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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 RICHARD TYLER CURTIS and KYLE YOST
_____

Appeal 2018-006234
Application 13/464,314
Technology Center 3600
_____

Before ROBERT E. NAPPI, MATTHEW J. McNEILL, and
STEVEN M. AMUNDSON, *Administrative Patent Judges*.

AMUNDSON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant[1,2] seeks our review under 35 U.S.C. § 134(a) from a
rejection of claims 1–18, i.e., all pending claims. Because the claims have
been twice rejected, we have jurisdiction under 35 U.S.C. §§ 6(b) and
134(a). *See Ex parte Lemoine*, 46 USPQ2d 1420, 1423 (BPAI 1994)
(precedential).

We affirm.

_____

[1] We use the word "Appellant" to refer to "applicant" as defined in
37 C.F.R. § 1.42. Appellant identifies the real party in interest as Oracle
International Corporation. Appeal Br. 2.
[2] We note that the fee for filing a notice of appeal and the fee for forwarding
the appeal to the Board were paid only for a small entity. We leave it to the

STATEMENT OF THE CASE

The Invention

According to the Specification, the "invention relates to energy use reporting, and more particularly to building energy use reporting." Spec. ¶ 2.[3] The Specification states that "[i]t is known in the prior art to report a consumer's resource usage as compared to the resource usage of his neighbors" and that previous "methods select neighbors that have similar characteristics to the consumer." *Id.* ¶ 3. The Specification also states that "[t]his methodology works adequately for areas where homes share many common characteristics" but "does not work as well for areas where factors other than geography should be considered to accurately determine similar consumers." *Id.*

The invention purports to address that problem with a computer system that (1) "retrieves consumer characteristic data and resource usage data for [a] first consumer and a set of second consumers including characteristic data related to each consumer"; (2) "selects at least one consumer that is similar to the first consumer from the set of second consumers based upon a plurality of common criteria between the first consumer's characteristic data and a second consumer's characteristic data"; (3) continues selecting similar consumers "iteratively until the total number

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Examiner to determine the propriety of those payments and whether fees for other than a small or micro entity should have been paid. *See* 37 C.F.R. § 41.20(b).

[3] This decision uses the following abbreviations: "Spec." for the Specification, filed May 4, 2012; "Non-Final Act." for the Non-Final Office Action, mailed June 16, 2017; "Appeal Br." for the Appeal Brief, filed November 14, 2017; "Ans." for the Examiner's Answer, mailed March 26, 2018; and "Reply Br." for the Reply Brief, filed May 29, 2018.

of similar consumers is equal to or greater than [a] predetermined number of consumers"; and (4) "generates a report that displays the first consumer's resource usage data and the at least one similar consumers' resource usage data." *Id.* Abstract; *see id.* ¶ 4.

Exemplary Claim

Independent claim 1 exemplifies the claims at issue and reads as follows (with formatting added for clarity):

> 1. A computerized method for reporting a first consumer's usage of a resource, the method comprising:
>
> > retrieving, by a processor, consumer characteristic data and resource usage data for a first consumer and consumer characteristic data and resource usage data for each consumer in a set of second consumers,
> >
> > > the consumer characteristic data including a plurality of characteristics related to each respective consumer,
> > >
> > > the resource usage data comprising at least one of: electricity usage data, or gas usage data;
> >
> > performing, by the processor, an iterative process comprising:
> >
> > > selecting, by the processor, from the set of second consumers, at least one selected consumer to define a data set of similar consumers, such that each selected consumer is similar according to a plurality of criteria, to the first consumer,
> > >
> > > wherein similarity is defined, for each criterion of the plurality of criteria, as at least one of:
> > >
> > > > a match between a characteristic of the selected consumer's characteristic data and a characteristic of the first consumer's characteristic data; and

a match between a characteristic of the selected consumer's characteristic data and a range, the range being determined by a processor, based on at least one characteristic of the first consumer's characteristic data;

after defining the data set of similar consumers, if a total number of the similar consumers selected is less than a predetermined number of consumers, abating, by at least the processor, at least one criterion from the plurality of criteria, by at least one of:

(i) removing at least one common criterion from the plurality of criteria; and

(ii) increasing at least one range for at least one criterion of the plurality of criteria;

wherein the abating reduces a number of iterations performed by the processor to define the data set of similar consumers; and

repeating the iterative process using the abated plurality of criteria until the total number of the similar consumers selected at least matches the predetermined number of consumers; and

generating, by the processor, a report that at least compares the first consumer's resource usage data and the at least one selected consumer's resource usage data.

Appeal Br. 21–22 (Claims App.).

The Rejection on Appeal

Claims 1–18 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Non-Final Act. 7–12.

ANALYSIS

We have reviewed the rejection in light of Appellant's arguments that the Examiner erred. For the reasons explained below, we concur with the

Examiner's conclusion concerning ineligibility under § 101. We provide the
following to address and emphasize specific findings and arguments.

Introduction

The Patent Act defines patent-eligible subject matter broadly:
"Whoever 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." 35 U.S.C. § 101. In *Mayo* and *Alice*, the
Supreme Court explained that § 101 "contains an important implicit
exception" for laws of nature, natural phenomena, and abstract ideas. *Mayo
Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012);
Alice Corp. v. CLS Bank Int'l, 573 U.S. 208, 216 (2014); *see Diamond v.
Diehr*, 450 U.S. 175, 185 (1981). In *Mayo* and *Alice*, the Court set forth a
two-step analytical framework for evaluating patent-eligible subject matter.
Mayo, 566 U.S. at 77–80; *Alice*, 573 U.S. at 217–18.

Under *Mayo*/*Alice* step one, we "determine whether the claims at
issue are directed to" a judicial exception, i.e., an abstract idea, a law of
nature, or a natural phenomenon. *Alice*, 573 U.S. at 217. Step one involves
looking at the "focus" of the claims at issue and their "character as a whole."
SAP Am., Inc. v. InvestPic, LLC, 898 F.3d 1161, 1167 (Fed. Cir. 2018).

In January 2019, the PTO issued revised guidance for determining
whether claims are directed to a judicial exception. *See 2019 Revised Patent
Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019
Guidance"). The 2019 Guidance applies to the Board. *Id.* at 50–51, 57 n.42;
see 35 U.S.C. § 3(a)(2)(A) (investing the Director with responsibility "for
providing policy direction" for the PTO). Neither the Examiner nor

Appellant had the benefit of the 2019 Guidance when presenting their respective positions concerning subject-matter eligibility.

The 2019 Guidance specifies two prongs for the analysis under *Mayo*/*Alice* step one (PTO step 2A). 84 Fed. Reg. at 54–55. Prong one requires evaluating "whether the claim recites a judicial exception, *i.e.*, an abstract idea, a law of nature, or a natural phenomenon." *Id.* at 54. "If the claim does not recite a judicial exception, it is not directed to a judicial exception," and it satisfies § 101. *Id.* "If the claim does recite a judicial exception, then it requires further analysis" under prong two. *Id.* Prong two requires evaluating "whether the claim as a whole integrates the recited judicial exception into a practical application of the exception." *Id.* "When the exception is so integrated, then the claim is not directed to a judicial exception," and it satisfies § 101. *Id.* "If the additional elements do not integrate the exception into a practical application, then the claim is directed to the judicial exception," and it "requires further analysis" under *Mayo*/*Alice* step two (PTO step 2B). *Id.*

Under *Mayo*/*Alice* step two, we "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements" add enough to transform the "nature of the claim" into "significantly more" than the judicial exception. *Alice*, 573 U.S. at 217–18, 221–22 (quoting *Mayo*, 566 U.S. at 78–79). Step two involves the search for an "inventive concept." *Alice*, 573 U.S. at 217–18, 221; *Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1366 (Fed. Cir. 2019). "[A]n inventive concept must be evident in the claims." *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017).

Mayo/Alice Step One: PTO Step 2A Prong One

For *Mayo/Alice* step one, the Federal Circuit has noted that "[a]n abstract idea can generally be described at different levels of abstraction." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). Here, the Examiner determines that the claims are directed to the abstract idea of "reporting a first consumer's usage of a resource." Non-Final Act. 4, 8 (emphasis omitted). The Examiner reasons that the abstract idea corresponds to (1) "collecting information, analyzing it and displaying certain results of the collection and analysis," (2) "[o]btaining and comparing intangible data," and (3) "organizing information through mathematical correlations." *Id.* at 8 (emphasis omitted) (citing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011)).

Appellant disputes that independent claims 1, 17, and 18 are directed to an abstract idea. *See* Appeal Br. 10–15, 20; Reply Br. 2–6. Specifically, Appellant asserts that the "claims have been highly abstracted and overgeneralized into generic elements by the Examiner" and that "[t]his is a clear error." Appeal Br. 11.

We disagree. In determining that the claims are directed to an abstract idea, the Examiner accurately assesses the "focus" of the claims and their "character as a whole." *See* Non-Final Act. 8–9; Ans. 3–4, 7; *see also SAP Am.*, 898 F.3d at 1167.

In addition, we determine that the claims recite abstract ideas falling within one of the three groupings of abstract ideas specified in the 2019

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Guidance, i.e., "mental processes." *See* 84 Fed. Reg. at 51–52. The 2019 Guidance describes "mental processes" as "concepts performed in the human mind," such as "an observation, evaluation, judgment, [or] opinion." *Id.* at 52 (footnote omitted). As explained below, each independent claim recites "mental processes" in various limitations.

For instance, claim 1 recites the following limitations:

- "performing . . . an iterative process comprising";
- "selecting . . . from the set of second consumers, at least one selected consumer to define a data set of similar consumers, such that each selected consumer is similar according to a plurality of criteria, to the first consumer";
- "wherein similarity is defined, for each criterion of the plurality of criteria, as at least one of: a match between a characteristic of the selected consumer's characteristic data and a characteristic of the first consumer's characteristic data; and a match between a characteristic of the selected consumer's characteristic data and a range, the range being determined . . . based on at least one characteristic of the first consumer's characteristic data";
- "after defining the data set of similar consumers, if a total number of the similar consumers selected is less than a predetermined number of consumers, abating . . . at least one criterion from the plurality of criteria, by at least one of: (i) removing at least one common criterion from the plurality of criteria; and (ii) increasing at least one range for at least one criterion of the plurality of criteria"; and
- "repeating the iterative process using the abated plurality of criteria until the total number of the similar consumers selected at least matches the predetermined number of consumers."

Appeal Br. 21–22. Claims 17 and 18 recite similar limitations. *Id.* at 27–32; *see id.* at 20.

The above-identified limitations encompass evaluations performed by a human mentally or with pen and paper. For example, the Specification explains that "the number of common criteria . . . may be equal to 3." Spec. ¶ 11; *see id.* ¶ 34. The Specification also explains that the predetermined number of consumers may equal "one similar consumer." *Id.* ¶ 54.

Hence, a person could identify a particular consumer from a total population of ten consumers, for example, and decide to procure a report for the identified consumer. Then, the person could use three common criteria to select consumers similar to the identified consumer with a goal of obtaining at least one similar consumer. If the three common criteria resulted in no similar consumers, the person could mentally compare that result to the goal of obtaining at least one similar consumer. After that mental comparison, the person could mentally decide to use two of the three common criteria in the next iteration to select consumers similar to the identified consumer. If the two common criteria used in the next iteration resulted in at least one similar consumer, the person could mentally compare that result to the goal of obtaining at least one similar consumer.

For these reasons, the above-identified limitations encompass evaluations performed by a human mentally or with pen and paper. The 2019 Guidance identifies an evaluation performed by a human mentally or with pen and paper as a mental process, and thus an abstract idea. 84 Fed. Reg. at 52 & nn.14–15; *see also Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) ("*Symantec*") ("[W]ith the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.").

Mayo/Alice Step One: PTO Step 2A Prong Two

Because we determine that each independent claim recites abstract ideas, we consider whether each claim as a whole integrates the recited abstract ideas into a practical application. *See* 84 Fed. Reg. at 54–55. "Only when a claim recites a judicial exception and fails to integrate the exception into a practical application, is the claim 'directed to' a judicial exception . . . ." *Id.* at 51.

As additional elements, the independent claims recite computer components, i.e., a "processor" and a "memory" or "computer readable medium." Appeal Br. 21–22, 27–32. The claims also recite data-collecting and data-presenting limitations. *Id.* at 21–22, 27–32.

For instance, claim 1 recites the following data-collecting and data-presenting limitations:

- "retrieving . . . consumer characteristic data and resource usage data for a first consumer and consumer characteristic data and resource usage data for each consumer in a set of second consumers, the consumer characteristic data including a plurality of characteristics related to each respective consumer, the resource usage data comprising at least one of: electricity usage data, or gas usage data"; and

- "generating . . . a report that at least compares the first consumer's resource usage data and the at least one selected consumer's resource usage data."

Appeal Br. 21–22. Claims 17 and 18 recite similar data-collecting and data-presenting limitations. *Id.* at 27–32; *see id.* at 20.

We determine that each independent claim as a whole does not integrate the recited abstract ideas into a practical application because the additional elements do not impose meaningful limits on the abstract ideas.

See 84 Fed. Reg. at 53–54; *see also* Non-Final Act. 5–6, 9. The claimed computer components constitute generic computer components that perform generic computer functions. *See* Non-Final Act. 4, 9–12; Ans. 4, 6–8; *see also* Spec. ¶¶ 15, 61, 64, 66, 68. Further, the data-collecting and data-presenting limitations constitute insignificant extra-solution activity. *See*, *e.g.*, *Mayo*, 566 U.S. at 79; *Bilski v. Kappos*, 561 U.S. 593, 611–12 (2010); *Apple*, 842 F.3d at 1241–42; *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363–64 (Fed. Cir. 2015); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014); *CyberSource*, 654 F.3d at 1370; *In re Grams*, 888 F.2d 835, 839–40 (Fed. Cir. 1989).

As an example of insignificant extra-solution activity, in *Mayo* the Supreme Court decided that measuring metabolite levels for later analysis constituted purely "conventional or obvious" pre-solution activity. *Mayo*, 566 U.S. at 79. Similarly, the Federal Circuit has held that mere data-gathering steps "cannot make an otherwise nonstatutory claim statutory." *CyberSource*, 654 F.3d at 1370 (quoting *Grams*, 888 F.2d at 840). The Federal Circuit has also held that (1) presenting offers to potential customers and (2) gathering statistics concerning customer responses were "conventional data-gathering activities that d[id] not make the claims patent eligible." *OIP Techs.*, 788 F.3d at 1363–64. Consistent with those decisions, the Manual of Patent Examining Procedure ("MPEP") identifies "gathering data" as an example of insignificant pre-solution activity. MPEP § 2106.05(g) (9th ed. rev. 08.2017 Jan. 2018).

Here, the data-collecting limitations amount to mere data-gathering steps and require nothing unconventional or significant. *See Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067 (Fed. Cir.

2011) (analogizing "data gathering" to "insignificant extra-solution activity"). For example, the Specification explains that consumer-characteristic data may come from third-party sources via "*e.g.*, e-mails, downloaded FTP files, and XML feeds" or "by regular mail." Spec. ¶ 57. Hence, the data-collecting limitations do not help integrate the recited abstract ideas into a practical application.

Further, in *Flook* the Supreme Court decided that adjusting an alarm limit according to a mathematical formula was "post-solution activity" and insufficient to confer eligibility. *Parker v. Flook*, 437 U.S. 584, 590, 596–98 (1978). Similarly, the Federal Circuit has held that printing menu information constituted insignificant post-solution activity. *Apple*, 842 F.3d at 1241–42. Consistent with those decisions, the MPEP identifies printing "to output a report" as an example of insignificant post-solution activity. MPEP § 2106.05(g).

Here, the data-presenting limitations require no particular presentation tool and nothing unconventional or significant. Instead, they require nothing more than generating a generic "report that at least compares . . . resource usage data" in some unspecified way. Appeal Br. 22, 29, 32. Consistent with this, the Specification explains that a server may "generate[] an electronic report" and "communicate[] the report to the consumers" and may "print[] the report or provide[] the information to a printing system so that the data can be provided to the consumer via regular mail." Spec. ¶ 58. Just as printing menu information in *Apple* constituted insignificant post-solution activity, generating a generic report here constitutes insignificant post-solution activity. Hence, the data-presenting limitations do not help integrate the recited abstract ideas into a practical application.

Appellant argues that the independent claims "improve[] the functionality of the computer by reducing iterations performed by the computer." Appeal Br. 17; Reply Br. 4–5; *see* Appeal Br. 12–14, 16. Appellant also argues that "[r]educing iterations improves the efficiency and performance of the computer because it reduces processor usage, reduces memory usage, reduces internal communications and signaling between components, and reduces accesses to storage devices for retrieving new data that is processed during each iteration." Appeal Br. 17–18. To support those arguments, Appellant cites Specification paragraphs 47 and 53. *Id.* at 13–14, 17–18; *see* Reply Br. 4–5, 7.

Those arguments do not persuade us of Examiner error because the independent claims do not require performing an iterative process according to Specification paragraphs 47 and 53. *See* Appeal Br. 21–22, 27–32. For example, paragraph 47 explains that in some embodiments (1) "the range for at least one common criterion increases" as "the number of similar consumers selected decreases" and (2) "the range for at least one common criterion decreases" as "the number of similar consumers selected increases." Spec. ¶ 47. Due to this inverse relationship between range and number of similar consumers, the iterative process "more efficiently clos[es] in on the most similar consumers because there is no need to run many iterations using small increments." *Id.* Further, paragraph 53 explains that in some embodiments "removing two common criteria" in the next iteration "avoids running many iterations using small incremental changes." *Id.* ¶ 53, Fig. 9 (iteration 2). Paragraph 53 also explains that using a "small incremental" range increase when close to the predetermined number of

consumers may "prevent the process from significantly overshooting" the predetermined number of consumers. *Id.* ¶ 53, Fig. 9 (iteration 3).

In contrast to paragraphs 47 and 53, claim 1 specifies two broad options for abating in the next iteration: "abating . . . at least one criterion from the plurality of criteria, by at least one of: (i) removing at least one common criterion from the plurality of criteria; and (ii) increasing at least one range for at least one criterion of the plurality of criteria." Appeal Br. 22. Claims 17 and 18 specify similar options. *Id.* at 29, 31; *see id.* at 20.

The independent claims do not require abating based on an inverse relationship between range and number of similar consumers as disclosed in paragraph 47. Nor do they require removing two common criteria in the next iteration or using a "small incremental" range increase when close to the predetermined number of consumers as disclosed in paragraph 53. Due to their breadth, the claims do not capture the improvements described in the Specification. Improvements described in a specification but not claimed do not support patent eligibility. *See ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019); *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369–70 (Fed. Cir. 2018); *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1338–39 (Fed. Cir. 2017); *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1331–32 (Fed. Cir. 2017).

Each independent claim includes a "wherein" clause stating that "the abating reduces a number of iterations performed by the processor to define the data set of similar consumers." Appeal Br. 22, 29, 31. But the other limitations in each claim fail to detail a way to achieve that result. Hence, the "wherein" clause in each claim constitutes a result-oriented statement

insufficient to confer eligibility. *See ChargePoint*, 920 F.3d at 769–70 (citing *O'Reilly v. Morse*, 56 U.S. (15 How.) 62 (1853)); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1344–45 (Fed. Cir. 2018). "[A] result, even an innovative result, is not itself patentable." *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018).

Appellant argues that the claims improve "the existing technological process of processing consumer data." Appeal Br. 18. Appellant similarly argues that the claims improve "the existing technological process of processing and analyzing" consumer data. *Id.* at 14–15; *see id.* at 16.

We disagree that "processing and analyzing" consumer data constitutes a technological process. In *Flook*, for example, the Supreme Court did not view "processing and analyzing" alarm-limit data as a technological process. *See Flook*, 437 U.S. at 594–98. In *Bilski*, the Court did not view "processing and analyzing" commodity data as a technological process. *See Bilski*, 561 U.S. at 599, 609–13. And in *Alice*, the Court did not view "processing and analyzing" credit-and-debit data as a technological process. *See Alice*, 573 U.S. at 212–14 & n.2, 219–23.

As the Examiner properly reasons, Appellant has not "provided any evidence or technical reasoning that the claims improve some existing technological process or solve[] some technological problem in conventional industry practice." Ans. 6 (emphasis omitted). Thus, the Examiner correctly determines that the claims fail to "improve another technology or technical field." Non-Final Act. 4, 9–10; Ans. 8; *see* Non-Final Act. 5, 12.

Appellant analogizes the claims here to the claims in *Enfish*, the claims in *DDR Holdings*, and the claims in *BASCOM*. Appeal Br. 10–12, 14–15 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245

(Fed. Cir. 2014); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir.

2016); *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d

1341 (Fed. Cir. 2016)); *see* Reply Br. 3–4. But the claims here do not

resemble the claims in any of those cases.

In *DDR Holdings*, the Federal Circuit determined that certain claims

satisfied § 101 under *Mayo/Alice* step two because "the claimed solution

amount[ed] to an inventive concept for resolving [a] particular Internet-

centric problem," i.e., a challenge unique to the Internet. *DDR Holdings*,

773 F.3d at 1257–59; *see Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d

1138, 1151 (Fed. Cir. 2016) (noting that "[i]n *DDR Holdings*, we held that

claims 'directed to systems and methods of generating a composite web page

that combines certain visual elements of a "host" website with content of a

third-party merchant' contained the requisite inventive concept"). The

Federal Circuit explained that the patent-eligible claims specified "how

interactions with the Internet are manipulated to yield a desired result . . .

that overrides the routine and conventional sequence of events ordinarily

triggered by the click of a hyperlink." *DDR Holdings*, 773 F.3d at 1258.

The court reasoned that those claims recited a technological solution

"necessarily rooted in computer technology" that addressed a "problem

specifically arising in the realm of computer networks." *Id.* at 1257.

According to the Federal Circuit, "*DDR Holdings* does not apply

when . . . the asserted claims do not 'attempt to solve a challenge particular

to the Internet.'" *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*,

873 F.3d 1364, 1375 (Fed. Cir. 2017) (quoting *In re TLI Commc'ns LLC

Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016)). Unlike the patent-eligible

claims in *DDR Holdings*, the claims here do not attempt to solve a challenge

particular to the Internet. *See* Appeal Br. 21–22, 27–32. Among other things, the claims do not recite a network or even require a connection between two different devices.

In *Enfish*, the Federal Circuit decided that the claims satisfied § 101 under *Mayo/Alice* step one because they recited a "specific improvement to the way computers operate," i.e., an improved database configuration that permitted faster and more efficient searching. *Enfish*, 822 F.3d at 1330–33, 1336, 1339. Further, the Federal Circuit has explained that the claims in *Enfish* "did more than allow computers to perform familiar tasks with greater speed and efficiency" and "actually permitted users to launch and construct databases in a new way." *Finjan*, 879 F.3d at 1305.

Unlike the claims in *Enfish*, the claims here do not improve computer functionality itself. *See* Non-Final Act. 2–3; Ans. 3–4; *see also Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017) (explaining that the claims in *Enfish* "focused on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity"). As the Examiner correctly determines, the claims fail to "improve the functioning of the computer itself." Non-Final Act. 4, 9–10 (emphasis omitted); Ans. 8; *see* Non-Final Act. 5, 12. For instance, the claims do not recite an advance in hardware or software that causes a computer itself to operate faster or more efficiently. Further, the claims employ a "processor" and a "memory" or "computer readable medium" in their ordinary capacities to perform "basic calculation, storage, and transmission functions." *See* Appeal Br. 21–22, 27–32; Spec. ¶¶ 61, 64, 66, 68; *see also Alice*, 573 U.S. at 226.

In *BASCOM*, the claims recited a "specific method of filtering Internet content" requiring "the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user." *BASCOM*, 827 F.3d at 1345–46, 1350. The Federal Circuit decided that the claims satisfied § 101 under *Mayo/Alice* step two. *Id.* at 1349–51. The court reasoned that the claims covered "a technology-based solution . . . to filter content on the Internet that overcomes existing problems with other Internet filtering systems" and "improve[s] an existing technological process." *Id.* at 1351 (citing *Alice*, 573 U.S. at 223); *see Alice*, 573 U.S. at 223 (explaining that "the claims in *Diehr* were patent eligible because they improved an existing technological process").

Unlike the claims in *BASCOM*, the claims here do not cover a technology-based solution that improves an existing technological process. *See* Non-Final Act. 4–5, 9–10, 12; Ans. 8. As the Examiner correctly determines, the claims do not "recite an improvement in another technology or technical field." Non-Final Act. 12.

The 2019 Guidance identifies exemplary considerations indicating that additional elements in claims "may have integrated the [judicial] exception into a practical application." 84 Fed. Reg. at 55 & nn.25–29 (citing MPEP §§ 2106.05(a)–(c), 2106.05(e)). As the above analysis indicates, we have evaluated Appellant's arguments in light of those exemplary considerations. For the reasons discussed above, however, we determine that each independent claim as a whole does not integrate the recited abstract ideas into a practical application. Thus, each claim is directed to a judicial exception and does not satisfy § 101 under *Mayo/Alice* step one.

Mayo/Alice Step Two: PTO Step 2B

Because we determine that each independent claim is directed to a judicial exception, we "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements" add enough to transform the "nature of the claim" into "significantly more" than the judicial exception. *See Alice*, 573 U.S. at 217–18, 221–22 (quoting *Mayo*, 566 U.S. at 78–79). Under *Mayo/Alice* step two, we "look with more specificity at what the claim elements add, in order to determine 'whether they identify an "inventive concept" in the application of the ineligible subject matter' to which the claim is directed." *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016) (quoting *Elec. Power*, 830 F.3d at 1353). An "inventive concept" requires more than "well-understood, routine, conventional activity already engaged in" by the relevant community. *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 (Fed. Cir. 2016) (quoting *Mayo*, 566 U.S. at 79–80). But a "non-conventional and non-generic arrangement of known, conventional pieces" may provide an "inventive concept" satisfying step two. *BASCOM*, 827 F.3d at 1350.

As discussed above, the independent claims recite computer components, i.e., a "processor" and a "memory" or "computer readable medium." Appeal Br. 21–22, 27–32. The Examiner correctly finds that the claimed computer components correspond to "a generic computer performing generic computer functions." Non-Final Act. 4, 9–10; Ans. 8; *see* Non-Final Act. 11–12; Ans. 4, 6–7.

Consistent with the Examiner's findings, the Specification describes the claimed computer components generically and evidences their

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conventional nature. *See*, *e.g.*, Spec. ¶¶ 61, 64, 66, 68. As an example, the Specification explains that a "processor" includes "a microprocessor, microcontroller, digital signal processor, or general purpose computer." *Id.* ¶ 64. As another example, the Specification explains that a "memory" or "storage medium" includes "a semiconductor memory device (*e.g.*, a RAM, ROM, PROM, EEPROM, or Flash-Programmable RAM), a magnetic memory device (*e.g.*, a diskette or fixed disk), an optical memory device (*e.g.*, a CD-ROM), a PC card (*e.g.*, PCMCIA card), or other memory device." *Id.* ¶¶ 66, 68.

Simply implementing an abstract idea using conventional machines or devices "add[s] nothing of substance." *See Alice*, 573 U.S. at 226–27; *see also Mayo*, 566 U.S. at 84–85 (explaining that "simply implementing a mathematical principle on a physical machine" does not suffice for patent eligibility) (citing *Gottschalk v. Benson*, 409 U.S. 63, 64–65, 71 (1972)).

In addition, court decisions have recognized that generic computer components operating to collect, manipulate, and communicate data are well understood, routine, and conventional to a skilled artisan. *See*, *e.g.*, *Alice*, 573 U.S. at 226–27; *SAP Am.*, 898 F.3d at 1164–65 & n.1, 1170; *Apple*, 842 F.3d at 1234, 1241–42; *Symantec*, 838 F.3d at 1316–20; *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1334 (Fed. Cir. 2015); *Ultramercial*, 772 F.3d at 715–16; *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014).

For example, the system claims in *Alice* recited a "data processing system" (e.g., a "processor") with a "communications controller" and a "data storage unit" (e.g., a "memory" or "computer readable medium"). *Alice*, 573 U.S. at 226. The Supreme Court decided that the system claims failed

to satisfy § 101 because "[n]early every computer" includes those generic components for performing "basic calculation, storage, and transmission functions" and the system claims simply implemented the same abstract idea as the method claims. *Id.* at 226–27. The Court reasoned that (1) "the system claims are no different from the method claims in substance"; (2) "[t]he method claims recite the abstract idea implemented on a generic computer"; and (3) "the system claims recite a handful of generic computer components configured to implement the same idea." *Id.* at 226.

Here, the claimed "processor" and "memory" or "computer readable medium" perform "basic calculation, storage, and transmission functions" that nearly every computer performs. Appeal Br. 21–22, 27–32; *see* Non-Final Act. 4, 9–12; Ans. 4, 6–8. For instance, nearly every computer includes a "processor" for manipulating data and a "memory" or "computer readable medium" for storing data. Hence, those generic computer components do not satisfy the "inventive concept" requirement. *See*, *e.g.*, *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (holding that "generic computer components such as an 'interface,' 'network,' and 'database'" did not satisfy the "inventive concept" requirement); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1095–96 (Fed. Cir. 2016) (describing the claimed "microprocessor" and "user interface" as "generic computer elements"); *Prism Techs. LLC v. T-Mobile USA, Inc.*, 696 F. App'x 1014, 1016–17 (Fed. Cir. 2017) (describing the claimed "authentication server," "access server," "Internet Protocol network," "client computer device," and "database" as "indisputably generic computer components").

We reach a similar conclusion concerning the data-collecting and data-presenting limitations, e.g., claim 1's "retrieving" and "generating" limitations. As discussed above, the data-collecting limitations amount to mere data-gathering steps and require nothing unconventional or significant. As also discussed above, the data-presenting limitations require no particular presentation tool and nothing unconventional or significant. Consequently, the claimed insignificant extra-solution activity does not satisfy the "inventive concept" requirement. *See*, *e.g.*, *Mayo*, 566 U.S. at 79–80; *Flook*, 437 U.S. at 590; *Apple*, 842 F.3d at 1241–42; *OIP Techs.*, 788 F.3d at 1363–64; *CyberSource*, 654 F.3d at 1370.

Appellant urges that "[g]eneric computers do not perform the novel iterative process" according to the claims and that "a computer must have something more, something significantly more in order to perform[] the claimed invention." Appeal Br. 19. But a "claimed invention's use of the ineligible concept," e.g., an abstract idea, "cannot supply the inventive concept that renders the invention 'significantly more' than that ineligible concept." *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). "[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered" abstract idea "cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility." *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016). Hence, Appellant wrongly relies on the recited abstract ideas to satisfy the "inventive concept" requirement.

Appellant argues that "[a]ll rejections based on prior art have been overcome" and that the claims "distinguish[] over the prior art." Appeal Br. 18. But the "search for a § 101 inventive concept" differs "from

demonstrating § 102 novelty." *Synopsys*, 839 F.3d at 1151; *see Two-Way Media*, 874 F.3d at 1340. "The 'novelty' of any element[s] or steps" in a claim or even the claim itself "is of no relevance in determining whether the subject matter of a claim" satisfies § 101 because the question "whether a particular invention is novel is 'wholly apart from whether the invention falls into a category of statutory subject matter.'" *Diehr*, 450 U.S. at 189–90 (quoting *In re Bergy*, 596 F.2d 952, 961 (CCPA 1979)). Thus, the absence of anticipation and obviousness "does not resolve the question of whether the claims embody an inventive concept" under *Mayo/Alice* step two. *Symantec*, 838 F.3d at 1315; *see SAP Am.*, 898 F.3d at 1163.

Appellant asserts that "the Examiner has not supplied the appropriate evidence" according to *Berkheimer* "to support a conclusion that the claim elements, individually or as a whole, are 'well-understood, routine, and conventional.'" Reply Br. 6; *see id.* at 7. But Appellant concedes that a "citation to one or more . . . court decisions" may demonstrate that additional elements are well understood, routine, and conventional to a skilled artisan. *Id.* at 7–8. As discussed above, court decisions have recognized that generic computer components operating to collect, manipulate, and communicate data are well understood, routine, and conventional to a skilled artisan. *See*, *e.g.*, *Alice*, 573 U.S. at 226–27; *SAP Am.*, 898 F.3d at 1164–65 & n.1, 1170; *Apple*, 842 F.3d at 1234, 1241–42; *Symantec*, 838 F.3d at 1316–20; *Versata*, 793 F.3d at 1334; *Ultramercial*, 772 F.3d at 715–16; *buySAFE*, 765 F.3d at 1355.

Moreover, in *Berkheimer* the Federal Circuit decided that disputed factual issues did not preclude a summary judgment of ineligibility for independent claim 1 and dependent claims 2, 3, and 9. *Berkheimer*,

881 F.3d at 1369–70. In contrast to those claims, the court decided that disputed factual issues precluded a summary judgment of ineligibility for dependent claims 4–7. *Id.* at 1370. The court said, "Whether claims 4–7 perform well-understood, routine, and conventional activities to a skilled artisan is a genuine issue of material fact making summary judgment inappropriate with respect to these claims." *Id.* The court explained that "improvements [described] in the specification, to the extent they are captured in the claims, create a factual dispute regarding whether the invention describes well-understood, routine, and conventional activities." *Id.* at 1369. Because claims 1–3 and 9 did not "capture the purportedly inventive concepts" described in the specification, the court affirmed a summary judgment of ineligibility for those claims. *Id.* at 1370.

Here, as discussed above, the independent claims do not "capture the purportedly inventive concepts" described in the Specification. Thus, they parallel patent-ineligible claims 1–3 and 9 in *Berkheimer*.

Appellant asserts that the claims do not "preempt all ways of processing characteristic data and resource usage data on a computer." Appeal Br. 19; *see* Reply Br. 9. Appellant also asserts that "[o]ther techniques for processing or selecting consumer data can be performed without the claimed actions and do not require an iterative process, and do not require removing criterion in the manner claimed." Appeal Br. 19.

Appellant's assertions about preemption do not persuade us of Examiner error. While preemption may denote patent ineligibility, its absence does not establish patent eligibility. *See FairWarning*, 839 F.3d at 1098. As the Examiner properly reasons, "preemption is not a test for patent eligibility." Ans. 9. For claims covering a patent-ineligible concept,

preemption concerns "are fully addressed and made moot" by an analysis under the *Mayo/Alice* framework. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

"Whether a combination of claim limitations supplies an inventive concept that renders a claim 'significantly more' than an abstract idea to which it is directed is a question of law." *BSG Tech*, 899 F.3d at 1290. Given the claimed generic computer components that perform generic computer functions and the claimed insignificant extra-solution activity, we conclude that the combination of limitations in each independent claim does not supply an "inventive concept" that renders the claim "significantly more" than an abstract idea. Thus, each claim does not satisfy § 101 under *Mayo/Alice* step two.

Summary for Patent Eligibility

For the reasons discussed above, each independent claim fails to satisfy § 101 under *Mayo/Alice* step one and step two. Hence, we sustain the § 101 rejection of the independent claims. We also sustain the § 101 rejection of the dependent claims because Appellant does not argue eligibility separately for them. *See* 37 C.F.R. § 41.37(c)(1)(iv).

CONCLUSION

We affirm the Examiner's decision to reject claims 1–18.

In summary:

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1–18	101	Eligibility	1–18	

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).

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