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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte ANTHONY JAMES GRICHNIK

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Appeal 2020-001823
Application 14/684,229
Technology Center 3600

———————

Before JOSEPH L. DIXON, DAVID M. KOHUT, and
JON M. JURGOVAN, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the
Examiner's decision to reject claims 1–20.[2] We have jurisdiction under
35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the word "Appellant" to refer to "applicant" as defined in
37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as
Caterpillar Inc. (Appeal Br. 1.)

[2] Throughout this Decision we refer to the Final Rejection mailed August 3,
2018 ("Final Act."), the Appeal Brief filed February 1, 2019 ("Appeal Br."),
the Examiner's Answer mailed November 12, 2019 ("Ans."), and the Reply
Brief filed January 9, 2020 ("Reply Br.").

INVENTION

The present invention relates to a system and method for "reducing oscillation in a supply chain including a plurality of supply chain entities [including sources and customers]" by determining network parameters for the supply chain for supplying product lines from sources to customers, transforming the network parameters from a real space to a neutral space according to a common basis, and determining a neutral-space optimized network model for the supply chain based on neutral-space representations of the network parameters. (Spec. ¶ 8.)

Independent claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1.   A system for reducing oscillation in a supply chain including a plurality of supply chain entities, the supply chain entities including a plurality of sources and a plurality of customers, the system comprising:
>
>   a memory configured to store instructions;
>
>   one or more input/output devices configured to receive user inputs and generate a user interface; and
>
>   a processor configured to receive the instructions from the memory and execute the instructions, the instructions causing the processor to:
>
>   determine a plurality of network parameters for the supply chain for supplying a plurality of product lines from the plurality of sources to the plurality of customers;
>
>   transform the network parameters from a real space to a neutral space to generate a plurality of neutral-space representations of the network parameters, the neutral-space representations of the network parameters being measured in units that are common across different product lines and different supply chain entities;

determine a neutral-space optimized network model for the supply chain based on the neutral-space representations of the network parameters;

determine real-space supply-demand relationships based on the neutral-space optimized network model; and

configure the supply chain based on the real-space supply-demand relationships.

(Appeal Br. 18–23 (Claims Appendix).)

REJECTION

Claims 1–20 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. (Final Act. 5–7.)

ANALYSIS

Patent eligibility is a question of law that is reviewable *de novo*. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). Accordingly, we review the Examiner's § 101 determinations concerning patent eligibility under this standard.

Patentable subject matter is defined by 35 U.S.C. § 101, as follows:

[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (brackets in original) (citing *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

In determining whether a claim falls within an excluded category, we

are guided by the Supreme Court's two-step framework, described in *Mayo* and *Alice*. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217–18 (2014) (citing *Mayo*, 566 U.S. at 75–77). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 218–19 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and, thus, patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diehr*, 450 U.S. at 191); "tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that "a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 187; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having

said that, the Supreme Court also indicated that a claim "seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (internal citation omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

The PTO published revised guidance on the application of § 101. USPTO's Memorandum, 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50 (January 7, 2019) ("Revised Guidance").[3] Under that guidance, we first look to whether the claim

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[3] The Office issued a further memorandum on October 17, 2019 ("October 2019 Memorandum") clarifying guidance of the January 2019 Memorandum in response to received public comments. *See* https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update. pdf. Moreover, "[a]ll USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." Revised Guidance at 51; *see also* October 2019 Memorandum at 1.

recites:

> (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
> (2) additional elements that integrate the judicial exception into a practical application (*see* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 2106.05(a)–(c), (e)–(h) (9th ed., Rev. 08.2017, 2018)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

> (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)); or
> (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See Revised Guidance.

Appellant argues independent claims 1–20 together, submitting arguments for independent claim 1. (*See* Appeal Br. 7, 10, 12–15; Reply Br. 2–8.) As a result, we select independent claim 1 as the representative claim for the group and address Appellant's arguments thereto. *See* 37 C.F.R. § 41.37(c)(1)(iv).

<u>*Step 1 of the Revised Guidance*</u>

Independent claim 1, as a "system" claim, recites one of the enumerated categories of statutory subject matter in 35 U.S.C. § 101, namely, a machine. The issue before us is whether this claim is directed to a judicial exception without significantly more.

Alice/Mayo—Step 1 (Abstract Idea)
Step 2A–Prongs 1 and 2 identified in the Revised Guidance

Step 2A, Prong 1 of the Revised Guidance

The first Prong of Step 2A under the Revised Guidance is to determine whether the claim recites a judicial exception including (a) mathematical concepts; (b) certain methods of organizing human activity; and (c) mental processes. Revised Guidance, 84 Fed. Reg. at 51–52.

> The Examiner determines that

> claims 1, 8, and 16 are directed to determining parameters for a supply chain, transforming the parameters from real space to neutral space, determining a neutral space optimized supply chain model, determining real space supply-demand relationships based on the model, and configuring the supply chain based on those relationships,

which "are merely mental processes" as "[o]ne could determine parameters, convert them from one form to another universal form, determine a model, determine relationships, and configure a supply chain all on their own without any assistance from technology." (Final Act. 5; Ans. 3–4.) The Examiner also finds claim 1 is directed to "a practice similar to those found by the courts to be abstract [such as in *Electric Power Group*]." (Final Act. 5–6 (citing *Electric Power Grp.*, *LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016)).)

Appellant argues claim 1 does not recite a mental process because "the claimed method is clearly performed by a processor." (Appeal Br. 8–9.) Appellant further argues claim 1 is not directed to a mental process because

the steps of "transform the network parameters [for the supply chain] from a real space to a neutral space," "determine a neutral-space optimized network model," and "determine real-space supply-demand relationships based on the neutral-space optimized network model" cannot be "practically" performed in the human mind, at least because a processor is required to process the large volume of data (i.e., network parameters) in order to perform these steps.

(Reply Br. 5.)

Appellant's arguments do not persuade us that the claims do not recite an abstract idea, and we concur with the Examiner's conclusion that the claims recite an abstract idea. (Final Act. 5–6; Ans. 3–4.)

Under its broadest reasonable interpretation, claim 1 recites an abstract mental process of modelling supply and demand parameters for a supply chain. In particular, claim 1 recites an abstract mental process of modelling parameters for a supply chain by: *collecting/gathering information* (using data of "supply chain entities including a plurality of sources and a plurality of customers"), *analyzing the information* (claimed "determine a plurality of network parameters for the supply chain for supplying a plurality of product lines from the plurality of sources to the plurality of customers," "transform the network parameters from a real space to a neutral space to generate a plurality of neutral-space representations of the network parameters" with "the neutral-space representations of the network parameters being measured in units that are common across different product lines and different supply chain entities," "determine a neutral-space optimized network model for the supply chain based on the neutral-space representations of the network parameters," and "determine real-space supply-demand relationships based on the neutral-space

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optimized network model"), *and providing results of the collection and analysis* ("configure the supply chain based on the real-space supply-demand relationships"). (*See* Appeal Br. 18 (claim 1).)

That is, although claim 1 recites "instructions causing the processor" to perform operations for reducing oscillation in a supply chain, the underlying operations recited in the claim are acts that could be performed mentally and by pen and paper, without the use of a computer or any other machine. (Ans. 4.) For example, a person could (i) manually determine/collect network parameters (e.g., customer demand, supplier data, and production rates, *see* Spec. ¶¶ 64–65), (ii) manually determine (e.g., with pen and paper) transformations of network parameters from a real space to a unit-neutral space (using unit-less or "per unit" representations, *see* Spec. ¶ 62) to obtain neutral-space representations and a neutral-space optimized network model for the supply chain, and (iii) manually determine (e.g., with pen and paper) real-space supply-demand relationships to assess supply chain parameters such as, e.g., production capacities based on customer demands. That is, "[a] user can calculate the math [for the claimed modeling steps] and make comparisons of available supply and forecasted demand with only pen to paper actions and/or mental calculation." (Final Act. 6.) Our reviewing court has concluded that mental processes include similar concepts of collecting, manipulating, and providing, data. *See Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017) (the Federal Circuit held "the concept of . . . collecting data, . . . recognizing certain data within the collected data set, and . . . storing that recognized data in a memory" ineligible); and *Electric Power Grp.*, 830 F.3d at 1353 (merely selecting information, by content or

source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes). Claim 1's "processor" automates actions performable manually with pen and paper; however, mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) ("That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.").

We additionally note Appellant's argument—that the claimed steps "cannot be 'practically' performed in the human mind, at least because *a processor is required to process the large volume of data (i.e., network parameters) in order to perform these steps*"—is not commensurate with the scope of claim 1. (*See* Reply Br. 5 (emphasis added).) Claim 1 does not require processing a "large volume" of data or network parameters, as Appellant argues. (*Id.*) Claim 1 recites processing *two or more* ("a plurality of") network parameters for supplying *two or more* ("a plurality of") product lines from *two or more* ("plurality of") sources to *two or more* ("plurality of") customers. (*See* Appeal Br. 18 (claim 1).) Thus, claim 1's steps recite data processing operations that can be performed manually, using pen and paper.

Thus, Appellant's arguments that claim 1 recites elements that cannot be characterized as mental steps or performed mentally, and that the claim recites more than an abstract idea, have not persuaded us the Examiner erred in finding the claim also recites an abstract idea. We now turn to Step 2A, Prong 2, of the Revised Guidance to determine whether the abstract idea is

integrated into a practical application. *See* Revised Guidance, 84 Fed. Reg. at 54–55.

<div align="center">Step 2A, Prong 2 of the Revised Guidance</div>

Under *Revised Step 2A, Prong Two* of the Revised Guidance, we discern no additional element (or combination of elements) recited in Appellant's claim 1 that may have integrated the judicial exception into a practical application. *See* Revised Guidance, 84 Fed. Reg. at 54–55. For example, Appellant's claimed additional elements (e.g., a "memory," "one or more input/output devices," a "user interface," and a "processor") do not: (1) improve the functioning of a computer or other technology; (2) are not applied with any particular machine (except for generic computing elements); (3) do not effect a transformation of a particular article to a different state; and (4) are not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception. (*See* MPEP §§ 2106.05(a)–(c), (e)–(h); Ans. 4–5.) Rather, Appellant's claimed computing elements are configured to perform real-world functions and operations that automate actions and operations that can be performed in the human mind and with pen and paper, adding nothing of substance to the underlying abstract idea. (Ans. 4–5.) It is clear from the claims and the Specification (describing a "[p]rocessor 210 [that] may include one or more processing devices, such as one or more microprocessors from the Pentium™ or Xeon™ family . . . or any other type of processors," "a volatile or non-volatile, magnetic, semiconductor, tape, optical, removable, nonremovable, or other type of storage device," and an "I/O device 240

[that] may include one or more display devices, such as monitors, or other peripheral devices . . . or any other suitable type of I/O device"), the claimed computing elements require no improvements to computer technology. (*See* Spec. ¶¶ 29–30, 38.) Claim 1 does not recite a specific improvement to the way computers operate; rather, the broad claim language recites generic "processor" and computer implemented "instructions," and generic automation of operations performable in the human mind or with pen and paper. Thus, the claim's limitations are **not** indicative of "integration into a practical application." *See* Revised Guidance, 84 Fed. Reg. at 54–55. Rather, the memory, input/output devices, and processor are readily available computing elements using their already available basic functions as tools in executing the claimed operations for configuring a supply chain. *See SAP Am., Inc. v. InvestPic LLC*, 898 F.3d 1161 (Fed. Cir. 2018).

Appellant argues claim 1 is not directed to an abstract idea but directed to a practical application (as required by the Revised Guidance) for the reasons that: (i) "configuring a supply chain in the claimed manner does not constitute 'merely linking the alleged abstract concept to a technological concept' nor do the combination of elements recited in the claims seek to monopolize practice of the alleged abstract concept" (Appeal Br. 9–10); and (ii) "the claimed limitations reflect an improvement to the technology of supply chain optimization" by "considering **multiple product lines** simultaneously," thereby reducing oscillation in the supply chain (Reply Br. 6; Appeal Br. 11–13).

We remain unpersuaded by Appellant's arguments, for the following reasons. Appellant explains the claims address a problem of "conventional supply chain optimization techniques [that] tend to configure each

manufacturing facility to provide **one product line** exclusively," such that "a supply chain which supplies multiple product lines and which is configured using the conventional optimization techniques [is] almost bound to have oscillation due to the geographical misalignment between the production capacities and customer demands." (Reply Br. 6 (citing Spec. ¶¶ 85–86); Appeal Br. 11.) Appellant asserts the claimed limitations substantially reduce such oscillation by "considering **multiple product lines** simultaneously." (Reply Br. 6 (citing Spec. ¶ 87); *see also* Appeal Br. 11– 13.) We are unpersuaded because the broad language of claim 1 does not evidence differences from conventional supply chain optimization techniques—for example, claim 1 does not preclude configuring "each manufacturing facility to provide **one product line** exclusively," and does not require resolving for "geographical misalignment between the production capacities and customer demands" as Appellant argues (*see id.*; Ans. 5.) Appellant argues claim 1 "manages production capabilities by considering **multiple product lines** simultaneously," but the broad claim language merely requires determining network parameters "*for supplying a plurality of product lines*" and transforming network parameters to generate neutral-space representations measured in "*units that are common across different product lines.*" (*See* Appeal Br. 11, 18 (claim 1 (emphases added)).) The broadly claimed "neutral-space representations," "neutral-space optimized network model," and "transformation" (of network parameters), and the broadly recited references to "product lines" in claim 1, fail to capture how the claim would reduce supply chain oscillation "by considering **multiple product lines** simultaneously." (*See* Reply Br. 6.)

Appellant also argues "[o]scillation *in the neutral-space optimized network model* is *substantially reduced*," however, claim 1 does not require or specify such characteristics or effects of the network model (or of its application). (Appeal Br. 12 (emphases added).) Thus, Appellant's argument fails because the argument is not commensurate with the scope of claim 1. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) ("[A]ppellant's arguments fail from the outset because . . . they are not based on limitations appearing in the claims."); *see also In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998) ("[The] proffered facts . . . are not commensurate with the claim scope and are therefore unpersuasive."). The broad language of claim 1 merely specifies a neutral-space optimized network model *based on* neutral-space representations of network parameters, real-space supply-demand relationships *based on* the neutral-space optimized network model, and a supply chain configured *based on* the real-space supply-demand relationships.

We are therefore unpersuaded by Appellant's arguments that claim 1 provides "non-abstract improvements to the technology of reducing oscillation in a supply chain." (Appeal Br. 13; *see also* Appeal Br. 10 (arguing that "configuring a supply chain in the claimed manner does not constitute 'merely linking the alleged abstract concept to a technological concept'"), Reply Br. 8 (arguing a "technical improvement").) The claimed computing infrastructure is "merely a simple implementation of computerization or automation to otherwise abstract steps." (Ans. 4.) Claim 1's computer components are used in an ordinary manner, and for their ordinary functions, and the claim does not evidence any improvement to those components themselves. *See* MPEP § 2106.05(a). Claim 1 merely

uses the computer components to store, provide, and analyze data. Hence, instead of a technical improvement, the claimed determining, transforming, and configuring improve modelling of supply chain parameters using operations readily performable in the human mind. (Ans. 5–6.) Such an improvement does not integrate the abstract idea into a practical application. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) ("[R]elying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.").

Appellant also argues the "claims do not preempt all ways of performing the alleged abstract idea." (Appeal Br. 15; *see also* Reply Br. 8.) While claim 1 may not entirely preempt the abstract idea recited therein, claim 1 poses significant preemption concerns because of its broad limitations. (*See* Ans. 7.) For example, the claimed "neutral-space representations," "neutral-space optimized network model," transformation (of network parameters), and determination (of real-space supply-demand relationships) encompass broad classes and combinations of models, representations, and supply-demand relationships. As the *McRO* court explicitly recognized, "the absence of complete preemption does not demonstrate patent eligibility." (*See McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1315 (Fed. Cir. 2016) (quoting *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015)); Ans. 7.) Furthermore, "[w]here a patent's claims are deemed only to disclose patent ineligible subject matter" under the *Alice/Mayo* framework, "preemption concerns are fully addressed and made moot." *Ariosa*, 788 F.3d at 1379.

For these reasons, we determine representative claim 1, and grouped claims 2–20, **do not integrate a judicial exception into a practical**

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application, and are directed to a judicial exception (a mental process of modelling parameters for a supply chain) identified as an abstract idea in the Revised Guidance. Therefore, we proceed to *Step 2B*, *The Inventive Concept*.

<u>*Alice/Mayo—Step 2 (Inventive Concept)*</u>
<u>*Step 2B identified in the Revised Guidance*</u>

As recognized by the Revised Guidance, an "inventive concept" under *Alice* step 2 can be evaluated based on whether an additional element or combination of elements:

(1)   "[a]dds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present;" or

(2)   "simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present."

See Revised Guidance, 84 Fed. Reg. at 56.

We now determine whether representative independent claim 1 recites any elements additional to the abstract idea that are *not* well-understood, routine, or conventional. *See* MPEP § 2106.05(d). We do not find any recited in the claims.

The Examiner asserts,

The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the machines claimed to implement the abstract idea are merely generic computer components, including memory, input/output devices, user interface, processor, and a computer-readable medium, implementing the steps of creating a model that has neutral space (or a generically universally applicable model) for a supply chain optimization. . . . Taking the elements

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> both individually and as a combination, the computer
> components at each step of the abstract idea perform purely
> generic computer functions.

(Final Act. 6–7.)

Appellant argues claim 1 recites "significantly more" because: (i) the Examiner "has not supported the rejection with one of the . . . four categories of evidence required by the *Berkheimer* Memo" and "has **not** provided any support showing that the subject matter of claim 1 . . . [is] '**well-understood, routine or conventional**'" (Reply Br. 7–8; Appeal Br. 14–16 (citing USPTO Memorandum, "Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)," published on April 19, 2018 ("*Berkheimer* Memo"))); (ii) "the claimed combination of elements are not well-understood, routine, or conventional," and "the Office Action expressly admitted that the []quoted limitations [of transforming, and determining a neutral-space optimized network model] of claims 1, 8, and 16, '**are neither taught nor suggested, singularly or in combination, by the prior art of record**'" (Appeal Br. 15–16); and (iii) similar to the claims in *BASCOM*, "the pending claims recite a non-conventional non-generic arrangement of steps for configuring a supply chain" and "steps formed by the processor [that] are neither routine nor conventional" (Appeal Br. 8, 13–15 (citing *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1353 (Fed. Cir. 2016)); Reply Br. 8).

Appellant's arguments are not persuasive. Particularly, we are not persuaded that the Examiner has failed to produce factual support or evidence that claim 1 is routine and conventional. The Examiner has noted that Appellant's claim 1 requires generic computer components performing

generic computer functions. (*See* Final Act. 6–7; Ans. 6–7 (citing *Versata Dev. Group, Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1334 (Fed. Cir. 2015) (receiving, storing, retrieving, sorting, and eliminating information is well known); *OIP Techs.*, 788 F.3d at 1363 (noting that storing data is well-understood, routine, and conventional)); *see also Elec. Power Grp.*, 830 F.3d at 1355 (finding that use of "conventional computer, network, and display technology for gathering, sending, and presenting the desired information" does not add significantly more to the claimed abstract idea); Spec. ¶¶ 28–30, 38–39.) The claimed data analysis operations automate manually performable steps using basic computer functions, previously known to the industry. However, "the use of generic computer elements like a microprocessor or user interface" to perform conventional computer functions "do not alone transform an otherwise abstract idea into patent-eligible subject matter." *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096 (Fed. Cir. 2016) (citing *DDR Holdings, LLC, v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014)).

Additionally, Appellant's abstract idea (of a mental process of modelling parameters for a supply chain) applied to generic computing infrastructure, does not provide any particular practical application as required by *BASCOM*. (Ans. 6; *see BASCOM*, 827 F.3d at 1350, 1352.) For example, *BASCOM*'s patent-eligible ordered combination of claim limitations contains an "inventive concept [that] harnesses [a] . . . technical feature of network technology in a filtering system by associating individual accounts with their own filtering scheme and elements while locating the filtering system on an ISP [(Internet Service Provider)] server." *See BASCOM*, 827 F.3d at 1350. *BASCOM*'s claimed ordered combination

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"improve[s] the performance of the computer system itself" with a "technology-based solution . . . to filter content on the Internet that overcomes existing problems with other Internet filtering systems." *See BASCOM*, 827 F.3d at 1351–52 (internal citation omitted). Appellant's abstract idea using generically-claimed computing elements does not provide any particular practical application as required by *BASCOM*, or entail an unconventional technological solution to a technological problem as required by *Amdocs*. *See Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300, 1302 (Fed. Cir. 2016). Claim 1's elements, considered as an ordered combination, do not improve the functioning of a computer itself, or effect an improvement in another technology or technical field. (Ans. 6.) Instead, claim 1 amounts to nothing significantly more than an instruction to apply the abstract idea using a generic processor. (*Id.*) That is not enough to transform an abstract idea into a patent-eligible invention.

Appellant also argues claim 1 recites "significantly more" because unconventional claimed limitations are not taught or suggested by prior art of record. (Appeal Br. 15–16.) This argument improperly conflates the test for 35 U.S.C. § 101 with the separate tests for 35 U.S.C. §§ 102 and 103. *See, e.g.*, *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."). As the Supreme Court emphasizes, "[t]he 'novelty' of any element or steps in a process, or even of the process itself, is of **no relevance** in determining whether the subject matter of a claim falls within

the § 101 categories of possibly patentable subject matter." *Diehr*, 450 U.S. at 188–89 (emphasis added).

Because Appellant's representative claim 1, and grouped claims 2–20 are directed to a patent-ineligible abstract concept and do not recite an "inventive concept" under the second step of the *Alice* analysis, we sustain the Examiner's § 101 rejection of claims 1–20.

DECISION SUMMARY

The Examiner's rejection of claims 1–20 under 35 U.S.C. § 101 is AFFIRMED.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	

FINALITY AND RESPONSE

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED