achieving a commercial objective, i.e., a competitive business advantage in the proposal development and approval process (*see, e.g.*, Spec. 1–2 (describing that “a reasonably accurate and up-front estimate of the costs associated with developing a new replacement and/or updating an existing information technology infrastructure can provide an organization and/or business with a competitive advantage in the proposal development and approval process, and also prevent costly price overruns and implementation delays”)), and not on any claimed means for achieving that goal that improves technology.

Finally, to the extent Appellant maintains that the claims are patent eligible because they pose no risk of preemption, we note that preemption is not the sole test for patent eligibility (Appeal Br. 40–44; *see also* Reply Br. 16–17). Although the Supreme Court has described “the concern that drives [the exclusion of abstract ideas from patent-eligible subject matter] as one of pre-emption,” *Alice Corp.*, 573 U.S. at 216, characterizing preemption as a driving concern for patent eligibility is not the same as characterizing preemption 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 Corp.*, 573 U.S. at 216). “[P]reemption may signal patent

ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

We conclude, for the reasons outlined above, that claim 1 recites a mathematical process and/or a fundamental economic practice, i.e., an abstract idea, and that the additional element recited in the claim, i.e., the “computer system” is no more than a generic computer component used as a tool to perform the recited abstract idea. As such, it does not integrate the abstract idea into a practical application. *See Alice Corp.*, 573 U.S. at 223–24 (“[W]holly generic computer implementation is not generally the sort of ‘additional featur[e]’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.’” (quoting *Mayo*, 566 U.S. at 77)). Accordingly, we agree with the Examiner that claim 1 is directed to an abstract idea.

Step Two of the Mayo/Alice Framework (2019 Revised Guidance, Step 2B)

Having determined under step one of the *Mayo/Alice* framework that claim 1 is directed to an abstract idea, we next consider under Step 2B of the 2019 Revised Guidance, the second step of the *Mayo/Alice* framework, whether claim 1 adds specific limitations beyond the judicial exception that are not “well-understood, routine, conventional” activity in the field, or simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

Appellant asserts that even if the pending claims are directed to an abstract idea, the claims are nonetheless patent eligible because the claims add a specific limitation other than what is well-understood, routine and conventional in the field of determining an optimal upgrade to an

information technology infrastructure (Appeal Br. 31–37). Quoting substantially the entirety of claim 1, Appellant, thus, ostensibly maintains that claim 1 is patent eligible because this combination of features is not well-understood, routine and conventional in the field of determining an optimal upgrade to an information technology infrastructure (*id.* at 32–35; *see also* Reply Br. 4–5).

That argument is not persuasive at least because “the relevant inquiry is not whether the claimed invention as a whole is unconventional or non-routine.” *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). Instead, the question under step two of the *Mayo/Alice* framework (i.e., step 2B) is whether the claim includes additional elements, i.e., elements other than the abstract idea itself, that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice Corp.*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79, 78). *See also Mayo*, 566 U.S. at 72–73 (requiring that “a process that focuses upon the use of a natural law also contain *other* elements or a combination of elements, sometimes referred to as an ‘inventive concept,’ sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself” (emphasis added)).

The Examiner determined here, and we agree, that the only element recited in claim 1 beyond the abstract idea is the computer system, i.e., a generic computer component used to perform generic computer functions (Final Act. 6–7) — a determination amply supported by, and fully consistent with the Specification (*see, e.g.*, Spec. 30).⁵ Appellant cannot reasonably

⁵ The Office’s April 19, 2018 Memorandum to the Examining Corps from Deputy Commissioner for Patent Examination Policy, Robert W. Bahr,

contend, nor does Appellant, that there is a genuine issue of material fact regarding whether the operation of the computer system is well-understood, routine, or conventional, where, as here, there is nothing in the Specification to indicate that the operations recited in claim 1 require any specialized hardware or inventive computer components or that the claimed invention is implemented using other than generic computer components to perform generic computer functions, e.g., receiving, storing, and processing information. Indeed, the Federal Circuit, in accordance with *Alice*, has “repeatedly recognized the absence of a genuine dispute as to eligibility” where claims have been defended as involving an inventive concept based “merely on the idea of using existing computers or the Internet to carry out conventional processes, with no alteration of computer functionality.” *Berkheimer v. HP, Inc.*, 890 F.3d 1369, 1373 (Fed. Cir. 2018) (Moore, J., concurring) (internal citations omitted); *see also BSG Tech*, 899 F.3d at 1291 (“BSG Tech does not argue that other, non-abstract features of the claimed inventions, alone or in combination, are not well-understood, routine and conventional database structures and activities. Accordingly, the district court did not err in determining that the asserted claims lack an inventive concept.”).

entitled, Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*), available at <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF>, expressly directs that an examiner may support the position that an additional element (or combination of elements) is well-understood, routine or conventional with “[a] citation to an express statement in the specification . . . that demonstrates the well-understood, routine, conventional nature of the additional element(s)” (*id.* at 3).

Appellant also misapprehends the controlling precedent to the extent Appellant maintains that claim 1 is patent eligible, i.e., that the recited “features in combination must include unconventional activity,” because the claim is allegedly novel and/or non-obvious (Appeal Br. 35 (“[A] review of the cited art finds that the cited art is silent as to the aforementioned features in combination and that therefore the aforementioned features in combination were not previously engaged in by those in the field.”)); *see also id.* (“Further, the 35 U.S.C. § 103 rejection that the Examiner had applied previously to the present application has not been sustained by the Patent Trial and Appeal Board . . . , which is additional support for the aforementioned features describing non-conventional and non-routine steps.”)). Neither a finding of novelty nor a non-obviousness determination automatically leads to the conclusion that the claimed subject matter is patent eligible. Although the second step in the *Mayo/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 Corp.*, 573 U.S. at 217–18 (alteration in original). “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). A novel and non-obvious claim directed to a purely abstract idea is, nonetheless, patent ineligible. *See Mayo*, 566 U.S. at 90; *see also Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981) (“The ‘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.”).

We are not persuaded, on the present record, that the Examiner erred in rejecting independent claim 1 under 35 U.S.C. § 101. Therefore, we sustain the Examiner’s rejection of claim 1, and claims 3, 6, 8, 9, 13–18, and 20–28, which fall with claim 1.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3, 6, 8, 9, 13–18, 20–28	101	Eligibility	1, 3, 6, 8, 9, 13–18, 20–28	

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)(iv).

AFFIRMED