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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERT Y. NONEZ and ANGELA B. SHEN-HSIEH

Appeal 2019-000065
Application 15/082,352
Technology Center 3600

Before JAMES R. HUGHES, JASON J. CHUNG, and
MATTHEW J. McNEILL, *Administrative Patent Judges*.

HUGHES, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner’s decision rejecting claims 1–7, 9, and 10. Claim 8 has been canceled. *See* Final Act. 1–2.² We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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 International Business Machines Corporation. *See* Appeal Br. 3.

² We refer to Appellant’s Specification (“Spec.”), filed Mar. 28, 2016 (claiming benefit of US 14/619,786 (filed Feb. 11, 2015)); Appeal Brief (“Appeal Br.”), filed July 6, 2018; and Reply Brief (“Reply Br.”), filed Oct. 2, 2018. We also refer to the Examiner’s Final Office Action (“Final Act.”), mailed Feb. 5, 2018; and Answer (“Ans.”) mailed Aug. 3, 2018.

CLAIMED SUBJECT MATTER

The invention generally “relates to business intelligence (BI) systems, and more particularly, to BI analytics systems.” Spec. ¶ 5. “Business intelligence (BI) systems may be used to provide insights into . . . collections of enterprise data,” and “a BI analytics system may perform analysis on data in response to user queries, and present BI analytics data responsive to the queries.” Spec. ¶ 5; *see* Spec. ¶¶ 3–10; Abstract. Claim 1 is independent. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for business intelligence (BI) analytics, the method comprising:

[A] performing, by one or more processing devices, an ontological analysis on data items in a relevant data set defined for a BI analytics query to determine one or more correlations of the data items in the relevant data set with ontological concepts in an ontological concept subsystem;

[B] performing, by the one or more processing devices, a first statistical analysis on a set of direct analytics output data items from the relevant data set that are included in a direct BI analytics output to rank the direct analytics output data items in an order of influence on the direct BI analytics output;

[C] performing, by the one or more processing devices, a second statistical analysis on the data items in the relevant data set relative to the direct analytics output data items to determine one or more of the data items in the relevant data set that influence the respective direct analytics output data items;

[D] generating, by the one or more processing devices, based on the second statistical analysis, a list of key drivers from the data items in the relevant data set such that the list of key drivers has a ranking in an order of the influence;

[E] revising, by the one or more processing devices, the ranking of the list of key drivers based at least in part on the correlations of the key drivers with the ontological concepts by performing at least one of:

[E1] increasing a rank of a first key driver in response to determining that the first key driver has at least one respective correlated ontological concept in the ontological concept subsystem, or

[E2] removing a second key driver from the list in response to determining that the first key driver has at least one respective correlated ontological concept in the ontological concept subsystem; and[;]

[F] generating, by the one or more processing devices, a correlated analytics output comprising information on one or more of the key drivers based on the ranking of the list of key drivers.

Appeal Br. 16–17 (Claims App.) (bracketed claim limitation designations added).

REJECTION

The Examiner rejects claims 1–7, 9, and 10 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. *See* Final Act. 4–7.

ANALYSIS

Subject Matter Eligibility—35 U.S.C. § 101

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. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*,

566 U.S. 66, 77–80 (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*, 573 U.S. at 217. The framework requires us first to consider “whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice*, 573 U.S. at 217. If so, we then examine “the elements of [the] claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 78, 79). That is, we examine the claim for an “inventive concept,” “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*, 573 U.S. at 217–18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

The Patent Office recently published revised guidance concerning this framework and the application of § 101. USPTO’s 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (hereinafter “2019 Revised Guidance”). Under that guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, mental processes, or certain methods of organizing human activity such as a fundamental economic practice or managing personal behavior or relationships or interactions between people) (hereinafter “Step 2A, prong 1”); and

(2) additional elements that integrate the judicial exception into a practical application (*see* MPEP §§ 2106.05(a)–(c), (e)–(h)) (hereinafter “Step 2A, prong 2”).³

See 2019 Revised Guidance, 84 Fed. Reg. at 51–52, 55.

A claim that integrates a judicial exception into a practical application applies, relies on, or uses 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. *See* 2019 Revised Guidance, 84 Fed. Reg. at 54. When the judicial exception is so integrated, then the claim is not directed to a judicial exception and is patent eligible under 35 U.S.C. § 101. *See* 2019 Revised Guidance, 84 Fed. Reg. at 54.

Only if a claim: (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then evaluate whether the claim provides an inventive concept. *See* 2019 Revised Guidance 84 Fed. Reg. at 56; *Alice*, 573 U.S. at 217–18.

For example, we 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.⁴

³ All references to the MPEP are to the Ninth Edition, Revision 08-2017 (rev. Jan. 2018).

⁴ Items (3) and (4) are collectively referred to as “Step 2B” hereinafter and in the 2019 Revised Guidance.

See 2019 Revised Guidance, 84 Fed. Reg. at 56. With these principles in mind, we turn to the merits of the § 101 rejection. The Examiner rejects Appellant’s claims 1–7, 9, and 10 as being directed to patent-ineligible subject matter. *See* Final Act. 4–7; Ans. 3–6. Appellant does not separately argue the claims with specificity and, instead, argues the claims together for this rejection. *See* Appeal Br. 12. Accordingly, we address the Examiner’s rejection of independent claim 1 and the claims not separately argued by Appellant as a group based on claim 1, as permitted by 37 C.F.R. § 41.37(c)(1)(iv).

Statutory Subject Matter

Claim 1 recites a “method.” A method is also known as a “process,” which is a statutory category of invention (subject matter) (USPTO’s Step 1).

Abstract Idea

The Examiner rejects Appellant’s claim 1 as being directed to patent-ineligible subject matter. *See* Final Act. 4–7; Ans. 3–6. Specifically, the Examiner concludes “the claimed invention is directed to a judicial exception (. . . an abstract idea) without significantly more” and claim 1 (and the other pending claims) is “directed to the abstract idea of an idea of itself in that it recites” steps including ontological and statistical analysis (Final Act. 4; *see* Final Act. 5) and mathematical relationships (*see* Final Act. 5). The Examiner also concludes the claim is drawn to “a collection of abstract ideas, specifically collecting, storing, analyzing, and transmitting information,” which amount to mental processes similar to *Electric Power Group*. Ans. 3 (citing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)); *see* Ans. 3–6.

Appellant contends the Examiner erred in rejecting the claims as being directed to patent-ineligible subject matter. *See* Appeal Br. 5–15; Reply Br. 4–7. Specifically, Appellant contends, with respect to the first step of the *Alice* analysis, that the claims (in particular claim 1) “are *not* directed to an abstract idea” (Appeal Br. 6; *see* Appeal Br. 6–10), and that the Examiner improperly interpreted the claims (in particular claim 1) (*see* Appeal Br. 6–10). *See* Appeal Br. 6–10; Reply Br. 4–6. Appellant further contends the claims (in particular claim 1) embody a technical improvement—“independent claim 1 is inextricably tied to the computer technology of business intelligence analytics,” (Appeal Br. 9–10 (emphasis omitted)) “Appellant’s specification identifies a technological improvement to the functioning of business intelligence analytics computing systems” (Appeal Br. 10). *See* Appeal Br. 9–12; Reply Br. 6–7. Appellant also contends the recited features of claim 1 (and the other pending claims) provide “technical improvements” that “are described in Appellant’s specification,” and are analogous to claims found eligible in *Enfish*. Reply Br. 7 (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016)); *see* Appeal Br. 10–12; Reply Br. 6–7.

For the reasons discussed below, we conclude Appellant’s claim 1 (and the other pending claims) recites abstract ideas, these abstract ideas are not integrated into a practical application, nor do they include an inventive concept. In view of the 2019 Revised Guidance, we clarify and expand the Examiner’s reasoning as follows.

We begin our analysis by broadly but reasonably construing Appellant’s claim 1. *See* Appeal Br. 16–17 (Claims App.). Claim 1 recites “[a] method” including “performing . . . an ontological analysis on data

items in a relevant data set” “to determine one or more correlations of the data items in the relevant data set with ontological concepts.” Claim 1 also recites “one or more processing devices” performing the “ontological analysis.” In other words, claim 1 recites a method of performing data/information analysis (characterized as ontological analysis) on data items in a set of data in order to determine correlations among the data and “ontological concepts.” *See Spec.* ¶¶ 8, 19, 39, 60, 61. The limitation recites a processor device performing the analysis. *See Spec.* ¶ 63; Fig. 7. Hereinafter we refer to this limitation as “Step A.”

Claim 1 also recites the processor device(s) “performing” “a first statistical analysis” “on a set of direct analytics output data items from the relevant data set” “to rank the direct analytics output data items in an order of influence on the direct BI analytics output.” That is, the process includes a processing device performing a statistical analysis on a set of data characterized as “direct analytics output” in order to rank the data by their (in the order of) influence (effect) on the direct BI analytics output. Claim 1 further recites the processor device(s) “performing . . . a second statistical analysis on the data items in the relevant data set” “relative to the direct analytics output data items” “to determine one or more of the data items in the relevant data set that influence the respective direct analytics output data items.” In other words, the process includes a processing device performing a second statistical analysis on the set of data in order to determine data that influence (have an effect on) the data characterized (in step B) as direct BI analytics output. *See Spec.* ¶¶ 8, 19, 40, 60, 61. Hereinafter we refer to this limitations as “Step B” and “Step C,” respectively.

Claim 1 additionally recites the processing device generating (determining and producing) a list of key drivers (data determined in step C relative to step B) ranked in an order of the influence based on the second statistical analysis. That is the processor generating an ordered list of data (key drivers). *See Spec.* ¶¶ 8, 40, 61. Hereinafter we refer to this limitation as “Step D.” Claim 1 also recites the processing device revising (adjusting or changing the order of) the ranking of the list (of key drivers) based on the correlations of the key drivers with the ontological concepts (results of step A). Hereinafter we refer to this limitation as “Step E.” *See Spec.* ¶¶ 8, 41–43, 61–62. The revising step (Step E) further includes sub-processes (the revising sub-process), which may include increasing a rank of a data item (a first key driver) responsive to the correlation (step A). *See Spec.* ¶¶ 8, 41–43, 61–62. Hereinafter we refer to this limitation as “Step E1.” The revising sub-process may alternately remove a data item (a second key driver) from the list responsive to determining the first key driver correlation (step A). *See Spec.* ¶¶ 8, 41–43, 61–62. Hereinafter we refer to this limitation as “Step E2.” Claim 1 also recites that the process includes the processing device generating (producing) an output—a correlated analytics output that includes information on the key drivers based on the ranking of the list of key drivers (i.e., the ranking list of key drivers). *See Spec.* ¶¶ 8, 41–43, 61–62. Hereinafter we refer to this limitation as “Step F.”

In summary, the system recited in claim 1 includes a non-abstract element (physical structure) that performs the delineated functions of the process, the processor device(s). The processor device performs business intelligence (BI) analytics process (functions) of information (data) analysis—an ontological analysis (“Step A”), a first statistical analysis

(“Step B”), and a second statistical analysis (“Step C”)—to generate a list of key drivers ranked in an order of the influence (“Step D”), which is manipulation of analyzed data. The processor device further performs business intelligence (BI) analytics process (functions) of manipulating the analyzed data—changing (revising) the order of the ranked list (of key drivers) based on the correlations with the ontological concepts (Steps E, E1, and E2) to produce (generate) an output—the revised ranked list of key drivers (“Step F”). Hereinafter, we refer to this process as the “BI analytics process.”

This is consistent with Applicant’s description of the process— “[i]ndependent claim 1 is directed to a ‘method for business intelligence (BI) analytics’ that includes various steps performed by ‘one or more processing devices.’” Appeal Br. 9. *See also* Spec. ¶ 61—“a statistically and ontologically correlated analytics process . . . executing on one or more computing devices.”

Appellant contends (*supra*) that the claims (in particular claim 1) are not abstract, and that the Examiner erred by improperly interpreting the claims (in particular claim 1). *See* Appeal Br. 6–10. Here, in rejecting the claims (in particular claim 1) under 35 U.S.C. § 101, the Examiner analyzed the claims using the *Mayo/Alice* two-step framework, consistent with the guidance set forth in the USPTO’s “2014 Interim Guidance on Patent Subject Matter Eligibility,” 79 Fed. Reg. 74618 (Dec. 16, 2014), in effect at the time the rejection was made on February 5, 2018. The Examiner notified Appellant 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.” 35 U.S.C. § 132. *See* Final Act. 4–7.

In doing so, the Examiner set forth a prima facie case of unpatentability such that the burden of production shifted to Appellant to demonstrate that the claims are patent eligible.

Appellant also contends (*supra*) the at-issue claims (in particular claim 1) demonstrate a technical improvement. *See* Appeal Br. 9–12; Reply Br. 6–7. Claim 1, however, recites no substantive limitations on how the BI analytics process performs the various information analysis steps (the ontological correlation and statistical analyses), or how the analyzed data is manipulated (how the process generates the ranked list of key drivers, changes the rank, and generates the revised ranked list of key drivers). That is, claim 1 does not recite what the technical features of data analysis and manipulation entail. The limitations are entirely functional in nature, or characterize various data (e.g., a data set defined for a BI analytics query and direct analytics output data items). The recited processing device(s) is an additional element that are not part of the abstract idea analysis.

Although Appellant contends the claims describe purported technological improvements or advances provided by BI analytics process, claim 1 (and the other pending claims) does not explicitly recite any specific improvements to technology, i.e., the processing device performing any improved processing or analysis. Claim 1, instead, simply recites analyzing data, generating results from the analyzed data, and revising the results (data manipulation) to generate a ranked list of data elements (key drivers).

A person can practically perform the function of Limitations A–F mentally, or by using pen and paper. Nowhere does Appellant point to specific claim limitations that distinguish over a human process. Further, the revised guidance explains that “mental processes” include acts that people

can perform in their minds or using pen and paper, even if the claim recites that a generic computer component performs the acts. *See* 2019 Revised Guidance, 84 Fed. Reg. at 52 n.14 (“If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind.”) Because each of the limitations discussed above encompasses an act that people can perform in their minds or using pen and paper, claim 1 recites mental processes. Appellant’s arguments have not persuaded us otherwise.

To the extent Appellant argues utilizing devices (e.g., the processing device(s)) to perform the recited functionality is not abstract, Appellant misconstrues the inquiry. As we explain *supra*, the processing device is an additional element that are not part of this part of the abstract idea analysis. The relevant inquiry is whether the processes (functionality) recited in the claims (in particular claim 1) are abstract.

We construe claim 1 (*supra*) as reciting analyzing and manipulating data (BI analytics information). Claims that recite performing information analysis (e.g., statistical analyses and correlating ontological information), as well as the collection and manipulation of information related to such analysis, have been determined by our reviewing court to be an abstract concept that is not patent eligible. *See SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1165, 1167–68 (Fed. Cir. 2018) (Claims reciting “[a] method for providing statistical analysis” (*id.* at 1165) were determined to be “directed to an abstract idea” (*id.* at 1168). “As many cases make clear, even if a process of collecting and analyzing information is limited to particular content or a particular source, that limitation does not make the collection

and analysis other than abstract” (*id.* at 1168 (internal quotation marks omitted)). *See also Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017) (identifying the abstract idea of collecting, displaying, and manipulating data); *Elec. Power Grp.*, 830 F.3d at 1354 (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); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1345, 1347 (Fed. Cir. 2014) (finding the “claims generally recite . . . extracting data . . . [and] recognizing specific information from the extracted data” and that the “claims are drawn to the basic concept of data recognition”); *Bancorp Servs., L.L.C. v. Sun Life Assurance 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.”). Indeed, even if the analysis requires one to access and gather data from a database or memory, or utilize a pen and paper in the analysis, such analysis may still be an abstract mental process. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) (“[E]ven if some physical steps are required to obtain information from the database . . . such data-gathering steps cannot alone confer patentability.” A claim focused on verifying credit card transaction information is directed to “unpatentable mental processes” because the claim’s steps “can be performed in the human mind, or by a human using a pen and paper.”).

In summary, we conclude Appellant’s claim 1 recites a judicial exception (USPTO’s Step 2A, Prong 1; *see* 2019 Revised Guidance). Specifically, claim 1 recites a process of information analysis—ontological analysis and statistical analysis—to generate a ranked list, revising the ranked list based on ontological analysis, and generating the revised ranked list as discussed *supra*. The BI analytics process consists of mental processes that can be practically performed in the human mind (or utilizing pen and paper) including observation, evaluation, or judgment. *See* 2019 Revised Guidance, 84 Fed. Reg. at 52, 53 (listing “[m]ental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion)” as one of the “enumerated groupings of abstract ideas” (footnote omitted)).

Practical Application

We next consider whether claim 1 integrates the abstract idea into a practical application (USPTO’s Step 2A, Prong 2). *See* 2019 Revised Guidance, 84 Fed. Reg. at 51. In doing so, we consider whether there are any additional elements beyond the abstract idea that, individually or in combination, “integrate the [abstract idea] into a practical application, using one or more of the considerations laid out by the Supreme Court and the Federal Circuit.” 2019 Revised Guidance, 84 Fed. Reg. at 54–55.

Claim 1 recites an additional element beyond the abstract BI analytics process (the judicial exception) (*supra*). The additional element in claim 1 is the processing device (the one or more processing devices) performing the process steps. *See* Spec. ¶ 63; Fig. 7. Appellant’s Specification describes “a computing device . . . used to execute statistically and ontologically correlated analytics program code” where the “[c]omputing device [] may be

a server” or the “computing device may operate as all or part of a real or virtual server, and may be or incorporate a workstation, server, mainframe computer, notebook or laptop computer, desktop computer, tablet, smartphone, feature phone, or other programmable data processing apparatus of any kind.” Spec. ¶ 63. Appellant’s Specification describes the computing device—i.e., the recited “one or more processing devices”—at a high level of generality.

In summary, Appellant’s written description does not portray the processing device as anything but standard computer components. Nor does Appellant’s written description portray these components as operating in a new way. *See, e.g.*, Spec. ¶¶ 45–54, 61–62. Instead the written description depicts these components as generic components operating in their accustomed manner.

Appellant’s written description does not describe these additional elements as performing in any way other than their accustomed functions utilizing standard techniques. Accordingly, Appellant’s written description shows that additional elements are generic. *See Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986) (“[A] patent need not teach, and preferably omits, what is well known in the art.”); *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1331 (Fed. Cir. 2017) (“The claimed mobile interface is so lacking in implementation details that it amounts to merely a generic component (software, hardware, or firmware) that permits the performance of the abstract idea, i.e., to retrieve the user-specific resources.”).

Appellant contends claim 1 (and the other pending claims) provides technical improvement similar to the claims in *Enfish*. *See* Appeal Br. 10–

12; Reply Br. 6–7. In other words, Appellant contends the claims recite a technological improvement that amounts to more than simply utilizing a computer as a tool to accomplish the BI analytics process.

Appellant’s contentions correspond to the reasoning in MPEP §§ 2106.05(a)–(c), where additional elements integrate the judicial exception into a practical application. We, however, disagree with Appellant’s contentions. Appellant’s additional elements do not apply or use the BI analytics process (the judicial exception) in a manner that imposes a meaningful limit on the judicial exception, such that it is more than a drafting effort designed to monopolize the exception. *See Alice*, 573 U.S. at 221–24 (citing *Mayo*, 566 U.S. at 78–85). Rather, Appellant’s claim recites generic computer elements (e.g., the processing device) that are utilized as tools to carry out the information analysis to generate the revised ranked list of key drivers as discussed *supra*. Utilizing computers as tools to perform common data information analysis and data manipulation functions that can be mental processes (an abstract idea) does not impose a meaningful limit on the abstract idea. *See* MPEP § 2106.05(f); *see also Alice*, 573 U.S. at 223 (finding “if [the] recitation of a computer amounts to a mere instruction to implement an abstract idea on a computer that addition cannot impart patent eligibility” (internal quotation marks, citations, and ellipses omitted)).

Appellant’s claim 1 (and the other pending claims) can be distinguished from patent eligible claims such as those in *McRO*, *Enfish*, *BASCOM*, and *DDR Holdings* that are directed to “a specific means or method that improves the relevant technology” (*McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016)), or “a specific improvement to the way computers operate” (*Enfish*, 822 F.3d at

1336), solving a technology-based problem (*BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349–52 (Fed. Cir. 2016)), or a method “rooted in computer technology in order to overcome a problem specifically arising in the realm of computer [technology]” (*DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014)). Contrary to Appellant’s arguments, claim 1 is not a technological improvement or an improvement in a technology. Appellant’s claim 1 does not “improve the functioning of the computer itself” or “any other technology or technical field.” *Alice*, 573 U.S. at 225. Nor does it provide a technological solution to a technological problem. *See DDR Holdings*, 773 F.3d at 1257; MPEP § 2106.05(a). Appellant fails to explain sufficiently and persuasively how the instant claim(s) is directed to an improvement in the way computers operate, nor has Appellant identified any technical advance or improvement or specialized computer components. *See* Appeal Br. 10–12; Reply Br. 6–7.

As discussed *supra*, nothing in claim 1 precludes a human from performing the BI analytics process. Performing such information processing functionality is the reason computers exist. The mere automation of a process that can be performed by a human is not sufficient to show an improvement in computer functionality, and the fact that a computer may increase efficiency—be more efficient by the “statistically and ontologically correlated analytics” process providing the user with better or unexpected results (Appeal Br. 10–11 (citing Spec. ¶¶ 5, 6, 55)—does not change the abstract-idea analysis. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (holding that “merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea”); *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.”); *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016).

In summary, “the focus of the claims is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.” *Elec. Power Grp.*, 830 F.3d at 1354; *see also* MPEP § 2106.05(f) (emphasis omitted) (instructing Examiners to consider “[w]hether the claim invokes computers or other machinery merely as a tool to perform an existing process” in determining whether the claim recites mere instructions to apply the exception), cited in 2019 Revised Guidance, 84 Fed. Reg. at 55, n.30. Thus, we conclude the claims are directed to an abstract idea that is not integrated into a practical application.

Inventive Concept

Having concluded Appellant’s claims are directed to an abstract idea under the 2019 Revised Guidance (Step 2A analysis), we consider whether claim 1 has an inventive concept, that is, whether the claim has additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 78, 79). As discussed above, this requires us to evaluate whether the additional claim elements add “a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field” or “simply append[] well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality.” 2019 Revised Guidance, 84 Fed. Reg. at 56.

The Examiner determined that Appellant’s claim 1 (and the other pending claims) “does not include additional elements that are sufficient to amount to significantly more than the judicial exception” “because the additional elements” “are generic computer components claimed to perform their basic functions of storing, retrieving, sending, and processing data, and do[] not add meaningful limits to practicing the abstract idea,” which are “recited as performing generic computer functions that are well-understood, routine, and conventional activities [that] amount to no more than implementing the abstract idea with a computerized system.” Final Act. 6; *see* Final Act. 6–7; Ans. 5–6.

Appellant contends, with respect to the second step of the *Alice* analysis, that claim 1 (and the other pending claims) recites technical improvements that are additional features which “amount to significantly more than the . . . alleged judicial exception.” Appeal Br. 12; *see* Appeal Br. 12–15. Appellant fails to persuade us of error in the Examiner’s rejection with respect to the second *Alice* step (USPTO’s Step 2B). We agree with the Examiner that Appellant’s claim 1 (and the other pending claims) does not evince an “inventive concept” that is significantly more than the abstract idea itself. In particular, Appellant fails to explain how the additional elements (above) add specific limitations beyond the judicial exception that are not well-understood, routine, and conventional in the field.

As previously discussed, claim 1 (and the other pending claims) merely recites additional non-abstract elements—the one or more processing devices (above)—that perform the BI analytics process. We conclude that these additional elements, individually and as an ordered combination, are generic computer components that carry out common information analysis

and manipulation functions recited in the BI analytics process (the abstract idea). *See, e.g.*, Spec. ¶¶ 45–54, 61–63. Such conventional computer processes operating on conventional computer hardware “do not alone transform an otherwise abstract idea into patent-eligible subject matter.” *FairWarning*, 839 F.3d at 1096 (citing *DDR Holdings*, 773 F.3d at 1256).

For at least the reasons above, we are not persuaded of Examiner error in the rejection of claim 1 under 35 U.S.C. § 101. Thus, we sustain the Examiner’s rejection under § 101 of independent claim 1, and dependent claims 2–7, 9, and 10, which depend from claim 1, and which were not separately argued with specificity.

CONCLUSION

For the reasons discussed above, we determine that claims 1–7, 9, and 10 are directed to an abstract idea and do not demonstrate an inventive concept.

Appellant has not shown that the Examiner erred in rejecting claims 1–7, 9, and 10 under 35 U.S.C. § 101. We therefore sustain the Examiner’s rejection of claims 1–7, 9, and 10.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1-7, 9, 10	101	Eligibility	1-7, 9, 10	

TIME PERIOD FOR 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