UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/080,038	11/14/2013	Assaf Hallak	3689US01/209448	3231

121363   7590   11/26/2019

Shook, Hardy & Bacon L.L.P.
(Adobe Inc.)
Intellectual Property Department
2555 Grand Blvd
Kansas City, MO 64108

EXAMINER
REFAI, SAM M

ART UNIT	PAPER NUMBER
3681	

NOTIFICATION DATE	DELIVERY MODE
11/26/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPRCDKT@SHB.COM
docketing.shb@clarivate.com
seaton@shb.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ASSAF HALLAK and GEORGIOS THEOCHAROUS

Appeal 2018-004617
Application 14/080,038
Technology Center 3600

Before JENNIFER S. BISK, LARRY J. HUME, and
JULIET MITCHELL DIRBA, *Administrative Patent Judges.*

HUME, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant,[1] Adobe Inc., appeals from the Examiner's decision rejecting claims 1–20, which are all claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

---

[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as ADOBE SYSTEMS INCORPORATED, a corporation duly organized and existing under the laws of the State of Delaware, United States of America. Br. 3.

CLAIMED SUBJECT MATTER[2]

The claims are directed to testing a marketing strategy offline using an approximate simulator. *See* Spec. (Title). In particular, Appellant's disclosed embodiments and claimed invention "relate[] generally to data processing, and in a specific example embodiment, to testing a marketing strategy offline using an approximate simulator." Spec. ¶ 1.

Claim 1, reproduced below, is representative of the subject matter on appeal:

> 1. A computer-implemented method performed by one or more hardware devices the method comprising:
>
> receiving, over a network, real world data from a website server, the real world data indicating a number of logged user interactions with at least one a website provided by the website server;
>
> applying one or more policies to simulators;
>
> running the simulators, each simulator generating a respective predicted result for each step in a series of steps of providing information to a user, each simulator implementing a policy of the one or more one policies offline, the policy comprising rules defining the information to provide to the user at the step and how often to provide the information to the user in order to maximize a number of user interactions with the website;

---

[2] Our decision relies upon Appellant's Appeal Brief ("Br.," filed Sept. 5, 2017); Examiner's Answer ("Ans.," mailed Dec. 21, 2017); Non-Final Office Action ("Non-Final Act.," mailed Mar. 3, 2017); and the original Specification ("Spec.," filed Nov. 14, 2013) Appellant did not file a Reply Brief in response to the factual findings and legal conclusions in the Examiner's Answer.

receiving simulated data indicating for each simulator of the simulators, the respective predicted result at each of the steps;

for each simulator of the simulators, computing from the received simulated data and the received real world data, errors between the number of logged user interactions and the respective predicted result at each of the steps, and from the errors, a bound on a lifetime difference between the number of logged user interactions and a cumulative number of simulated user interactions predicted by the simulator;

ranking the simulators by the computed bounds; and

based on the ranking of the simulators, transmitting data that causes the web server to implement at least one of a given simulator of the simulators and the policy implemented by the given simulator on the website.

REJECTIONS

R1.   Claims 1–20 stand rejected under 35 U.S.C. § 112(b) or 35 U.S.C. § 112 (pre–AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre–AIA, the applicant, regards as the invention. Non-Final Act. 3.[3]

R2.   Claims 1–20 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or abstract idea) without significantly more. Non-Final Act. 4.

---

[3] We note Appellant offers no arguments concerning indefiniteness Rejection R1 in the Appeal Brief. Arguments not made are waived.

CLAIM GROUPING

Based on Appellant's arguments (Br. 7–19) and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of patent-ineligible subject matter Rejection R2 of claims 1–20 on the basis of representative claim 1. We address indefiniteness Rejection R1 of claims 1–20, not argued separately, *infra*.[4]

ISSUES AND ANALYSIS

In reaching this decision, we consider all evidence presented and all arguments actually made by Appellant. To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv).

We disagree with Appellant's arguments with respect to claims 1–20 and, unless otherwise noted, we incorporate by reference herein and adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken, and (2) the reasons and rebuttals set forth in the Examiner's Answer in response to Appellant's arguments. We highlight and address specific findings and arguments regarding claim 1 for emphasis as follows.

---

[4] "Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately." 37 C.F.R. § 41.37(c)(1)(iv). In addition, when Appellant does not separately argue the patentability of dependent claims, the claims stand or fall with the claims from which they depend. *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

1.   § 112(b) Rejection R1 of Claims 1–20

Issue 1

Did the Examiner err in rejecting independent claims 1–20 under 35 U.S.C. § 112(b) as being indefinite?

Analysis

Appellant provides no argument against Rejection R1, but instead alleges "[i]n the Examiner Interview of April 17, 2017, Appellant and the Examiner reached an agreement on a trivial amendment to address the 35 U.S.C. § 112(b) rejection, which can be entered after appeal." Br. 3.

On this record, the Examiner has not withdrawn the indefiniteness rejection of claims 1–20, and no amendment to the claims addressing this rejection has been made of record. Accordingly, we *pro forma* affirm Rejection R1 under 35 U.S.C. § 112(b) of claims 1–20.

2.   § 101 Rejection R2 of Claims 1–20

Issue 2

Appellant argues (Br. 7–19) the Examiner's rejection of claim 1 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter is in error. These contentions present us with the following issue:

Under the USPTO's Revised Guidance, informed by our governing case law concerning 35 U.S.C. § 101, is claim 1 patent-ineligible under § 101?

Appeal 2018-004617
Application 14/080,038

Principles of Law

A.   35 U.S.C. § 101

An invention is patent-eligible if it is a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101.[5] 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. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (citing *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court's two-step framework, described in *Mayo* and *Alice*. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217–18 (2014) (citing *Mayo*, 566 U.S. at 75–77). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 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);

_____

[5] This threshold analysis of whether a claim is directed to one of the four statutory categories of invention, i.e., a process, machine, manufacture, or composition of matter, is referred to as "*Step 1*" in the USPTO's patent-eligibility analysis under § 101. MPEP § 2106.

6

mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diehr*, 450 U.S. at 191); "tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 187 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held "[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 187; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Supreme Court also indicated that a claim "seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (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.").

Abstract ideas may include, but are not limited to, fundamental economic practices, methods of organizing human activities, and mathematical formulas or relationships. *Alice*, 573 U.S. at 217–21. Under this guidance, we must therefore ensure at step one that we articulate what

7

the claims are directed to with enough specificity to ensure the step one inquiry is meaningful. *Id.* at 217 ("[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law.").

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 (citation omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

B.   USPTO Revised Guidance

The PTO recently published revised guidance in the Federal Register concerning the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (January 7, 2019) (hereinafter "Revised Guidance") (https://www.govinfo.gov/content/pkg/FR-2019-01-07/pdf/2018-28282.pdf).

Under the Revised Guidance, 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);[6] and

      (2) additional elements that integrate the judicial exception into a practical application (*see* Manual for Patent Examining Procedure ("MPEP") §§ 2106.05(a)–(c), (e)–(h)).[7]

See Revised Guidance 52–53.

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

      (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)); or

      (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.[8]

See Revised Guidance 54–56.

Step 2A(i) – Abstract Idea

Informed by our judicial precedent, the Revised Guidance extracts and synthesizes key concepts identified by the courts as abstract ideas to explain that the abstract idea exception includes the following groupings of subject matter, when recited as such in a claim limitation:

      (a) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;

---

[6] Referred to as "*Revised Step 2A, Prong 1*" in the Revised Guidance (hereinafter "*Step 2A(i)*").

[7] Referred to as "*Revised Step 2A, Prong 2*" in the Revised Guidance (hereinafter "*Step 2A(ii)*").

[8] Items (3) and (4) continue to be collectively referred to as "*Step 2B*" of the Supreme Court's two-step framework, described in *Mayo* and *Alice*.

(b) Certain methods of organizing human activity — fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions); and

(c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).

Revised Guidance 52 (footnotes omitted).

Under the Revised Guidance, if the claim does not recite a judicial exception (a law of nature, natural phenomenon, or subject matter within the enumerated groupings of abstract ideas above), then the claim is patent-eligible at *Step 2A(i)*. This determination concludes the eligibility analysis, except in situations identified in the Revised Guidance.[9]

However, if the claim recites a judicial exception (i.e., an abstract idea enumerated above, a law of nature, or a natural phenomenon), the claim requires further analysis for a practical application of the judicial exception in *Step 2A(ii)*.

Step 2A(ii) – Practical Application

If a claim recites a judicial exception in *Step 2A(i)*, we determine whether the recited judicial exception is integrated into a practical

---

[9] In the rare circumstance in which an examiner believes a claim limitation that does not fall within the enumerated groupings of abstract ideas should nonetheless be treated as reciting an abstract idea, the procedure described in of the Guidance for analyzing the claim should be followed. *See* Revised Guidance, Section III.C.

application of that exception in *Step 2A(ii)* by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.

The seven identified "practical application" sections of the MPEP,[10] cited in the Revised Guidance under *Step 2A(ii)*, are:

(1) MPEP § 2106.05(a) Improvements to the Functioning of a Computer or To Any Other Technology or Technical Field

(2) MPEP § 2106.05(b) Particular Machine

(3) MPEP § 2106.05(c) Particular Transformation

(4) MPEP § 2106.05(e) Other Meaningful Limitations

(5) MPEP § 2106.05(f) Mere Instructions To Apply An Exception

(6) MPEP § 2106.05(g) Insignificant Extra-Solution Activity

(7) MPEP § 2106.05(h) Field of Use and Technological Environment

See Revised Guidance 55.

If the recited judicial exception is integrated into a practical application as determined under one or more of the MPEP sections cited above, then the claim is not directed to the judicial exception, and the patent-

---

[10] *See* MPEP §§ 2106.05(a)–(c), (e)–(h). Citations to the MPEP herein refer to revision [R-08.2017]. Sections 2106.05(a), (b), (c), and (e) are indicative of integration into a practical application, while §§ 2106.05(f), (g), and (h) relate to limitations that are not indicative of integration into a practical application.

eligibility inquiry ends. *See* Revised Guidance 54. If not, then analysis proceeds to *Step 2B*.

Step 2B – "Inventive Concept" or "Significantly More"

Under our reviewing courts' precedent, it is possible that a claim that does not "integrate" a recited judicial exception under *Step 2A(ii)* is nonetheless patent eligible. For example, the claim may recite additional elements that render the claim patent eligible even though one or more claim elements may recite a judicial exception.[11] The Federal Circuit has held claims eligible at the second step of the *Alice/Mayo* test (USPTO *Step 2B*) because the additional elements recited in the claims provided "significantly more" than the recited judicial exception (e.g., because the additional elements were unconventional in combination).[12] Therefore, if a claim has been determined to be directed to a judicial exception under *Revised Step 2A*, we must also evaluate the additional elements individually and in combination under *Step 2B* to determine whether they provide an inventive concept (i.e., whether the additional elements amount to significantly more than the exception itself).[13]

---

[11] *See, e.g.*, *Diehr*, 450 U.S. at 187.

[12] *See, e.g.*, *Amdocs (Israel), Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300, 1304 (Fed. Cir. 2016); *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349–52 (Fed. Cir. 2016); *DDR Holdings v. Hotels.com, L.P.*, 773 F.3d 1245, 1257–59 (Fed. Cir. 2014).

[13] The patent eligibility inquiry may contain underlying issues of fact. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016). In particular, "[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

Under the Revised Guidance, we must consider in *Step 2B* whether an additional element or combination of elements: (1) "Adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present;" or (2) "simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present." *See* Revised Guidance, Section III.B.[14]

In the *Step 2B* analysis, an additional element (or combination of elements) is not well-understood, routine or conventional unless the examiner finds an evidentiary basis, and expressly supports a rejection in writing with, one or more of the following:

> 1. A citation to an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s). . . .
>
> 2. A citation to one or more of the court decisions discussed in MPEP § 2106.05(d)(II) as noting the well-

---

[14] In accordance with existing *Step 2B* guidance, an Examiner's finding that an additional element (or combination of elements) is well understood, routine, conventional activity must be supported with at least one of the four specific types of evidence required by the USPTO *Berkheimer* Memorandum, as shown above. For more information concerning evaluation of well-understood, routine, conventional activity, *see* MPEP § 2106.05(d), as modified by the USPTO *Berkheimer* Memorandum (USPTO Commissioner for Patents Memorandum dated Apr. 19, 2018, "Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)" (hereinafter "*Berkheimer Memo*").

understood, routine, conventional nature of the additional element(s).

> 3.   A citation to a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s). . . .

> 4.   A statement that the examiner is taking official notice of the well-understood, routine, conventional nature of the additional element(s). . . .

See Berkheimer Memo 3–4.

If the Examiner or the Board determines under *Step 2B* that the element (or combination of elements) amounts to significantly more than the exception itself, the claim is eligible, thereby concluding the eligibility analysis.

However, if a determination is made that the element and combination of elements do not amount to significantly more than the exception itself, the claim is ineligible under *Step 2B*, and the claim should be rejected for lack of subject matter eligibility.

Analysis

Step 1 – Statutory Category

Claim 1, as a method (process) claim, recites one of the enumerated categories of eligible subject matter in 35 U.S.C. § 101. Therefore, the issue before us is whether it is directed to a judicial exception without significantly more.

Step 2A(i): Does the Claim Recite a Judicial Exception?

The Examiner determined that claim 1 "is considered to be an abstract idea because it is merely an idea 'of itself', a certain method of organizing

human activity and mathematical relationships/formulas." Non-Final Act. 5. Further, "the claimed invention is directed towards the abstract idea of ranking simulators by the computed bounds." *Id*; *see also* Ans. 4.

We conclude claim 1 does not recite the judicial exceptions of either natural phenomena or laws of nature. We evaluate, *de novo*, whether claim 1 recites an abstract idea based upon the Revised Guidance.

First, we look to the Specification to provide context as to what the claimed invention is directed to. In this case, the Specification discloses that the invention "relates generally to data processing, and in a specific example embodiment, to testing a marketing strategy offline using an approximate simulator." Spec. ¶ 1.

Appellant's Abstract describes the invention as:

> In various example embodiments, a system and method for testing marketing strategies and approximate simulators offline for lifetime value marketing. In example embodiments, real world data, simulated data, and one or more policies that resulted in the simulated data are obtained. Errors between the real world data and the simulated data are determined. Using the determined errors, bounds are determined. Simulators are ranked based on the determined bounds, whereby a lower bound indicates a first simulator providing simulated data closer to the real world data then a second simulator having a higher bound.

Spec. 23 (Abstract).

In TABLE 1 below, we identify in *italics* the specific claim limitations in claim 1 that we conclude recite an abstract idea. We additionally identify in **bold** the additional (non-abstract) claim limitations

that are generic computer components and techniques, and <u>underline</u>

limitations representing extra or post-solution activity:

TABLE 1

Independent Claim 1	**Revised Guidance**
A computer-implemented method performed by **one or more hardware devices** the method comprising:	A process (method) is a statutory subject matter class. *See* 35 U.S.C. § 101.
[L1] <u>receiving</u>, over **a network**, real world <u>data</u> from **a website server**, the real world data indicating a number of logged user interactions with at least one a website provided by the **website server**;	Data gathering or receiving data is merely insignificant extra-solution activity that does not add significantly more to the abstract idea to render the claimed invention patent-eligible. *See In re Bilski*, 545 F.3d 943, 962 (Fed. Cir. 2008) (*en banc*), *aff'd on other grounds*, 561 U.S. 593 (2010) ("[T]he involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity"); *see also* MPEP § 2106.05(g); *and see buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (computer receives and sends information over a network).
[L2] *applying one or more policies* to **simulators**;	Applying a policy is an abstract idea, i.e., an "observation, evaluation, judgment, opinion" which could be performed as a mental process. *See* Revised Guidance 52.
[L3] *running the simulators*, each **simulator** generating a respective predicted result for each step in a series of steps of providing information to a user,	Both running a simulator and implementing a policy are abstract ideas, i.e., an "observation, evaluation, judgment, opinion" which could be performed in the mind as a mental process. Revised Guidance 52.

Independent Claim 1	Revised Guidance
each **simulator** *implementing a policy* of the one or more one policies offline, the policy comprising rules defining the information to provide to the user at the step and how often to provide the information to the user in order to maximize a number of user interactions with the website;	Alternatively, running a simulator implemented in a computer could be considered as a generic computer operation.
[L4] <u>receiving simulated data</u> indicating **for each simulator of the simulators**, the respective predicted result at each of the steps; **for each simulator of the simulators**,	Receiving information, i.e., data gathering, is merely insignificant extra-solution activity that does not add significantly more to the abstract idea to render the claimed invention patent-eligible. Revised Guidance 55, n.31; *see In re Bilski*, 545 F.3d 943, 962 (Fed. Cir. 2008) (*en banc*), *aff'd on other grounds*, 561 U.S. 593 (2010) ("[T]he involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity"); *see also* MPEP § 2106.05(g); *and see buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (computer receives and sends information over a network).
[L5] *computing* from the received simulated data and the received real world data, *errors* between the number of logged user interactions and the respective predicted result at each of the steps, *and from the errors, a bound* on a lifetime difference between the number of logged user interactions and a	Computing errors and a bound on a lifetime difference, i.e., performing mathematical calculations, is an abstract idea. Revised Guidance 52 and n.12 citing *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018) (holding that claims to a "series of mathematical calculations based on selected information" are directed to abstract ideas).

17

Independent Claim 1	Revised Guidance
cumulative number of simulated user interactions predicted by **the simulator**;	Alternatively, this could be considered a mental process, e.g., an evaluation.
[L6] *ranking* the simulators by the computed bounds; and based on the ranking of the simulators,	Ranking is an abstract idea, i.e., an "observation, evaluation, judgment, opinion" which could be performed as a mental process. *See* Revised Guidance 52.
[L7] <u>transmitting data</u> that causes the **web server** to implement at least one of **a given simulator of the simulators** and the policy implemented by **the given simulator** on the **website**.	Transmitting information, e.g., for display, is insignificant post-solution activity. Revised Guidance 55, n.31; *see also* MPEP § 2106.05(g); *and see buySAFE*, 765 F.3d at 1355 (computer receives and sends information over a network).

Claims App.

Under the broadest reasonable interpretation standard,[15] we conclude limitations [L1] through [L7], taken together, recite steps that would ordinarily occur when testing or executing a marketing strategy. *See generally*, Spec. We specifically conclude that limitations [L2] "applying,"

---

[15] During prosecution, claims must be given their broadest reasonable interpretation when reading claim language in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under this standard, we interpret claim terms using "the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification." *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

[L3] "running the simulators," [L5] "computing," and [L6] "ranking" recite abstract ideas, as identified in TABLE 1.

Overall, we determine that claim 1 recites certain methods of organizing human activity including commercial interactions in the form of marketing or sales activities or behaviors that may also be performed in the human mind. This type of activity, i.e., ranking simulators by the computed bounds[16] as recited in claim 1, for example, and aside from any computer-related aspects, includes longstanding conduct that existed well before the advent of computers and the Internet, and could be carried out by a human with pen and paper. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) ("That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.").[17]

Thus, under *Step 2A(i)*, we agree with the Examiner that claim 1's method recites a judicial exception. We conclude claim 1, under our

---

[16] According to the Specification, the simulations and computed bounds relate to simulated marketing activity. *See generally*, Spec.

[17] Our reviewing court recognizes 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). That need not and, in this case does not, "impact the patentability analysis." *Id.* at 1241. Further, "[t]he Board's slight revision of its abstract idea analysis does not impact the patentability analysis." *Id*. Moreover, merely combining several abstract ideas does not render the combination any less abstract. *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) ("Adding one abstract idea (math) to another abstract idea . . . does not render the claim non-abstract."); *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (determining the pending claims were directed to a combination of abstract ideas).

Revised Guidance, recites a judicial exception of certain methods of organizing human activity, i.e., commercial interactions in the form of marketing or sales activities or behaviors, and thus is an abstract idea. *See* n.17.

Step 2A(ii): Judicial Exception Integrated into a Practical Application?

If the claims are directed to a judicial exception, as we conclude above, we proceed to the "practical application" *Step 2A(ii)* in which we determine whether the recited judicial exception is integrated into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.

With respect to this step of the analysis, Appellant argues the claims are not directed to an abstract idea because they are directed to an improvement in computer-related technology. Br. 12. In particular:

> Additionally, "[a]n 'improvement in computer-related technology' is not limited to improvements in the operation of a computer or a computer network *per se*, but may also be claimed as a set of 'rules' that improve computer-related technology allowing computer performance of a function not previously performable by a computer." Based on the Federal Circuit's decision in *McRO*, a claim can be found to be directed to an improvement in computer-related technology when indicated by "a particular solution to a problem or a particular way to achieve a desired outcome defined by the claimed invention, as opposed to merely claiming the idea of a solution or outcome."

Id. (footnotes omitted).

> However, as also described above, due to the complexity
> of predicting website-user interactions, let alone, to do so in the
> claimed forward-looking manner, it is difficult to predict how a
> policy will actually perform once implemented on a website.
> Thus, as described in the present application, "running the
> policies in the real world environment is risky and potentially
> dangerous as the policies may not work well in the real world
> environment." Not only could a policy have negative effects on
> an entity's business, but it could introduce system instability on
> a website server due to unanticipated demand on computing
> resources.
>
> The claims provide specific mechanisms to address these
> problems, including "applying one or more policies to
> simulators" and using those simulators to each generate "a
> respective predicted result for each step in a series of steps of
> providing information to a user" in "***implementing a policy of
> the one or more one policies offline***." *See*, e.g., claim 1.

Br. 13 (citations omitted).

Appellant appears to suggest that their recitation of policies that
include "rules defining the information to provide to the user in order to
maximize a number of user interactions with the website" renders the claims
non-abstract, and thus patent-eligible. Br. 12 (quoting claim 1).

However, in *McRO*, the claims were held to be patent eligible because
they recited a "specific . . . improvement in computer animation" using
"unconventional rules that relate[d] sub-sequences of phonemes, timings,
and morph weight sets." *McRO, Inc. v. Bandai Namco Games Am. Inc.*,
837 F.3d 1299, 1302–03, 1307–08, 1314–15 (Fed. Cir. 2016). In *McRO*,
"the incorporation of the claimed rules, not the use of the computer,"
improved an existing technological process. *Id.* at 1314.

Appellant does not, however, identify how claim 1 improves an
existing technological process. *See Alice*, 573 U.S. at 223 (explaining that

"the claims in *Diehr* were patent eligible because they improved an existing technological process"). Rather, claim 1 concerns a "computer-implemented method performed by one or more hardware devices." Claims App. In addition, Appellant does not direct us to any evidence that the claimed rules used in setting offline policies correspond to unconventional rules. Thus, we are unpersuaded by Appellant's arguments based upon the Federal Circuit's holding in *McRO*.

As to the specific limitations, we find limitations [L1] ("receiving . . . data") and [L4] ("receiving simulated data") recite insignificant data gathering. *See* MPEP § 2106.05(g). Data gathering, as performed by these steps or function in Appellant's claims, is a classic example of insignificant extra-solution activity. *See, e.g.*, *In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008) (en banc), *aff'd sub nom*, *Bilski v. Kappos*, 561 U.S. 593 (2010). We also conclude limitation [L7] ("transmitting data") recites insignificant post solution activity. The Supreme Court guides that the "prohibition against patenting abstract ideas 'cannot be circumvented' [by] adding 'insignificant postsolution activity.'" *Bilski*, 561 U.S. at 610–11 (quoting *Diehr*, 450 U.S. at 191–92). On this record, we are of the view that Appellant's claims do not operate the recited generic computer components in an unconventional manner to achieve an improvement in computer functionality. *See* MPEP § 2106.05(a).

We conclude each of the limitations of claim 1 recite either abstract ideas or extra-solution activity as identified in *Step 2A(i)*, *supra*, and none of the limitations integrate the judicial exception of commercial interactions in the form of marketing or sales activities or behaviors by ranking simulators by the computed bounds into a practical application as determined under one

or more of the MPEP sections cited above. The claim as a whole merely uses instructions to implement the abstract idea on a computer or, alternatively, merely uses a computer as a tool to perform the abstract idea.

Under analogous circumstances, the Federal Circuit has held that "[t]his is a quintessential 'do it on a computer' patent: it acknowledges that [such] data . . . was previously collected, analyzed, manipulated, and displayed manually, and it simply proposes doing so with a computer. We have held such claims are directed to abstract ideas." *Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1367 (Fed. Cir. 2019); *see also Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351 (Fed. Cir. 2016) ("Though lengthy and numerous, the claims do not go beyond requiring the collection, analysis, and display of available information in a particular field, stating those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology.").

Therefore, the claim as a whole merely uses instructions to implement the abstract idea on a computer or, alternatively, merely uses a computer as a tool to perform the abstract idea. Thus, on this record, Appellant has not shown an improvement or practical application under the guidance of MPEP section 2106.05(a) ("Improvements to the Functioning of a Computer or to Any Other Technology or Technical Field") or section 2106.05(e) ("Other Meaningful Limitations"). Nor does Appellant advance any arguments in the Brief(s) that are directed to the *Bilski* machine-or-transformation test, which would only be applicable to the method (process) claims on appeal. *See* MPEP §§ 2106.05(b) (Particular Machine) and 2106.05(c) (Particular Transformation).

Therefore, we conclude the abstract idea is not integrated into a practical application, and thus the claim is directed to the judicial exception.

Step 2B – "Inventive Concept" or "Significantly More"

If the claims are directed to a judicial exception, and not integrated into a practical application, as we conclude above, we proceed to the "inventive concept" step. For *Step 2B* we must "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*, 838 F.3d at 1258.

In applying step two of the *Alice* analysis, our reviewing court guides we must "determine whether the claims do significantly more than simply describe [the] abstract method" and thus transform the abstract idea into patentable subject matter. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014). We look to see whether there are any "additional features" in the claims that constitute an "inventive concept," thereby rendering the claims eligible for patenting even if they are directed to an abstract idea. *Alice*, 573 U.S. at 221. Those "additional features" must be more than "well-understood, routine, conventional activity." *Mayo*, 566 U.S. at 79.

Limitations referenced in *Alice* that are not enough to qualify as "significantly more" when recited in a claim with an abstract idea include, as non-limiting or non-exclusive examples: adding the words "apply it" (or an equivalent) with an abstract idea[18]; mere instructions to implement an

---

[18] *Alice*, 573 U.S. at 221–23.

abstract idea on a computer[19]; or requiring no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.[20]

With respect to this step of the analysis, Appellant presents several arguments. First, Appellant attempts to draw an analogy of the claims on Appeal to the Federal Circuit's holding in *Bascom* and *Amdocs*. Br. 16–17.

Bascom

In *Bascom,* the claims were directed to the inventive concept of providing customizable Internet-content filtering which, under Step 2 of the Alice analysis, was found to transform the abstract idea of filtering content into a patent-eligible invention. Although the underlying idea of filtering Internet content was deemed to be abstract, under step 2 of the Alice analysis, the claims carved out a specific location for the filtering system, namely a remote Internet service provider (ISP) server, and required the filtering system to give users the ability to customize filtering for their individual network accounts. *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016).

In response to Appellant's reliance upon *Bascom*, *supra*, there is no evidence of record to substantiate the assertion that the claims recite non-conventional and non-generic arrangement of known, conventional elements, as in *Bascom*. Moreover, we find no analogy between Appellant's

---

[19] *Alice*, 573 U.S. at 222–23, *e.g*., simply implementing a mathematical principle on a physical machine, namely a computer.

[20] *Alice*, 573 U.S. at 225 (explaining using a computer to obtain data, adjust account balances, and issue automated instructions involves computer functions that are well-understood, routine, conventional activities).

claimed ranking of simulators by the computed bounds to the claims in *Bascom*.

Amdocs

In *Amdocs*, the Federal Circuit held that claim 1 of the patent at issue

> is also like the claims in *Bascom* because even though the
> system in the '065 patent relies upon some arguably generic
> limitations, when all limitations are considered individually and
> as an ordered combination, they provide an inventive concept
> through the use of distributed architecture. This is similar to the
> design in *Bascom* which permitted the invention to have a
> filtering tool with the benefits of a filter on a local computer
> and the benefits of a filter on an ISP server. The benefits in
> *Bascom* were possible because of customizable filtering
> features at specific locations remote from the user. Similarly,
> the benefits of the '065 patent's claim 1 are possible because of
> the distributed, remote enhancement that produced an
> unconventional result—reduced data flows and the possibility
> of smaller databases. This arrangement is not so broadly
> described to cause preemption concerns. Instead, it is narrowly
> circumscribed to the particular system outlined. As in *Bascom*
> this is a technical improvement over prior art technologies and
> served to improve the performance of the system itself.

Amdocs, 841 F.3d at 1302.

Again, we determine Appellant's reliance upon *Amdocs* is unavailing because there is no indication that claim 1 on appeal provides unconventional results produced by a distributed, remote enhancement that reduces data flows and allows for the possibility of smaller databases.

Appellant also argues the claims are patent-eligible because of their alleged novelty (Br. 18) and lack of pre-emption. Br. 19.

Novelty

"As further support that the claims include unconventional steps that confine the claims to a particular useful application, there is no remaining art cited against the present claims. Furthermore, in rejecting the claims, the Office has been unable to find any art remotely similar to the approach described in claims." Br. 18.

In response, we note the Supreme Court emphasizes, "[t]he 'novelty' of any element or steps in a process, or even of the process itself, is of **no relevance** in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." *Diehr*, 450 U.S. at 188–89 (emphasis added). Our reviewing court further guides that "[e]ligibility and novelty are separate inquiries." *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017); *see also Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1263 (Fed. Cir. 2016) (holding that "[e]ven assuming" that a particular claimed feature was novel does not "avoid the problem of abstractness").

Preemption

Appellant also alleges claim 1 is patent-eligible because its practice does not preempt practice by others. Br. 19 ("[T]he inventive concept ensures that the claims are significantly more than an abstract idea because they do not foreclose alternative solutions, e.g., do not seek to simply claim a formula for use in a particular industry (*Flook*).")

Regarding preemption, "[w]hile 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." *Ariosa Diagnostics, Inc. v. Sequenom, 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) ("that 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, we are not persuaded by Appellant's arguments concerning either novelty or lack of preemption.

Evaluating representative claim 1 under step 2 of the *Alice* analysis, we conclude it lacks an inventive concept that transforms the abstract idea of ranking simulators by the computed bounds into a patent-eligible application of that abstract idea.

The patent eligibility inquiry may contain underlying issues of fact. *Mortg. Grader*, 811 F.3d at 1325. In particular, "[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact." *Berkheimer*, 881 F.3d at 1368.

As evidence of the conventional nature of the recited "one or more hardware devices," "network," "website server," and "simulator" in method claim 1, and similarly in media claim 9 and system claim 17, we note the disclosure of Appellant's Specification in paragraphs 12, 14–16, 21–26, and 38–50. For example, we turn to paragraphs 16, 21, 38, and 39 of the Specification for context:

[0016] The simulators 108 are configured to produce simulated results (also referred to as "simulated data") that recommend or predict a series of information to be present to a user of a website that may cause the user to continually interact with the series of information (to maximize the simulated number of interactions). The simulated data may be a result of applying one or more policies to one or more simulators 108. The simulated results may use one or more of metadata known for the user, history of communications with each of the users, information probed by the user, and whether the user interacted with any information in applying a policy to the simulator 108. It is noted that, in some embodiments, the simulators 108 may be embodied within the website servers 106 or be located at a facility associated with the entity that publishes the website. In other embodiments, the simulators 108 may be associated with the evaluation system 102.

Spec. ¶ 16.

[0021] Referring to FIG. 2, an example block diagram illustrating multiple components that, in one embodiment, are provided within the evaluation system 102 is shown. In example embodiments, the evaluation system 102 comprises a communication module 202, an evaluation database 204, a bound module 206, and an analysis module 208. Some or all of the modules in the evaluation system 102 may be configured to communicate with each other (e.g., via a bus, shared memory, or a switch). Any one or more of the modules described herein may be implemented using hardware (e.g., a processor of a machine) or a combination of hardware and software. For example, any module described herein may configure a processor to perform the operations described herein for that module. Moreover, any two or more of these modules may be combined into a single module, and the functions described herein for a single module may be subdivided among multiple modules.

Spec. ¶ 21.

[0038] FIG. 5 is a block diagram illustrating components of a machine 500, according to some example embodiments, able to read instructions from a machine-readable medium (e.g., a machine-readable storage medium) and perform any one or more of the methodologies discussed herein. Specifically, FIG. 5 shows a diagrammatic representation of the machine 500 in the example form of a computer system and within which instructions 524 (e.g., software, a program, an application, an applet, an app, or other executable code) for causing the machine 500 to perform any one or more of the methodologies discussed herein may be executed. In alternative embodiments, the machine 500 operates as a standalone device or may be connected (e.g., networked) to other machines. In a networked deployment, the machine 500 may operate in the capacity of a server machine or a client machine in a server-client network environment, or as a peer machine in a peer-to-peer (or distributed) network environment. The machine 500 may be a server computer, a client computer, a personal computer (PC), a tablet computer, a laptop computer, a netbook, a set-top box (STB), a personal digital assistant (PDA), a cellular telephone, a smartphone, a web appliance, a network router, a network switch, a network bridge, or any machine capable of executing the instructions 524, sequentially or otherwise, that specify actions to be taken by that machine. Further, while only a single machine is illustrated, the term "machine" shall also be taken to include a collection of machines that individually or jointly execute the instructions 524 to perform any one or more of the methodologies discussed herein.

[0039] The machine 500 includes a processor 502 (e.g., a central processing unit (CPU), a graphics processing unit (GPU), a digital signal processor (DSP), an application specific integrated circuit (ASIC), a radio-frequency integrated circuit (RFIC), or any suitable combination thereof), a main memory 504, and a static memory 506, which are configured to communicate with each other via a bus 508. The machine 500 may further include a graphics display 510 (e.g., a plasma display panel (PDP), a light emitting diode (LED) display, a liquid crystal display (LCD), a projector, or a cathode ray tube (CRT)). The machine 500 may also include an alphanumeric

> input device 512 (e.g., a keyboard), a cursor control device 514
> (e.g., a mouse, a touchpad, a trackball, a joystick, a motion
> sensor, or other pointing instrument), a storage unit 516, a
> signal generation device 518 (e.g., a speaker), and a network
> interface device 520.

Spec. ¶¶ 38, 39.

Thus, because the Specification describes the additional elements in general terms, without describing the particulars, we conclude the claim limitations may be broadly but reasonably construed as reciting conventional computer components and techniques, particularly in light of Appellants' Specification, as quoted above.[21]

The MPEP, based upon our precedential guidance, provides additional considerations with respect to analysis of the well-understood, routine, and conventional nature of the recited computer-related components.

> Another consideration when determining whether a claim
> recites significantly more than a judicial exception is whether
> the additional elements amount to more than a recitation of the
> words "apply it" (or an equivalent) or are more than mere
> instructions to implement an abstract idea or other exception on
> a computer. As explained by the Supreme Court, in order to
> transform a judicial exception into a patent-eligible application,
> the additional element or combination of elements must do
> "'more than simply stat[e] the [judicial exception] while adding
> the words 'apply it'". *Alice Corp. v. CLS Bank*, 573 U.S. __,
> 134 S. Ct. 2347, 2357, 110 USPQ2d 1976, 1982-83 (2014)
> (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*,
> 566 U.S. 66, 72, 101 USPQ2d 1961, 1965). Thus, for example,
> claims that amount to nothing more than an instruction to apply

---

[21] Claim terms are to be given their broadest reasonable interpretation, as understood by those of ordinary skill in the art and taking into account whatever enlightenment may be had from the Specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

the abstract idea using a generic computer do not render an abstract idea eligible. *Alice Corp.*, 134 S. Ct. at 2358, 110 USPQ2d at 1983. *See also* 134 S. Ct. at 2389, 110 USPQ2d at 1984 (warning against a § 101 analysis that turns on "the draftsman's art") . . . .

In *Alice Corp.*, the claim recited the concept of intermediated settlement as performed by a generic computer. The Court found that the recitation of the computer in the claim amounted to mere instructions to apply the abstract idea on a generic computer. 134 S. Ct. at 2359-60, 110 USPQ2d at 1984. The Supreme Court also discussed this concept in an earlier case, *Gottschalk v. Benson*, 409 U.S. 63, 70, 175 USPQ 673, 676 (1972), where the claim recited a process for converting binary-coded decimal (BCD) numerals into pure binary numbers. The Court found that the claimed process had no substantial practical application except in connection with a computer. *Benson*, 409 U.S. at 71-72, 175 USPQ at 676. The claim simply stated a judicial exception (e.g., law of nature or abstract idea) while effectively adding words that "apply it" in a computer. *Id.*

MPEP § 2106.05(f) ("Mere Instructions To Apply An Exception").

With respect to the *Step 2B* analysis, we conclude, similar to *Alice*, the recitation of a computer-implemented method performed by one or more hardware devices that includes "one or more hardware devices," "network," "website server," and "simulator" is simply not enough to transform the patent-ineligible abstract idea here into a patent-eligible invention under *Step 2B*. *See Alice*, 573 U.S. at 221 ("[C]laims, which merely require generic computer implementation, fail to transform [an] abstract idea into a patent-eligible invention.").

We conclude the claims fail the *Step 2B* analysis because claim 1, in essence, merely recites various computer-based elements along with no

32

more than mere instructions to implement the identified abstract idea using the computer-based elements.

Therefore, in light of the foregoing, we conclude, under the Revised Guidance, that each of Appellant's claims 1–20, considered as a whole, is directed to a patent-ineligible abstract idea that is not integrated into a practical application and does not include an inventive concept. Accordingly, we sustain the Examiner's § 101 rejection of independent claim 1, and grouped claims 2–20 which fall therewith. *See* Claim Grouping, *supra*.

CONCLUSIONS

(1)   Appellant did not allege error with respect to indefiniteness Rejection R1 of claims 1–20 under 35 U.S.C. § 112(b), and we *pro forma* sustain the rejection.

(2)   Under our Revised Guidance, governed by relevant case law, claims 1–20 are patent-ineligible under 35 U.S.C. § 101, and we sustain Rejection R2.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Basis / References	Affirmed	Reversed
1–20	112(b)	Indefiniteness	1–20	
1–20	101	Subject Matter Eligibility	1–20	
Overall Outcome			1–20	

FINALITY AND RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv). *See* 37 C.F.R. § 41.50(f).

<u>AFFIRMED</u>