UNITED STATES PATENT AND TRADEMARK OFFICE

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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 BRANDON ASHLEY SILVERMAN and MATTHEW NOCE
MURPHY GARMUR

———————

Appeal 2019-001210
Application 14/564,903
Technology Center 2100

———————

BEFORE ALLEN R. MACDONALD, JEREMY J. CURCURI, and
DAVID J. CUTITTA II, *Administrative Patent Judges.*

CURCURI, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the
Examiner's decision to reject claims 1, 2, 4–7, 9, 11, 13, 14, and 16–20. We
have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the word "Appellant" to refer to "applicant" as defined in 37
C.F.R. § 1.42(a). Appellant identifies the real party in interest as Facebook,
Inc. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claims are directed to "[i]dentifying trending content on a social networking platform." Spec., Title. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A computer-implemented method, comprising:

obtaining, at a server, a first post from a source on a social networking platform through one or more application programming interfaces;

determining, at the server, a first engagement metric for the first post during each of a predetermined sequence of time periods, wherein each succeeding time period in the predetermined sequence of time periods is greater in length than that succeeding time period's preceding time period as described by a geometric sequence, and wherein each succeeding time period starts from an end of that succeeding time period's preceding time period;

determining, at the server, a second engagement metric for each of a plurality of second posts during each of the predetermined sequence of time periods;

determining, at the server and for each of the predetermined sequence of time periods, a representative engagement metric based on the second engagement metric associated with the predetermined time period for each of the second posts;

comparing, at the server, the first engagement metric associated with at least one of the predetermined sequence of time periods to the representative engagement metric associated with that predetermined time period;

determining, at the server, a relative performance of the first post based on the step of comparing; and

identifying, at the server, a trend of the first post based on the relative performance of the first post over the predetermined sequence of time periods.

REJECTION

Claims 1, 2, 4–7, 9, 11, 13, 14, and 16–20 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more. Final Act. 3–6.

OPINION

The Judicial Exception Rejection of Claims 1, 2, 4–7, 9, 11, 13, 14, and 16–20

Claims 1, 13, and 19 are the independent claims. The Examiner determines the independent claims are "directed to the abstract idea of scoring engagement of posts." Final Act. 3; *see also* Final Act. 4 (citing to several court cases and explaining "[a]ll of these concepts relate to means of organizing information"); Ans. 3 ("The problem to be solved in the instant invention is measuring the relative performance of a post on social media. This has pre-computer analogues, such as measuring relative viewership of television shows, relative readership of newspaper articles, and the like."). The Examiner further determines the claims "do not include additional elements that are sufficient to amount to significantly more than the judicial exception." Final Act. 3; *see also* Final Act. 4–5 ("Applicant's specification [0022], [0024] specifically states that a generic computing device is suitable."); Ans. 4–5 ("The sole difference between the claimed invention and the prior art solely rests in the geometric sequence of time periods in measuring engagement. This is not an 'inventive concept'.").

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and

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abstract ideas" are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court's two-part framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.,* the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); "tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Court held that "a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 187; *see also id.* at 191 ("We view respondents' claims as

nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Court also indicated that a claim "seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citation omitted) (citing *Benson* and *Flook*); *see, e.g., id*. at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

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

B. USPTO Section 101 Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance").[2] "All USPTO personnel are, as a matter of

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[2] In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance.

internal agency management, expected to follow the guidance." *Id.* at 51; *see also* October 2019 Update at 1.

Under the 2019 Revised Guidance and the October 2019 Update, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) ("Step 2A, Prong One"); and
>
> (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) ("Step 2A, Prong Two").[3]

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

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, 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

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USPTO, *October 2019 Update: Subject Matter Eligibility* (the "October 2019 Update") (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

[3] This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Revised Guidance - Section III(A)(2), 84 Fed. Reg. 54–55.

(4) simply appends well-understood, routine, conventional activities

previously known to the industry, specified at a high level of

generality, to the judicial exception.

2019 Revised Guidance, 84 Fed. Reg. at 52–56.

Are the claims patent-eligible?

<u>Step 1</u>

Claim 1 recites a method, which falls within the "process" category of 35 U.S.C. § 101. Claim 13 recites a non-transitory computer-readable medium, which falls within the "manufacture" category of 35 U.S.C. § 101. Claim 19 recites a system, which falls within the "machine" category of 35 U.S.C. § 101. Thus, we must determine whether the claim recites a judicial exception and fails to integrate the exception into a practical application. *See* 2019 Revised Guidance, 84 Fed. Reg. at 54–55. If both elements are satisfied, the claim is directed to a judicial exception under the first step of the *Alice/Mayo* test. *See id.*

<u>Step 2A, Prong One</u>

Independent claim 1 recites the following steps:

[i] obtaining, at a server, a first post from a source on a social networking platform through one or more application programming interfaces;

[ii] determining, at the server, a first engagement metric for the first post during each of a predetermined sequence of time periods, wherein each succeeding time period in the predetermined sequence of time periods is greater in length than that succeeding time period's preceding time period as described by a geometric sequence, and wherein each succeeding time period starts from an end of that succeeding time period's preceding time period;

[iii] determining, at the server, a second engagement metric for each of a plurality of second posts during each of the predetermined sequence of time periods;

[iv] determining, at the server and for each of the predetermined sequence of time periods, a representative engagement metric based on the second engagement metric associated with the predetermined time period for each of the second posts;

[v] comparing, at the server, the first engagement metric associated with at least one of the predetermined sequence of time periods to the representative engagement metric associated with that predetermined time period;

[vi] determining, at the server, a relative performance of the first post based on the step of comparing; and

[vii] identifying, at the server, a trend of the first post based on the relative performance of the first post over the predetermined sequence of time periods.

Step [i] recites collecting data ("obtaining . . . a first post"), which is an "observation." 2019 Revised Guidance, 84 Fed. Reg. at 52. Thus, step [i] recites the abstract concept of "[m]ental processes." *Id.*

Steps [ii]–[vii] recite analyzing data ("determining . . . a first engagement metric," "determining . . . a second engagement metric," "determining . . . a representative engagement metric," "comparing . . . the first engagement metric . . . to the representative engagement metric," "determining . . . a relative performance," and "identifying . . . a trend of the first post"), which is a combination of "observation, evaluation, judgment, opinion." 2019 Revised Guidance, 84 Fed. Reg. at 52. Thus, steps [ii]–[vii] also recite the abstract concept of "[m]ental processes." *Id.*

Claim 1, therefore, recites collecting and analyzing data. Such mental processes, which could alternatively be performed by a human using pen and

paper, have been held by the courts to be abstract ideas. The Federal Circuit has held that if a method can be performed by human thought alone, or by a human using pen and paper, it is merely an abstract idea and is not patent-eligible under § 101. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) ("[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101."). Similarly, the Federal Circuit has found claims directed to "collecting information, analyzing it, and displaying certain results of the collection and analysis" as directed to a patent-ineligible abstract idea. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Accordingly, the steps [i]–[vii] recited in independent claim 1 all describe an abstract idea. The abstract idea, even when automated to reduce the burden on the user of what once could have been done with pen and paper, remains an abstract idea. *CyberSource*, 654 F.3d at 1375 ("That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.").

Thus, we determine claim 1 recites a judicial exception. For these same reasons, we also determine claims 13 and 19 recite a judicial exception.

Step 2A, Prong Two

Because claims 1, 13, and 19 recite a judicial exception, we next determine if the claims recite additional elements that integrate the judicial exception into a practical application.

In addition to the limitations of claim 1, discussed above, that recite abstract concepts, steps [i]–[vii] of claim 1 further recite a "server" and a "social networking platform." Claim 13 further recites a "non-transitory

computer-readable medium" and "one or more computers." Claim 19 further

recites "one or more computers" and "one or more storage devices."

The Specification does not provide additional details that would

distinguish these additional limitations from a generic implementation of the

abstract idea. Regarding the "server," "non-transitory computer-readable

medium," "one or more storage devices," and "one or more computers," the

Specification describes the following:

> Computing system 108 may be implemented using one or more computing devices (e.g., servers). The one or more computing devices on which computing system 108 is implemented may have internal or external storage components storing data and programs such as an operating system and one or more application programs. The one or more application programs may be implemented as instructions that are stored in the storage components and that, when executed, cause the one or more computing devices to provide the features ascribed herein to the computing system 108. Furthermore, the one or more computing devices on which computing system 108 is implemented each may include one or more processors for executing instructions stored in storage and/or received from one or more other electronic devices, for example, over network 106. In addition, these computing devices also typically may include network interfaces and communication devices for sending and receiving data.

Spec. ¶ 28; *see also* Spec. ¶ 29 ("A social post analysis application on

computer system 108 may analyze the extracted or received information to

identify trending user content within the electronic social networking

platform.").

Regarding the "social networking platform," the Specification

describes "[e]lectronic social networking platform 102 may be implemented

using one or more computing devices (e.g., servers) configured to provide a

service to one or more client devices (e.g., computing devices 104(a)–

104(n)) connected to electronic social networking platform 102 over network 106." Spec. ¶ 23.

We do not find the recited computer-related limitations are sufficient to integrate the judicial exception into a practical application. Specifically, there is no improvement to the functioning of the computer, but, instead, the computer merely implements the abstract idea. In this case, we do not see any particular machine or manufacture that is integral to the claim; nor do we see any transformation. That is, we do not see any of the additionally recited elements applying or using the judicial exception in any meaningful way beyond generally linking the judicial exception to the recited elements.

Put another way, the claim recites collecting and analyzing data— mental processes. The additional recited claim elements merely implement these mental processes, and the Specification does not provide additional details that would distinguish the implementation from a generic implementation. *See* Spec. ¶¶ 23, 28, 29.

Further, regarding the "social networking platform" and claim 1's first step [i] of "obtaining, at a server, a first post from a source on a social networking platform through one or more application programming interfaces," this also does not add any meaningful limitations to the abstract idea because it merely is directed to the insignificant extra-solution activity of data gathering or selecting a particular data source or type of data to be manipulated. *See* MPEP § 2106.05(g).

Thus, we determine claim 1 is directed to a judicial exception because claim 1 does not recite additional elements that integrate the recited judicial exception into a practical application. For these same reasons, we also determine claims 13 and 19 are directed to a judicial exception.

Is there something else in the claims that ensures that they are directed to significantly more than a patent ineligible concept?

Step 2B

Because claims 1, 13, and 19 are directed to a judicial exception, we must determine, according to *Alice*, whether these claims recite an element, or combination of elements that is enough to ensure that the claim is directed to significantly more than a judicial exception.

Regarding the "server," "non-transitory computer-readable medium," "one or more storage devices," "one or more computers," and "social networking platform," the conventional or generalized functional terms by which the computer components are described reasonably indicate that Appellant's Specification discloses conventional components. *See* Spec. ¶¶ 23, 28, 29. Further, the Specification does not provide additional details about the computer that would distinguish the recited components from generic implementation individually and generic implementation in the combination. *See* Spec. ¶¶ 23, 28, 29. Thus, the claims do no more than require generic computer elements to perform generic computer functions, rather than improve computer capabilities.

Regarding the "obtaining" step recited in claims 1, 13, and 19, our reviewing court has recognized that receiving, processing, and storing data as well as receiving or transmitting data over a network are well-understood, routine, and conventional activities. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (generic computer components, such as an "interface," "network," and "database," fail to satisfy the inventive concept requirement); *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607 (Fed. Cir. 2016); *Elec. Power*, 830 F.3d 1350. There is no indication that the recited elements override the conventional use

of known features or involve an unconventional arrangement or combination of elements such that the particular combination of generic technology results in anything beyond well-understood, routine, and conventional *data gathering and output*. *Alice*, 573 U.S. at 223 ("[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention."); *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1366 (Fed. Cir. 2020) ("[T]he invocation of 'already-available computers that are not themselves plausibly asserted to be an advance . . . amounts to a recitation of what is well-understood, routine, and conventional.'" (quoting *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1170 (Fed. Cir. 2018))); *buySAFE 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.").

Accordingly, we determine claims 1, 13, and 19 are not directed to significantly more than a patent ineligible concept. We also determine that claims 2, 4–7, 9, 11, 14, 16–18, and 20 are not directed to significantly more than a patent ineligible concept.

Appellant's Arguments

Appellant presents the following principal arguments:

i.   The claims are not directed to an abstract idea because the claims are necessarily rooted in computer technology. *See* Appeal Br. 7–10. For example, the claims "are directed to a computer-implemented solution to address the problems with existing social networks not allowing users or third parties to measure the post performances within the social network platform or across multiple social network platforms, similar to *DDR*

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Holdings[4], which provides a composite web page to address the host's problem of customers leaving its web page." Appeal Br. 9; *see also* Reply Br. 4–5.

 ii. The claims are necessarily tied to a machine. *See* Appeal Br. 11–12. For example, the "obtaining" step "is necessarily performed by a machine, such as a server." Appeal Br. 11.

 iii. The claims recite significantly more than an abstract idea because the claims include in inventive concept distinct from the prior art. *See* Appeal Br. 12–13; *see also* Reply Br. 3–4.

 iv. The claims, similar to *BASCOM[5]*, recite elements that in combination provide an inventive concept "by allowing a server or a third-party server to effectively determine engagement performances of posts from one or multiple social network platforms via a sequence of time periods as described by a geometric sequence." Appeal Br. 15; *see also* Appeal Br. 13–14; Reply Br. 5–7.

 v. The Examiner does not set forth a *prima facie* case that the dependent claims are unpatentable. *See* Appeal Br. 15–17.

 vi. "Applicant has been provided with no factual support for the conclusion that any of the specific features of the independent claims were well-known, routine, and conventional at the time of Appellant's invention." Reply Br. 2.

 Appellant's arguments do not show Examiner error. We apply the 2019 Revised Guidance and agree with the Examiner's determination that

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[4] Citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1258 (Fed. Cir. 2014).

[5] Citing *Bascom Global Internet Servs. v. AT&T Mobility, LLC*, 827 F.3d 1343–45 (Fed. Cir. 2016).

the claims are directed to an abstract idea without significantly more. Specifically, we determine the overall process provided by the claims describes a combination of "observation, evaluation, judgment, opinion." 2019 Revised Guidance, 84 Fed. Reg. at 52. Thus, the overall process provided by the claims recites mental processes that are recognized as abstract ideas. *Id.* Further, for the reasons discussed above, we determine the claims are directed to these mental processes without significantly more.

Regarding Appellant's arguments (i), (ii), and (iii), Appellant's identified improvements are improvements to the abstract idea because, for example, data is collected ("obtaining . . . a first post"), and data is analyzed ("determining . . . a first engagement metric," "determining . . . a second engagement metric," "determining . . . a representative engagement metric," "comparing . . . the first engagement metric . . . to the representative engagement metric," "determining . . . a relative performance," and "identifying . . . a trend of the first post"), which are a combination of "observation, evaluation, judgment, opinion." *Id.* Thus, the identified improvements recite the abstract concept of "[m]ental processes." *Id*. In reaching our conclusion, we determine, on the record before us, the claim limitations do not improve the functionality of the various hardware components, nor do they achieve an improved technological result in conventional industry practice. *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016).

Further regarding Appellant's argument (ii), we determine the step of "obtaining" is directed to the insignificant extra-solution activity of data gathering or selecting a particular data source or type of data to be manipulated. *See* MPEP § 2106.05(g). Thus, we determine the claims are not necessarily tied to a machine.

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Further regarding Appellant's argument (iii), regarding any novelty of the claimed approach to identifying trending content on a social networking platform, these arguments do not show error in the Examiner's conclusions because the argued elements are part of the abstract idea. The claims do no more than require generic computer elements to perform generic computer functions, rather than improve computer capabilities. Put another way, "[t]he 'novelty' of any element or steps in a process, or even of the process itself, is of *no relevance* in determining whether the subject matter of a claim falls within the [section] 101 categories of possibly patentable subject matter." *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1315 (Fed. Cir. 2016) (quoting *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981)).

Similarly, Appellant's argument (iv) also does not show any error for the same reasons discussed above when addressing arguments (i)–(iii).

Regarding Appellant's argument (v), this argument does not show any error because Appellant has not raised any particularized arguments with respect to any of the dependent claims.

Regarding Appellant's argument (vi), this argument does not show any error because, as we explain above, the Specification does not provide additional details about the computer that would distinguish the recited components from conventional components, and from generic implementation individually and generic implementation in the combination. *See* Spec. ¶¶ 23, 28, 29.

We, therefore, sustain the Examiner's rejection of claim 1. We also sustain the Examiner's rejection of claims 2, 4–7, 9, 11, 13, 14, and 16–20.

CONCLUSION

The Examiner's rejection is affirmed.

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DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 4–7, 9, 11, 13, 14, 16–20	101	Eligibility	1, 2, 4–7, 9, 11, 13, 14, 16–20	

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED