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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte KAREN JAFFE and MICHAEL BRAUN-BOGHOS

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Appeal 2018-006568
Application 12/961,832
Technology Center 3600

———————————

Before ELENI MANTIS MERCADER, JOHN P. PINKERTON, and
CARL L. SILVERMAN, *Administrative Patent Judges*.

PINKERTON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant[1] appeals under 35 U.S.C. § 134(a) from the Examiner's
Final Rejection of claims 1, 8, and 29–32, which are all of the claims
pending in the application. Claims 2–7 and 9–28 are canceled. 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. Appellant identifies Oracle International Corporation as the
real party in interest. Appeal Br. 2.

STATEMENT OF THE CASE

Introduction

Appellant generally describes the disclosed and claimed invention as follows:

> Systems, methods, and other embodiments associated with providing an alert when alert criteria is met by monitored AE [(adverse event)] data analysis output. An alert criteria is specified that corresponds to desired results of at least two different instances of AE data analysis. The alert criteria is assessed on at least one data source. A case series that meets the alert criteria is output.

Abstract.[2]

The Specification states that "reports of adverse reactions to drugs (typically called adverse events (AEs)) are received by reporting systems" from healthcare professionals, such as pharmacists and physicians. Spec. ¶ 1. Data summarizing the AEs is stored in large databases and analyzed to detect "signals," which are defined as "reported information on a possible causal relationship between an AE and a drug that was previously unknown or incompletely documented." *Id.* "In general, two types of analysis are performed on the data to detect signals: quantitative and qualitative." *Id.* at 2. In that regard, the Specification explains that:

> Quantitative analysis involves statistically analyzing the AE data to identify AE types that occur more often than other AE types in the data. Quantitative analysis can be performed automatically

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[2] Our Decision refers to the Final Office Action mailed Dec. 30, 2016 ("Final Act."); the Appeal Brief filed June 12, 2017 ("Appeal Br."); the Reply Brief filed June 6, 2018 ("Reply Br."); the Examiner's Answer mailed Apr. 6, 2018 ("Ans."); and the original Specification filed Dec. 7, 2010 ("Spec.").

to determine unknown risks. Qualitative analysis involves testing a hypothesis that specifies a particular AE type by analyzing AE data contained within AE reports and other information sources to confirm the hypothesis. Qualitative analysis is aimed at testing data for a predefined risk.

Id.

Claims 1, 8, and 31 are independent. Claim 1 is representative of the subject matter on appeal and is reproduced below (with paragraph lettering added):

> 1. A non-transitory computer-readable medium storing instructions that, when executed by one or more processors of a computing device, cause the computing device to at least:
>
> (a) provide an interface, via the one or more processors, by which a user specifies an alert criteria, where the alert criteria corresponds to desired results of at least two different instances of quantitative analysis and qualitative analysis of adverse event data, where the adverse event data corresponds to information associated with an adverse reaction to a drug;
>
> (b) receive, by way of an Internet connection, data mining results from one or more data sources;
>
> (c) compare via the one or more processors, the data mining results to the alert criteria to determine when the data mining results meet the alert criteria;
>
> (d) upon determining that the alert criteria is met, request, by way of the Internet connection, cases included in the data mining results, where each case includes details about an adverse event associated with the case;
>
> (e) subsequent to the request, receive, by way of the Internet connection, data describing the cases; and
>
> (f) in response to receiving the data describing the cases, generate an electronic alert to a remote computer, via the one or more processors, to notify an analyst to review the cases at least in part by outputting, through the interface, a case series that includes the data describing the cases.

Appeal Br. 18–19 (Claims App.).

<div align="center">Rejections on Appeal</div>

Claims 1, 8, and 29–32 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 2–6.

Claims 1, 8, and 29–32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gogolak (US 2002/0165845 A1; published Nov. 7, 2002) and Karkanias et al. (US 2008/0208620 A1; published Aug. 28, 2008) ("Karkanias"). Final Act. 6–13.

<div align="center">ANALYSIS</div>

<div align="center">I. SECTION 101 REJECTION</div>

<div align="center">A. Examiner's Findings and Conclusions,
and Appellant's Contentions</div>

The Examiner finds that like the claims in *Electric Power Group* and *Fairwarning*, the claims here "are directed to a combination of abstract-idea categories, namely, the claims are directed to collecting and analyzing information to signal adverse events and notify analysts about such adverse events." Final Act. 3–4. The Examiner also finds that "[t]he data collection and analyzing concept described in the claim[s], like *EPG,* are mental steps people regularly go through in their minds when searching data, namely, setting search criteria, combing through data, refining the combed through data by way of setting more criteria/filtering, and outputting the results." *Id.* at 4; Ans. 4. The Examiner further finds that the claims are "similar to the idea of organizing information through mathematical correlations (data mining algorithms)." Final Act. 4; Ans. 5. Moreover, the Examiner finds that the structural elements recited in claims 1, 8, and 29–32, when taken in combination with the functional elements of the claims, do not offer significantly more than the abstract idea because the claims do not recite an

<div align="center">4</div>

improvement to the functioning of any computer or to another technology or technical field. Final Act. 5. In that regard, the Examiner finds that the additional limitations recited in the claims are generic computer components performing generic computer functions (*e.g.*, receiving, processing, and transmitting information). *Id.* In addition, the Examiner finds that the dependent claims "are merely reciting further embellishment of the abstract idea and do not amount to anything that is significantly more than the abstract idea itself." *Id.* at 6.

Appellant argues that the Examiner failed to identify an abstract idea or concept and, therefore, the rejection under § 101 is improper. Appeal Br. 8. Appellant also argues that claim 1 is directed to "an invention that implements a database system that processes data records." *Id.* (citing Spec. ¶¶ 10–11). According to Appellant, the invention is inextricably tied to computer technology and "requires computers to process data records in a specifically defined process and this is certainly not abstract." *Id.* Appellant further argues that claim 1, as a whole, is significantly more than an abstract idea because it "improves the existing technological processes for processing data records for adverse events" by implementing alert criteria that corresponds to "desired results of at least two different instances of quantitative analysis and qualitative analysis of adverse event data that has not been implemented before." *Id.* at 9–10. In addition, Appellant argues that claim 1 improves the technological process because it allows (1) "a case series to be output through the interface to an analyst without the analyst having to request the case series" and (2) "the evaluation of the alert criteria to be performed by a computer connected via the Internet to the data sources, thus providing improved interaction of the computer with the data

sources to provide improved Internet data mining with respect to adverse reactions to drugs." *Id.* at 10; *see also* Reply Br. 4–5. Moreover, Appellant argues that "claim 1 does not preempt all techniques and thus is significantly more than an abstract idea." Appeal Br. 10–11. For these same reasons, Appellant argues that claims 8 and 31 "are significantly more than an abstract idea" and that all claims satisfy the requirements of § 101." *Id.* at 11. In the Reply Brief, Appellant also argues that the rejection is improper because the Examiner did not provide evidence that any of the claim elements or functions are well-known or generic. Reply Br. 4 (citing *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018)).

B. Applicable Law

"Whether a claim is drawn to patent-eligible subject matter is an issue of law that we review de novo." *SiRF Technology, Inc. v. Int'l Trade Commission*, 601 F.3d 1319, 1331 (Fed. Cir. 2010).

Section 101 of the Patent Act provides that "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" is patent eligible. 35 U.S.C. § 101. However, 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." *Alice Corp. Pty. Ltd. v. CLS Bank International*, 573 U.S. 208, 216 (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). To determine whether a claim falls within one of these excluded categories, the Court has set out a two-part framework. The framework requires us first to consider whether the claim is "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 Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78, 79 (2012)). 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 (quoting *Mayo*, 566 U.S. at 72–73).

In January 2019, the Patent Office issued guidance about this framework. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance" or "Revised Guidance, 84 Fed. Reg.").[3] Under the Revised Guidance, to decide whether a claim is directed to an abstract idea, we evaluate whether the claim (1) recites one of the abstract ideas listed in the Revised Guidance ("Prong One") and (2) fails to integrate the recited abstract idea into a practical application ("Prong Two"). *See* Revised Guidance, 84 Fed. Reg. 51, 54. If the claim is directed to an abstract idea, as noted above, we then determine whether the claim has an inventive concept. The Revised Guidance explains that when making this determination, we should consider 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

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[3] *See also* USPTO, *October 2019 Patent Eligibility Guidance Update* (Oct. 17, 2019), https://www.uspto.gov/sites/default/files/documents/ peg_oct_2019_update.pdf.

industry, specified at a high level of generality." Revised Guidance, 84 Fed. Reg. 56.

With these principles in mind, we first analyze whether claim 1 is directed to an abstract idea.[4]

C. Abstract Idea

1. USPTO Step 2A, Prong One

Beginning with Step 2A, Prong One, of the Revised Guidance, we must determine "whether the claims at issue are directed to one of those patent-ineligible concepts," including the abstract ideas enumerated in the Revised Guidance.[5] *Alice*, 573 U.S. at 217. One of the subject matter groupings identified as an abstract idea in the Revised Guidance is "mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion)." *See* Revised Guidance, 84 Fed. Reg. 52, 53. 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* Revised Guidance, 84 Fed. Reg. 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.").

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[4] Appellant argues claims 1, 8, and 29–32 as a group focusing on claim 1. *See* Appeal Br. 7–11. Thus, we decide the appeal in regard to the § 101 rejection based on representative claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).
[5] The Revised Guidance refers to "Step One" as determining whether the claimed subject matter falls within the four statutory categories identified by 35 U.S.C. § 101: "process, machine, manufacture, or composition of matter." This step is not at issue in this case.

For our prong one analysis, we set aside, for consideration below, the technological elements recited in claim 1: "non-transitory computer-readable medium storing instructions," "one or more processors," "computing device," "interface," "Internet connection," and "remote computer." Apart from these elements, claim 1 focuses on collecting and analyzing information to identify or "signal" adverse events, and then notify an analyst to review cases about such adverse events, by performing the following operations or functions: (a) "a user specifies an alert criteria . . . [that] corresponds to desired results of at least two different instances of quantitative analysis and qualitative analysis of adverse event data"; (b) "receive . . . data mining results from one or more data sources"; (c) "compare . . . the data mining results to the alert criteria to determine when the data mining results meet the alert criteria"; (d) "upon determining that the alert criteria is met, request . . . cases included in the data mining results"; (e) "subsequent to the request, receive . . . data describing the cases"; and (f) "in response to receiving the data describing the cases . . . notify an analyst to review the cases at least in part by outputting . . . a case series that includes the data describing the cases."

Consistent with the Examiner's findings, we determine that claim 1, as a whole, focuses on the abstract idea of "mental processes." *See* Ans. 4–5. For example, a person can "specify an alert criteria," as described in limitation (a), by making a mental judgment as to what different instances of quantitative analysis and qualitative analysis of adverse event data to specify and then identify those instances using pen and paper. A person can perform the function of "receiving" data mining results, as recited in limitation (b), by observing the results from one or more data sources. And, a person can

perform the function of "comparing" the data mining results to the alert criteria, as recited in step (c), either mentally or by observing and evaluating the alert criteria and the data mining results recorded on paper. We also determine that the functions of "request . . . cases included in the data mining results" and "receive data describing the cases," as recited in limitations (d) and (e), respectively, are insignificant extra-solution activity, *e.g.*, mere data-gathering. *See* Revised Guidance, 84 Fed. Reg. 55 n.31.[6]

We see no meaningful difference in claim 1 and claims in similar cases that the Federal Circuit has found are directed to an abstract idea. *See, e.g., Electric Power Grp. LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (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); *see also Content Extraction and Transmission LLC v. Wells Fargo Bank, National Association*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) ("[C]ollecting data,[] recognizing certain data within the collected data set, and . . . storing that recognized data in a memory."); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372, 1375–76 (Fed. Cir. 2011) (Holding that the incidental use of "computer" or "computer readable medium" does not make a claim otherwise directed to process that "can be performed in the human mind, or by a human using a pen and paper" patent eligible, explaining that "purely mental processes can be unpatentable, even when performed by a

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[6] Limitation (f) of claim 1 recites "generate an electronic alert . . . to notify an analyst to review the cases." We determine that limitation (f) constitutes insignificant extra-solution activity, *e.g.*, post-solution activity. *See* Revised Guidance, 84 Fed. Reg. 55 n.31.

computer."); and *Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Can.*, 771 F Supp.2d 1054, 1066 (E.D. Mo. 2011), *aff'd*, 687 F.3d at 1266 (Explaining that "storing, retrieving, and providing data . . . are inconsequential data gathering and insignificant post solution activity.").

Appellant's arguments relating to prong one are not persuasive. First, contrary to Appellant's argument that the Examiner failed to identify an abstract idea, the Examiner finds that the claims are directed to a "combination of abstract-idea categories"—namely, mental processes and mathematical correlations (data mining algorithms). Final Act. 3–4; *see also* Ans. 4–5. As discussed above, we agree with the Examiner that the claims are directed to the abstract idea of mental processes. Second, we are not persuaded by Appellant's argument that the Examiner has not provided evidence to prove that the claimed functions, which are performed, for example, with processors, can be performed "in the mind" of people. Reply Br. 2–3. There is no requirement in the Revised Guidance or otherwise that the Examiner must provide evidence that the claimed functions can be performed in the human mind or by pen and paper. A claim recites a mental process when the claim encompasses acts people can perform using their minds or pen and paper. *See, e.g., CyberSource*, 654 F.3d at 1372–73 (Fed. Cir. 2011) (determining that a claim whose "steps can be performed in the human mind, or by a human using a pen and paper" is directed to an unpatentable mental process). And, this is true even if the claim recites that a generic computer component performs the acts. *See, e.g., Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) ("Courts have examined claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and

paper or in a person's mind."); *see also* 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.").

Accordingly, we conclude that claim 1 focuses on identifying data or

cases involving a particular adverse reaction to a drug, and then notifying an

analyst to review the cases, by performing functions that can be performed

in the human mind or with paper and pen. Thus, we also conclude that the

focus of claim 1 is the abstract idea of mental processes.

2. USPTO Step 2A, Prong Two

Because we determine that claim 1 recites an abstract idea, we turn to

prong two of the first step of the *Alice* analysis and consider whether claim 1

integrates this abstract idea into a practical application. *See* Revised

Guidance, 84 Fed. Reg. 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."[7] Revised Guidance, 84 Fed. Reg. 54–55.

As stated above, the technological elements recited in claim 1 are

"non-transitory computer-readable medium storing instructions," "one or

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[7] We acknowledge that some of these considerations may be properly
evaluated under step 2 of *Alice* (step 2B of the Revised Guidance, 84 Fed.
Reg.). Solely for purposes of maintaining consistent treatment within the
Office, we evaluate it under step 1 of *Alice* (step 2A, prong two, of the
Revised Guidance, 84 Fed. Reg.). *See* Revised Guidance, 84 Fed. Reg. 54–
55.

more processors," "computing device," "interface," "Internet connection," and "remote computer." These elements are recited at a high level of generality in claim 1 without sufficient detail or specific implementation structure to limit the abstract idea to a specific practical application. These elements are also broadly described in the Specification. *See, e.g.*, Spec. ¶ 25("computer-readable medium is a non-transitory medium that stores computer executable instructions that if executed by a machine (*e.g.*, processor) cause the machine to perform a method . . ."); ¶ 32 ("computing device may be a computer 600 that includes a processor 602, a memory 604, and input/output ports 610 operably connected by a bus 608"); ¶ 36 ("the processor 602 may be a variety of various processors including dual microprocessor and other multi-processor architectures"); ¶¶ 37, 39 ("computer 600 may interact with input/output devices via the I/O interfaces 618 and the input/output ports 610"; ¶ 40 ("computer 600 . . . may be connected to the network devices 620 via the I/O interfaces 618, and/or the I/O ports 610. Through the network devices 620, the computer 600 may interact with a network . . . [and] may be logically connected to remote computers.")

We find no indication in the Specification, nor does Appellant direct us to any indication, that the functions of claim 1 require any specialized computer hardware or other inventive computer components, i.e., a particular machine, invoke any asserted 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.").

As discussed *supra*, Appellant argues that the invention is inextricably tied to computer technology and "requires computers to process data records in a specifically defined process and this is certainly not abstract." Appeal Br. 8. Appellant also argues that claim 1, as a whole, is significantly more than an abstract idea because it "improves the existing technological processes for processing data records for adverse events" by implementing alert criteria that corresponds to "desired results of at least two different instances of quantitative analysis and qualitative analysis of adverse event data that has not been implemented before." *Id.* at 9–10. Appellant further argues that claim 1 improves the technological process because it allows (1) "a case series to be output through the interface to an analyst without the analyst having to request the case series" and (2) "the evaluation of the alert criteria to be performed by a computer connected via the Internet to the data sources, thus providing improved interaction of the computer with the data sources to provide improved Internet data mining with respect to adverse reactions to drugs." *Id.* at 10; *see also* Reply Br. 4–5.

We are not persuaded by Appellant's arguments. First, we are not persuaded by Appellant's argument that the invention requires computers to process data records and that evaluation of the alert criteria is performed by a computer connected via the Internet to the data sources. As discussed *supra*, "the recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible." *See, e.g., DDR Holdings*, 773 F.3d at 1256. Second, Appellant's argument that claim 1 "improves the existing technological processes for processing data records for adverse

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events" by (1) implementing alert criteria that corresponds to "desired results of at least two different instances of quantitative analysis and qualitative analysis of adverse event data that has not been implemented before" and (2) by allowing "a case series to be output through the interface to an analyst without the analyst having to request the case series," is insufficient to provide a practical application because this is nothing more than the abstract idea itself. *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) ("It has been clear since *Alice* that a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention "significantly more" than that ineligible concept."); *see also Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1359 (Fed. Cir. 2018) ("[T]he 'inventive concept' cannot be the abstract idea itself.").

Accordingly, we conclude that the additional elements recited in claim 1 do not impose a meaningful limit on the abstract idea and integrate the abstract idea into a practical application. *See SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1169–70 (Fed. Cir. 2018); *see also Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1262 (Fed. Cir. 2016) ("In this case, the claims are directed not to an improvement in cellular telephones but simply to the use of cellular telephones as tools in the aid of a process focused on an abstract idea. That is not enough to constitute patentable subject matter."); and Revised Guidance, 84 Fed. Reg. 55 (explaining that courts have identified "merely us[ing] a computer as a tool to perform an abstract idea" as an example of when a judicial exception may not have been integrated into a practical application). Further, consistent with the Examiner's findings (*see* Final Act. 5–6; Ans. 6–8) and in view of

Appellant's Specification (*see, e.g.*, Spec. ¶¶ 25, 32, 36–41), we conclude that claim 1 does not integrate the judicial exception into a practical application, and thus is directed to the judicial exception itself. In particular, we determine claim 1 does not recite:

> (i) an improvement to the functioning of a computer;
> (ii) an improvement to another technology or technical field;
> (iii) an application of the abstract idea with, or by use of, a particular machine;
> (iv) a transformation or reduction of a particular article to a different state or thing; or
> (v) other meaningful limitations beyond generally linking the use of the abstract idea to a particular technological environment.

See MPEP § 2106.05(a)–(c), (e)–(h).

3. USPTO Step 2B — Inventive Concept

Finally, we consider whether claim 1 has an inventive concept, that is, whether any additional claim 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). 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." Revised Guidance, 84 Fed. Reg. 56.

As stated *supra*, the Examiner finds that the structural elements recited in claims 1, 8, and 29–32, when taken in combination with the functional elements of the claims, do not offer significantly more than the abstract idea because the claims do not recite an improvement to the

functioning of any computer or to another technology or technical field.
Final Act. 5; Ans. 6–8. In that regard, the Examiner finds that the additional
limitations recited in the claims are generic computer components
performing generic computer functions (*e.g.*, receiving, processing, and
transmitting information). Final Act. 5; Ans. 6.

As discussed *supra*, Appellant argues that claim 1 improves the
existing technological processes for processing data records for adverse
events and, thus, recites significantly more than an abstract idea. Appeal Br.
9–10; Reply Br. 4–5 (citing Spec. ¶¶ 11–13). Appellant also argues that
"claim 1 does not preempt all techniques and thus is significantly more than
an abstract idea." Appeal Br. 10–11. Appellant further argues that the
rejection is improper because the Examiner did not provide evidence that
any of the claim elements or functions are well-known or generic. Reply Br.
4 (citing *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018)).

We are not persuaded by Appellant's arguments. First, we are not
persuaded by Appellant's argument that claim 1 recites a technique that
achieves an improvement to prior technological processes. Appeal Br. 9–10;
Reply Br. 4–5. As discussed *supra,* we have determined that claim 1 does
not recite an improvement to the functioning of a computer or an
improvement to another technology or technical field. Appellant has also
failed to demonstrate that claim 1 requires any specialized computer
hardware, other inventive computer components, i.e., a particular machine,
or that the claimed invention is performed using other than readily available
components. Further, as discussed above, we agree with the Examiner's
finding that the additional limitations recited in the claims are generic
computer components performing generic computer functions (*e.g.*,

receiving, processing, and transmitting information). Final Act. 5; Ans. 6. *See, e.g.*, *Alice*, 573 U.S. at 225–26 (Holding that "implement[ing] the abstract idea . . . on a generic computer" was not sufficient "to transform an abstract idea into a patent-eligible invention.").

Thus, even if we were to agree with Appellant that the recited elements of claim 1 "achieve an improvement that previous systems could not perform," Appellant's argument is not persuasive because any alleged improvement lies in the abstract idea itself, not to any technological improvement. *See BSG,* 899 F.3d at 1287–88. Such an improvement to the recited abstract idea does not confer patent-eligibility. *See Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1363–65 (Fed. Cir. 2020) (collecting cases); *see also Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (determining that even though "some of the eleven steps were not previously employed in this art," that was "not enough—standing alone—to confer patent eligibility upon the claims at issue.").

Second, we are not persuaded by Appellant's argument that, in view of *Berkheimer*, the rejection is improper because the Examiner did not provide evidence to prove that the claim elements or functions are well-known or generic. Reply Br. 4. Here, the Examiner finds that the claims recite a generic computer and generic computer components, such as a processor, computer readable medium, interface, and Internet connection. Final Act. 5; Ans. 6, 8. The Examiner also finds the Specification does not demonstrate "that there is a software-based invention that improves technological process," as Appellant alleges. Ans. 7. In addition, we find that the Specification indisputably shows the additional elements of claim 1 were well-understood, routine, and conventional at the time of filing because

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they are described in a general manner without additional details that would distinguish them from conventional components. *See*, *e.g.*, Spec. ¶¶ 25, 32, 36–41; *see also Berkheimer*, 890 F.3d at 1371 ("Relying on the specification alone may be appropriate where, as in *Mayo*, the specification *admits* . . . ." [that the additional elements were well-understood, routine, and conventional]). And, as discussed *supra*, we have determined that claim 1 does not recite a technological improvement to computers, computer components or software. Accordingly, we agree with the Examiner's findings that the additional elements of claim 1 were well-understood, routine, and conventional. *See, e.g., Alice*, 573 U.S. at 225–26 (holding that "implement[ing] the abstract idea . . . on a generic computer" was not sufficient "to transform an abstract idea into a patent-eligible invention"); *Mortg. Grader, Inc. v. First Choice Loan Servs., Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (noting that components such an "interface," "network," and "database" are generic computer components that do not satisfy the inventive concept requirement); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) ("That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.").

Third, we are not persuaded by Appellant's argument that claim 1 does not preempt all techniques and, therefore, is significantly more. "While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility . . . . Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot."

Inc., 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) ("[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.").

Thus, considering claim 1 as a whole, we determine that the additional elements recited in claim 1 are readily available computing elements performing their basic functions and do not provide "a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field." Revised Guidance, 84 Fed. Reg. 56. Rather, these elements "simply append[] well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality." *Id.* Accordingly, we find that claim 1 does not have an inventive concept.

4. *Opinion*

Because we determine that claim 1 is directed to an abstract idea and does not contain an inventive concept, we sustain the Examiner's rejection of claim 1 under 35 U.S.C. § 101. For the same reasons, we sustain the Examiner's rejection under 35 U.S.C. § 101 of independent claims 8 and 31, and dependent claims 29–30 and 32, which are not argued separately substantively.

II. SECTION 103 REJECTION

The dispositive issue raised by Appellant's arguments with respect to the rejection of claims 1, 8, and 29–32 under § 103(a) is whether the combination of Gogolak and Karkanias teaches or suggests the user specifies an alert criteria, where "the alert criteria corresponds to desired results of at

least two different instances of quantitative analysis and qualitative analysis of adverse event data," as recited in limitation (a) of claim 1, and commensurately recited in claims 8 and 31.[8] *See* Appeal Br. 13–15; Reply Br. 6.

The Examiner relies on Gogolak as teaching the "alert criteria corresponds to desired results of at least two different instances of quantitative analysis and qualitative analysis of adverse event data." Final Act. 7–8 (citing Gogolak Figs. 1, 3, 17; ¶¶ 26, 115, 173). In response to Appellant's arguments that Gogolak fails to teach the "alert criteria" of limitation (a), the Examiner finds that Gogolak describes a QScan home page (i.e., interface) to facilitate in selecting a data mining algorithm (i.e., proportional analysis) and "specification of criteria (i.e., query), corresponding to desired results comprising both quantitative and qualitative analysis." Ans. 9 (citing Gogolak Figs. 1, 3, 17; ¶ 115). In particular, the Examiner finds that from the home screen, a user can (1) select a drug to study, (2) "recall a previously saved query (called a filter)," (3) review previously submitted analyses, and (4) invoke certain data mining engines. *Id.* (citing Gogolak Fig. 3).

On the record before us, we are persuaded by Appellant's arguments that the Examiner erred. First, Appellant argues, and we agree, that paragraph 26 of Gogolak does not teach or suggest the "alert criteria" of claim 1. Instead, as Appellant argues, and we agree, paragraph 26 teaches that at least one data mining engine is "selected from the group consisting of

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[8] Appellant argues claims 1, 8, and 29–32 as a group focusing on claim 1. *See* Appeal Br. 11–16. Thus, we decide the appeal in regard to the § 103(a) rejection based on representative claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

(1) a proportional analysis engine . . ., (2) a comparator . . ., and (3) a correlator   . . . ," which "is not what is claimed." Appeal Br. 13. Second, Appellant argues, and we agree, that paragraph 115 of Gogolak does not teach or suggest specifying an alert criteria that "corresponds to desired results of at least two different instances of quantitative analysis and qualitative analysis of adverse event data." Reply Br. 6. Instead, as Appellant argues, and we agree, paragraph 115 of Gogolak "discusses a home screen where a user can (1) select a drug, (2) recall a previous filter, (3) review previously submitted analysis, or (4) invoke certain data mining engines directly." Again, this is not what is claimed in the "alert criteria" limitation of claim 1.

On this record, we find the preponderance of the evidence establishes that Gogolak does not teach or suggest "the alert criteria corresponds to desired results of at least two different instances of quantitative analysis and qualitative analysis of adverse event data." The Examiner does not rely on Karkanias to teach or suggest this limitation. Accordingly, for these reasons, we do not sustain the Examiner's rejection of claim 1 under § 103(a). For the same reasons, we do not sustain the Examiner's rejection of claims 8 and 31, as well as dependent claims 29–30 and 32.

DECISION

We affirm the Examiner's rejection of claims 1, 8, and 29–32 under 35 U.S.C. § 101.

We reverse the Examiner's rejection of claims 1, 8, and 29–32 under 35 U.S.C. § 103(a).

Because we affirm at least one ground of rejection with respect to each claim on appeal, the Examiner's decision is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 8, 29–32	101	Eligibility	1, 8, 29–32	
1, 8, 29–32	103(a)	Gogolak, Karkanias		1, 8, 29–32
Overall outcome			1, 8, 29–32	

No 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).

<u>AFFIRMED</u>