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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 GANG WANG, ADAM WHITNEY, KEVIN McCLUSKEY,
PAUL BOBER, and GEORGE A. CACIOPPO JR.

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Appeal 2019-001909
Application 14/097,057
Technology Center 3600

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Before MURRIEL E. CRAWFORD, BIBHU R. MOHANTY, and
AMEE A. SHAH, *Administrative Patent Judges*.

SHAH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), the Appellant[1] appeals from the
Examiner's decision to reject claims 1, 3, 5–10, 13–16, 19–24, and 27–37,
which are all of the pending claims.[2] 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. The Appellant identifies the real party in interest as Intuit
Inc. Appeal Br. 2.
[2] We note the Appellant waived the Oral Hearing scheduled for May 4,
2020. *See* Waiver of Hearing, dated Apr. 10, 2020.

CLAIMED SUBJECT MATTER

The Appellant states that their invention is "directed to providing users of tax preparation applications with personalized interview experiences" (Spec. ¶ 1) and "to determining whether a certain tax situation or topic applies to a user by asking a subset of a set of questions that would normally be asked of the user to reach the same conclusion" (*id.* ¶ 2).

Claim 1 is the only independent claim, is representative of the subject matter on appeal, and is reproduced below:

1. A computer-implemented method, comprising:

a computer programmed according to instructions of a tax return preparation application stored in a memory of the computer, executable by a processor of the computer and operable to prepare an electronic tax return, transforming at least one representation of questions pertaining to a tax topic into a first transformed representation of questions;

the computer, programmed according to instructions of the tax return preparation application,

generating a first rule set based at least in part upon the first transformed representation of questions pertaining to the tax topic,

generating a second rule set and a third rule set based at least in part upon the first rule set and

storing the first rule set, the second rule set and the third rule set to a data store of the computer,

wherein the first transformed representation comprises a decision table and respective rules of the first rule set are based on respective rows of the decision table, the second rule set and the third rule set do not include any rule that is executable to generate a result indicating whether the tax return topic applies to the user, the second rule set comprises a first meta data rule set based at least in part upon the first rule set, and the third rule

set comprises a second meta data rule set based at least in part upon the first rule set;

the computer, programmed according to instructions of the tax return preparation application, generating an interview screen comprising a first question and presenting the interview screen to the user through a display of the computer;

the computer, programmed according to instructions of the tax return preparation application, receiving a first input by the user through the interview screen in response to the first question and storing the first input to the data store; and

the computer, programmed according to instructions of the tax return preparation application, executing a rule engine in communication with the data store to perform a rule set analysis comprising determining whether any rule of the first rule set can be executed based on the first input, wherein when no rule of the first rule set can be executed, the computer, programmed according to instructions of the tax return preparation application, executing at least one rule of the second rule set to invalidate at least one rule of the first rule set resulting in a first subset of the first rule set, and the computer, programmed according to instructions of the tax return preparation application, determining a second question to present to the user based at least in part upon at least one rule of the third rule set involving at least one rule of the first subset, else executing a rule of the first rule set to determine whether the tax topic applies to the user; and

the computer, programmed according to instructions of the tax return preparation application, executing an action based at least in part upon the rule set analysis.

Appeal Br. 50–51.

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THE REJECTION

Claims 1, 3, 5–10, 13–16, 19–24, and 27–37 stand rejected under 35 U.S.C. § 101 as being directed to a judicial exception without significantly more.

OPINION

35 U.S.C. § 101 Framework

A. Section 101

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 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 water-proof 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, after the Examiner's Answer was mailed and before the Appellant's Appeal and Reply Briefs were filed, 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").[3] "All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." *Id.* at 51; *see also* October 2019 Update at 1. The 2019 Revised Guidance, by its terms, applies to all applications, and to all patents resulting from applications, filed before, on, or after January 7, 2019. 84 Fed. Reg. at 50.[4]

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

[4] The 2019 Revised Guidance supersedes MPEP § 2106.04(II) and also supersedes all versions of the USPTO's "Eligibility Quick Reference Sheet Identifying Abstract Ideas." *See* 2019 Revised Guidance, 84 Fed. Reg. at 51 ("Eligibility-related guidance issued prior to the Ninth Edition, R–08.2017, of the MPEP (published Jan. 2018) should not be relied upon."). Thus, the Appellant's arguments related to prior guidance (*see, e.g.*, Appeal Br. 17–18,

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").[5] 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 additional elements, individually or in combination, provide an inventive concept. *Id.* at 55. Among the considerations in determining whether the additional elements, individually or in combination, amount to significantly more than the exception itself, we look to whether they add a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field or simply append well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *Id.* at 56.

20–21, 38 (arguing that the Examiner cites to no applicable case law as support) will not be considered.

[5] 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. at 54–55.

Prima Facie Case

We first address the Appellant's contentions that "the Final Action errors, misplaced allegations and omissions do not support the Step 2A allegations and that the claims are not directed to an abstract idea. Thus, Appellant respectfully submits that the rejection under 35 U.S.C. §101 is moot on this basis alone since a prima facie case has not been established" and that "under Step 2B[,] . . . the Final Action has not established a prima facie case demonstrating that claims do not recite patent eligible subject matter." Appeal Br. 40, 48. We disagree.

Here, the Examiner applies the Supreme Court's two-step framework, described in *Mayo* and *Alice*, and considers Office guidelines (in effect at the time) in that application. *See* Final Act. 3–5; Ans. 3–5. Specifically, the Examiner notifies the Appellant that "the claim is directed towards the abstract idea of generating a personalized interview experience for a user of a tax preparation application," which is an abstract idea of a certain method of organizing human activity. Final Act. 3. The Examiner further considers the additional elements beyond the abstract idea individually and as an ordered combination and notifies the Appellant that "there are no meaningful limitations in the claim that transform the judicial exception into a patent eligible application such that the claim amounts to significantly more than the judicial exception itself." *Id.* at 4. Thus, the Examiner has notified the Appellant of the reasons for the rejection in a sufficiently articulate and informative manner as to meet the notice requirement of 35 U.S.C. § 132. *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011).

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Claim 1

Step One of the *Mayo*/*Alice* Framework

Under the first step of the *Mayo*/*Alice* framework and Step 1 of
USPTO guidance, the Examiner makes no explicit determinations as to what
statutory category independent claim 1 is directed. *See* Final Act. 3; Ans. 3.
We note that the preamble of claim 1 states that it recites "[a] computer-
implemented method," but the body of the claim appears to list structural
elements performing functions, and not specifically steps of a method. *See*
Appeal Br. 50–51 (Claims App.) ("a computer programmed according to
instructions. . . and operable to prepare an electronic tax return, . . . the
computer, programmed according to instructions . . . generating, . . .
receiving, . . . executing, . . . determining . . ."). However, the Examiner
appears to categorize the claim as a method (*see* Final Act. 3), i.e., the
statutory category of a process.[6]

Under the first step of the *Mayo*/*Alice* framework and Step 2A of
USPTO guidance, the Examiner determines that independent claim 1 is
"directed towards the abstract idea of generating a personalized interview
experience for a user of a tax preparation application[,] . . . [which is] a
method of organizing human activities; and as a result, claim 1 includes an
abstract idea." Final Act. 3; *see also* Ans. 3. When viewed through the lens
of the 2019 Revised Guidance, the Examiner's analysis depicts the claimed
subject matter as "[c]ertain methods of organizing human activity— . . .

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[6] To the extent the Appellant considers the claim to recite both a system and
method (*see* Appeal Br. 27), we note that both of these are statutory
categories, and the analysis under 35 U.S.C. § 101 is the same regardless of
category. *See Alice*, 573 U.S. at 216, 226–27.

managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions)" under Prong One of Revised Step 2A. 84 Fed. Reg. at 52.

The Examiner further determines that the additional elements of the claim do not recite an improvement to computers or other technology (Final Act. 9), that the "recited 'computing system' is recited at a high level of generality" (*id.* at 3–4), and "the focus of . . . claim[1] is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools" (Ans. 5). When viewed through the lens of the 2019 Revised Guidance, Prong Two of Revised Step 2A, the Examiner's determinations indicate that the claim's additional elements do not integrate the judicial exception into a practical application because they "merely use[] a computer as a tool to perform an abstract idea." 84 Fed. Reg. at 52.

The Appellant argues that the Examiner oversimplifies and overgeneralizes the claim (*see* Appeal Br. 14–21; Reply Br. 1–2) and contends that the claim

> recite[s] a specific a rule-based computing system and method that requires particular ways of generating rules and use of specific data structures that are not well-understood, routine or conventional, while providing flexibility in tax return preparation application configurations and rule-based systems to eliminate questions, interview screens and interactions such that they do not need to presented.

Appeal Br. 27.[7] The Appellant also contends that the claim provides "technological and prior art improvements." *Id.* at 21; *see also id.* at 22–39.

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[7] We note that, as discussed, we consider independent claim 1 as reciting a method.

When viewed through the lens of the 2019 Revised Guidance, the Appellant's arguments amount to a contention that claim 1 "integrate[s] a judicial exception into a practical application" because it includes an additional element or combination of elements that "reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field." 84 Fed. Reg. at 55. For at least the following reasons, we disagree.

Under the first step of the *Mayo/Alice* framework and Step 2A USPTO guidance, we first determine to what claim 1 is directed, i.e., whether claim 1 recites an abstract idea and if so, whether claim 1 is directed to that abstract idea. The Federal Circuit has explained that "the 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether 'their character as a whole is directed to excluded subject matter.'" *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claim is on a specific improvement in relevant technology or on a process that itself qualifies as an "abstract idea" for which computers are invoked merely as a tool. *See id.* at 1335–36. Here, it is clear from the Specification, including the claim language, that claim 1 focuses on an abstract idea, and not on any improvement to technology and/or a technical field.

Reciting a Judicial Exception

The Specification provides for "METHODS SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR APPLYING GENERATED RULES FOR PERSONALIZED INTERVIEW EXPERIENCE." Spec., Title. In the "SUMMARY" section, the Specification discusses that

"[e]mbodiments are directed to providing users of tax preparation

applications with personalized interview experiences" (*id.* ¶ 1) and "to

determining whether a certain tax situation or topic applies to a user by

asking a subset of a set of questions that would normally be asked of the user

to reach the same conclusion" (*id.* ¶ 2). *See also id.* ¶ 47. In the

"DETAILED DESCRIPTION OF ILLUSTRATED EMBODIMENTS"

section, the Specification states

> rather than requiring a user to step through each question of a
> pre-determined sequence of questions in order to conclude that a
> particular tax situation or topic applies to the user, embodiments
> can eliminate pre-determined sequence constraints and reach the
> tax topic conclusion while invalidating generated rules in order
> to eliminate corresponding questions, even when those questions
> would have otherwise been asked of the user according to the
> predetermined sequence.

Id. ¶ 47.

Consistent with the disclosure, claim 1 recites "[a] computer-

implemented method."[8] Appeal Br. 50 (Claims App.). We consider claim 1

as a whole[9] giving it the broadest reasonable construction[10] as one of

ordinary skill in the art would have interpreted it in light of the

Specification[11] at the time of filing. Claim 1 comprises the steps of:

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[8] We interpret claim 1 based on our understanding that the claim is directed
to a method and thus, recites steps performed by the claimed computer.
[9] "In determining the eligibility of respondents' claimed process for patent
protection under § 101, their claims must be considered as a whole." *Diehr*,
450 U.S. at 188.
[10] 2019 Revised 101 Guidance, page 52, footnote 14 ("If a claim, under its
broadest reasonable interpretation . . . .") (Emphasis added.)
[11] "First, it is always important to look at the actual language of the claims
. . . . Second, in considering the roles played by individual limitations, it is

(1) "prepar[ing] an electronic tax return"; (2) transforming data into other data, i.e., "transforming at least one representation of questions pertaining to a tax topic into a first transformed representation of questions;" (3) generating rule sets, i.e., "generating a first rule set based at least in part upon the first transformed representation of questions pertaining to the tax topic," "wherein the first transformed representation comprises a decision table and respective rules of the first rule set are based on respective rows of the decision table," and "generating a second rule set and a third rule set based at least in part upon the first rule set," wherein

> the second rule set and the third rule set do not include any rule that is executable to generate a result indicating whether the tax return topic applies to the user, the second rule set comprises a first meta data rule set based at least in part upon the first rule set, and the third rule set comprises a second meta data rule set based at least in part upon the first rule set;

(4) storing data, i.e., "storing the first rule set, the second rule set and the third rule set to a data store of the computer," and "storing the first input to the data store"; (5) generating data, i.e., "generating an interview screen comprising a first question"; (6) presenting the generated data, i.e., "presenting the interview screen to the user through a display of the computer"; (7) receiving data input, i.e., "receiving a first input by the user through the interview screen in response to the first question"; (8) performing analyses, i.e.,

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important to read the claims 'in light of the specification.'" *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1378 (Fed. Cir. 2017) (J. Linn, dissenting in part and concurring in part), citing *Enfish*, 822 F.3d at 1335, among others.

> executing a rule engine in communication with the data store to perform a rule set analysis comprising determining whether any rule of the first rule set can be executed based on the first input, wherein when no rule of the first rule set can be executed, . . . executing at least one rule of the second rule set to invalidate at least one rule of the first rule set resulting in a first subset of the first rule set, and . . . determining a second question to present to the user based at least in part upon at least one rule of the third rule set involving at least one rule of the first subset, else executing a rule of the first rule set to determine whether the tax topic applies to the user;

and (9) performing an action based on the result of the analyses, i.e., "executing an action based at least in part upon the rule set analysis." *See* Appeal Br. 50–51 (Claims App.).

The limitations are recited functionally without any implementation details. Claim 1 does not recite how, technologically or by what algorithm, an electronic tax return is prepared, a representation of tax topic questions is transformed into a transformed representation of questions, the rule sets are generated, an interview screen is generated, whether a rule can be executed is determined, a rule is invalidated, a second question is determined, whether a tax topic applies is determined, and an action is executed. The Specification discusses transforming a flow chart "into a different format, such as a graphical representation of the flow chart" (Spec. ¶ 62) or into a decision table with rows and columns (*id.* ¶ 64), i.e., a database, and "transform[ing] sequence-dependent data structures into independent structures in the form of generated decision rules" (*id.* ¶ 69). *See also id.* ¶¶ 63, 65, 66. As such, the transforming of the questions can be organizing the data into a table. The Specification also discusses generating rules based on facts and conclusions (*id.* ¶ 66–68), deriving rules from rows of the decision table (*id.* ¶ 69), parsing or segmenting and processing rules to

determine individual elements and inverses thereof (*id.* ¶ 70), having

invalidation rules that specify when a rule is invalid (*id.* ¶ 72), and

"generat[ing] decision rules . . . that can be executed to make a

determination or conclusion regarding a tax topic . . . [and] two different sets

of meta rules . . . based on or derived from the same set of generated

decision rules" (*id.* ¶ 73). The Specification also discusses that if "the

answer 533 is the same as or satisfies all of the elements or conditions 1102

of a decision rule 462d, then the rule engine 540 executes that decision rule

462d using the received input 433 resulting in a determination 550 that the

tax topic applies to the user 415." *Id.* ¶ 76. As such, the determining steps

comprise analyses such as parsing and comparing. Regarding invalidating a

rule, the Specification discusses that when a rule is determined invalid, that

rule can be eliminated from further consideration, i.e., no longer used in the

analyses. *Id.* ¶ 72. The limitation of executing an action can comprise

identifying a form, populating a form, or notifying a user. *See id.* ¶¶ 76, 77;

Appeal Br. 8–9. The Specification provides no further details for how the

preparing and generating limitations are performed, and thus, those

limitations can comprise the creating of data. *See, e.g.*, Spec. ¶¶ 47–51,

67–78, Figs. 4, 5, 17, 18; Appeal Br. 3–9.

When considered collectively and under the broadest reasonable

interpretation, the limitations of claim 1 recite a method for allowing a

personalized interview for the purpose of tax preparation by generating,

storing, and presenting data, analyzing data based on input, and performing

an action based on the analysis.[12] This is an abstract idea of a "[c]ertain method[] of organizing human activity" including "commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations)" and "managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions)." 2019 Revised Guidance, 84 Fed. Reg. at 52.

Our reviewing court has held similar concepts to be abstract. For example, the Federal Circuit has held abstract the concepts of customizing information based on known user information in *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369–70 (Fed. Cir. 2015) ("*Capital One Bank*"), customizing a user interface based on user selections in *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1271 (Fed. Cir. 2016), collecting, analyzing, manipulating, and processing data and displaying the results of the analysis, manipulation, and processing in *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017) ("*Capital One Fin.*"), "selecting certain information, analyzing it using mathematical techniques, and reporting or displaying the results of the analysis" in *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018), and "gathering and analyzing information of a specified content, then displaying the results" in *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). As such, we disagree

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[12] We note 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). The Board's "slight revision of its abstract idea analysis does not impact the patentability analysis." *Id.* at 1241.

with the Appellant's contentions that the Examiner oversimplifies and overgeneralizes the claim, ignores claim limitations, and "refers to certain piecemeal limitations of different claim elements at a very high (if not highest) level of abstraction." Appeal Br. 14; *see also id.* 15–21; Reply Br. 1–3.

Having concluded that claim 1 recites a judicial exception, i.e., an abstract idea, in determining whether the claim is directed to this abstract idea, we next consider whether the claim recites additional elements that integrate the judicial exception into a practical application.

Integration into a Practical Application

Under Step 2A, Prong Two of the 2019 Revised Guidance, 84 Fed. Reg. at 54, we look to whether the claim "appl[ies], rel[ies] on, or use[s] the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception," i.e., "integrates a judicial exception into a practical application." Here, the only additional elements recited in claim 1 beyond the abstract idea are "a computer programmed according to instructions of a tax return preparation application," "a data store," "an interview screen," "a display," and "a rule engine," elements that, as the Examiner observes (*see* Final Act. 4–5), are described in the Specification as generic computing elements. For example, the Specification discusses a system that "comprises or involves a computer, computing device or communication device" with a user that "utilizes a tax preparation application 420 such as TURBOTAX tax preparation application" by using a computer that "may be a desktop or laptop computer or other computing or communication device such as a tablet computing or communication device

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or mobile communication device such as a smartphone," that is connected to other computers via a generic network. Spec. ¶¶ 52, 53, Fig. 4. The Specification also discusses that the rule engine is part of the tax application software and the data store is a generic database. *Id.* ¶ 58, Fig. 5; *see also id.* ¶¶ 54–57, 103–106, Fig. 19 (describing generic computing components and not limiting the invention to the specific structure described).

We find no indication in the Specification, nor does the Appellant direct us to any indication, that the operations recited in claim 1 require any specialized computer hardware or other inventive computer components, i.e., a particular machine, invoke any asserted inventive programming, or that the claimed invention is implemented using other than generic computer components to perform generic computer functions. *See DDR Holdings*, 773 F.3d at 1256 ("[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.").

The Appellant contends that "[p]rior art and technological improvements provided by the subject claims are at least more similar to McRO, Enfish . . . , Visual Memory . . . , Amdocs, and also more similar to patent-eligible decisions involving user interfaces including Core Wireless . . . and Trading Technologies (non-precedential)." Appeal Br. 21–22 (citing *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), *Enfish*, 822 F.3d 1327, *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253 (Fed. Cir. 2017), *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016), *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018), *Trading Techs. Int'l, Inc. v. CQG, INC.*, 675 F. App'x 1001 (Fed. Cir. 2017)). We disagree.

The Appellant does not provide reasoning or evidence, and we do not see from the claim, how the limitations claim a technological solution to computer-based problem, i.e., a solution "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *DDR Holdings*, 773 F.3d at 1257; *cf.* Appeal Br. 27–38. The Appellant does not specify what problem is being addressed by the inventors (*see* Appeal Br. 27–34), and the Specification does not address what problem(s) the invention attempts to address. At best, the Appellant contends, and the Specification indicates, that the purpose of the invention is to address problems related to tax preparation applications providing a relevant, personalized tax preparation experience. *See* Appeal Br. 34; Spec. ¶¶ 1–3, 47). Providing more relevant and personalized experiences is not a problem rooted in technology, but existed prior to the internet. *See Capital One Bank*, 792 F.3d at 1369; *Affinity Labs.*, 838 F.3d at 1271.

Further, the purported solution comprises a generic computer operating in its ordinary and conventional capacity. *See supra*; *see also Alice*, 573 U.S. at 224–26. The Appellant does not contend that they invented any of the claimed components or their basic functions or that those components, claimed generally, were unknown in the art as of time of the invention. *Affinity Labs*, 838 F.3d at 1270. The "focus" of the claim is not "on the specific asserted improvement in computer capabilities" (*Enfish*, 822 F.3d at 1336), but rather on using a computer to implement the abstract idea of providing a personalized experience in the particular field of electronic tax preparation. *See Alice*, 573 U.S. at 223 (holding that attempting to limit the use of an abstract idea to a particular technological environment does not

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make a claim patent-eligible) (quoting *Bilski*, 561 U.S. at 610–11); *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016) ("merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claim[] any less abstract").

Regarding the Appellant's comparisons of claim 1 with *McRO* (*see* Appeal Br. 22–26, 43, 46), in *McRO*, the claims were directed to a specific improvement in computer technology. The recited steps in the claim here are distinguishable from the steps in *McRO* found to make the claim patent eligible. In *McRO*, the court found that, while the *McRO* claims involved the manipulation of data, e.g., generating morph weight sets to animate lip and facial expressions of three-dimensional characters, the claimed "automation goes beyond merely 'organizing [existing] information into a new form' or carrying out a fundamental economic practice." *McRO*, 837 F.3d at 1315 (citation omitted). Instead, the court found that the "claimed process uses a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results: a sequence of synchronized, animated characters." *Id.* *McRO* found that the recited rules "are limiting in that they define morph weight sets as a function of the timing of phoneme sub-sequences." *Id.* at 1313. The claims were found to be directed to a "technological improvement over the existing, manual 3-D animation techniques." *Id.* at 1316. In finding the claims patent-eligible, *McRO* noted that the "abstract idea exception has been applied to prevent patenting of claims that abstractly cover results where 'it matters not by what process or machinery the result is accomplished.' [*O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 113 (1853)]; *see also Mayo*, [566 U.S. at 85]." *McRO*, 837 F.3d at 1314. Here, the steps are not limited to

how they are accomplished, but rather recite the result of whatever process is used to organize, generate, store, receive, and analyze data, and perform an action based on the results of the analysis. As discussed above, these limitations say little about how these functions are performed. *Cf. SAP Am.*, 898 F.3d at 1167 (explaining that the claims in *McRO* "avoided being 'abstract' in another sense reflected repeatedly in our cases" because "they had the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it"). Here, the use of the rules does not go beyond simply organizing data in the form of a table, graph, or flowchart and using the rules in analyses for carrying out a method of organizing human activity. Unlike *McRO*, the use of the rules does not render information in a specific format to improve technology or a technical process. The Appellant asserts that the claim "improves the existing technological process of existing computerized tax return preparation applications" by "generat[ing] dynamic user interfaces and interactions personalized for [the] user." Appeal Br. 22. However, tax preparation is not a technological field. Any improvement is in the abstract idea itself, i.e., in the analyses of "determining whether a certain tax situation or topic applies to a user by asking a subset of a set of questions that would normally be asked of the user to reach the same conclusion" (Spec. ¶ 2) and in providing a personalized experience. The Appellant does not direct our attention to anything in the Specification to indicate that the invention provides a *technical* improvement in how the user interfaces are dynamically generated; rather, the claim recites generating and organizing rule data and determining the information to be presented based on analyzing user input using the rule data.

The Appellant's comparisons with *Enfish* (*see* Appeal Br. 27–28, 46) are also unpersuasive of Examiner error. In *Enfish*, the court held that the focus of the claims was to "a specific improvement to the way computers operate, embodied in the self-referential table." 822 F.3d at 1336. Specifically, "the claims [were] not simply directed to *any* form of storing tabular data, but instead [were] specifically directed to a *self-referential* table for a computer database." *Id.* at 1337. The Specification provided that "the self-referential table function[ed] differently than conventional database structures" (*id.* at 1337) and improved "the way a computer stores and retrieves data in memory" (*id.* at 1339). Here, however, the claim organizes information using a generic table and does not use or create an unconventional database structure. The focus of the claim is unrelated to how databases and tables function. Under the claimed method, information generated by a computer is stored to a data store whose data are searched and analyzed based on user input so that some action can be performed based on the results. The Appellant does not purport to have invented the claimed database or tables. Rather, the Specification indicates that such databases and tables predated the claimed invention. *See* Spec. ¶¶ 58, 64 (discussing a generic database and table); *see also BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1286 (Fed. Cir. 2018) ("BSG Tech does not purport to have invented database structures that allow database users to input item data as a series of parameters and values. The '699 specification makes clear that such databases predate the claimed invention."). The claim does not recite any improvement to the way in which the database and tables store or organize information analogous to the self-referential table in *Enfish*.

As discussed above, there is no claimed improvement to technology or a technical field. The Appellant's assertion that the claimed table "improve[s] the way a computer stores and retrieves data in memory for rule generation which involves disassociating questions from pre-determined sequences or structures" (Appeal Br. 27) is unsupported attorney argument. The Specification does not discuss, and the Appellant does not provide adequate reasoning, how the claimed use of its table with rule data provides a technical or technological improvement to data structures or computer storage. "[A]n improvement to the information stored by a database [or table] is not equivalent to an improvement in the database's [or table's] functionality." *BSG Tech*, 899 F.3d at 1288. That the claimed invention may have "the added benefit of reducing processor and memory resources that are required by improving upon user interaction and user experience via a computing device display and other computing hardware" (Appeal Br. 27) is ancillary; the data store, i.e., table, serves in its ordinary capacities of storing and organizing information. At best, this establishes that the claimed invention provides an improved analytical way, i.e., an improved abstract idea, for use in providing a customized tax preparation experience, using conventional components. Yet, as the court expressly recognized in *Enfish*, there is a fundamental difference between computer functionality improvements, on the one hand, and uses of existing computers as tools to perform a particular task, on the other. The alleged advantages that the Appellant touts do not concern an improvement to computer capabilities, but instead relate to an alleged improvement in a method of providing a personalized interview for the purpose of tax preparation — a process in which computer components are used as tools in their ordinary capacities.

Similarly, the Appellant's reliance on *Amdocs* (*see* Appeal Br. 28, 43) is misplaced. In *Amdocs*, the Federal Circuit held the claim was patent eligible because the claim entailed an unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases). Although the solution required generic components, the court adopted the district court's interpretation of the claim term "enhance," stating, it approved "reading the 'in a distributed fashion' and the 'close to the source' of network information requirements into the term 'enhance,'" and determined that "the claim's enhancing limitation necessarily requires that these generic components operate in an unconventional manner to achieve an improvement in computer functionality" and that the "enhancing limitation depends not only upon the invention's distributed architecture, but also depends upon the network devices and gatherers—even though these may be generic—working together in a distributed manner." *Amdocs*, 841 F.3d at 1300–01. Here, there is no similar evidence that the architecture of the generic computer, tax preparation application, data store, rule engine, display, and network is comparable to the components in *Amdocs* or otherwise establishes that the connection or devices operate in an unconventional manner. The Appellant contends, without support, that the claim provides "improvements in question selection accuracy and user interface structure and question selection efficiency." Appeal Br. 28 (emphasis omitted); *see also id.* at 29. However, improving the accuracy or efficiency of selecting questions, i.e., analyzing information, does not "materially alter the patent-eligibility of the claimed subject matter." *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266,

1278 (Fed. Cir. 2012); *see also Capital One Bank*, 792 F.3d at 1367, 1370 ("our precedent is clear that merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea").

The Appellant also contends that claim 1 is similar to the claims held patent-eligible in *Core Wireless* because the "incorporation of generating and executing rules also provides an improved user interface and a specific manner of displaying content of a computerized tax return preparation application," and because "by being free of constraints of pre-determined question sequencing of conventional systems, embodiments also allow a user to be presented with the most relevant data or interview screens (personalization), without paging through multiple screens of options." Appeal Br. 29–30. In *Core Wireless*, the claims were directed to "an improved user interface for electronic devices, particularly those with small screens." *Core Wireless*, 880 F.3d at 1363. There, the specification described that "prior art interfaces had many deficits relating to the efficient functioning of the computer, requiring a user 'to scroll around and switch views many times to find the right data/functionality'" and disclosed that the claimed invention improved the "efficiency of using the electronic device by bringing together 'a limited list of common functions and commonly accessed stored data,' which can be accessed directly from the main menu." *Id*. The specification also disclosed that "[t]he speed of a user's navigation through various views and windows" was improved because it "saves the user from navigating to the required application, opening it up, and then navigating within that application to enable the data of interest to be seen or a function of interest to be activated" — disclosure that the Federal Circuit

concluded "clearly indicates that the claims are directed to an improvement in the functioning of computers, particularly those with small screens." *Id.* Here, as discussed above, we find no indication in the Specification, nor does the Appellant direct us to any indication, that claim 1 is directed to an improved interface analogous to the one in *Core Wireless* that provides an improvement in computer functionality or that claim 1 uses anything other than conventional interface methods to present an interview screen, receive input, and performing some action, such as displaying information, based on the results of analyses. *Cf. Apple*, 842 F.3d at 1240–43 (Fed. Cir. 2016) (noting a user interface that generates and displays selectable user interface elements from other selectable user interface elements does not transform an otherwise abstract idea into eligible subject matter); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096 (Fed. Cir. 2016) (noting use of a generic computer element like a user interface is not patent-eligible subject matter); *Capital One Fin.*, 850 F.3d at 1342 (noting a user interface that provides little more than an unspecified set of rules for displaying and organizing elements does not recite eligible subject matter).

We disagree that the claim "provide[s] a types [sic] of efficiency and accuracy improvements by generation of computer generated user interface or interview screens" (Appeal Br. 31) similar to the claims in *Trading Tech.* In *Trading Tech.*, the Federal Circuit affirmed the district court's denial of CQG's motion for judgment as a matter of law and determined that "the claimed subject matter is 'directed to a specific improvement to the way computers operate,' . . . for the claimed graphical user interface method imparts a specific functionality to a trading system 'directed to a specific implementation of a solution to a problem in the software arts.'" 675

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F. App'x at 1006 (citations omitted). Specifically, the Federal Circuit held that the district court's conclusion that "the specific structure and concordant functionality of the graphical user interface are removed from abstract ideas, as compared to conventional computer implementations of known procedures" was in "accord with precedent." *Id.* at 1005. In contrast, here, the Appellant does not identify how the claim solves a problem in the software arts. The Appellant does not direct our attention to, and we do not see anything in, the record that provides an indication how the claimed invention increases the "efficiency and accuracy" by generating screens. As discussed above, a generic computer is used to generate an interview screen, claim 1 provides no details on how, technologically, the screen is generated, and there is no indication that claim 1 improves the functioning of the computer, makes it operate more efficiently, or solves a technological problem with a solution rooted in computer technology. Claim 1 simply displays information based on analyses; there is no improvement to the existing display or graphical user interface. Rather, the claim here is similar to those of *Trading Tech. Int'l., Inc. v. IBG LLC*, 921 F.3d 1094 (Fed. Cir. 2019) ("*Trading Tech. II*") that did not "solve any purported technological problem." Any improvement lies in the process of personalizing information to present to a user for a customized tax preparation experience, the abstract idea itself, not to any technological improvement.

We are further not persuaded by the Appellant's argument that claim 1 is similar to hypothetical Example 23 of the USPTO's "July 2015 Update Appendix 1: Examples," because of the claim's "adaptive and dynamic nature . . . to provide for personalized interactions and user interfaces." Appeal Br. 32. Hypothetical claim 1 of Example 23 is directed

to a computer-implemented method for dynamically relocating information on a graphical user interface ("GUI") if a window overlap condition exists. The July 2015 Update explains, at page 9 of Appendix 1, that the hypothetical example's claim 1 is patent eligible because it is not directed to an abstract idea (e.g., it "does not recite any mathematical concept or a mental process such as comparing or categorizing information"), but instead is "necessarily rooted in computer technology to overcome a problem [i.e., overlapping windows and obscured text in GUIs] specifically arising in graphical user interfaces." Here, there is no such improvement in computer technology that overcomes a problem specifically arising in user interfaces.

Similarly, the Appellant's arguments concerning *Visual Memory* are not persuasive. In *Visual Memory*, the problem solved by the invention stemmed from the shortcomings of prior art computer "memory systems." *Visual Memory*, 867 F.3d at 1255. Specifically, "[t]hese prior art memory systems lacked versatility because they were designed and optimized based on the specific type of processor." *Id.* And, inasmuch as "prior art memory systems possessed the flexibility to operate with multiple different processors, this one-size-fits-all approach frequently caused a tradeoff in processor performance." *Id.* at 1259. With the *Visual Memory* system, "a programmable operational characteristic" determined "a type of data stored by said cache." *Id.* at 1257. This improvement allowed the same memory system to be used with different types of processors without a compromise in processor performance. *Id.* at 1259. Here, the Appellant is not trying to cure a shortcoming in existing computer technology or present an improvement to technology. The Appellant does not contend that it was necessary to develop innovative computer hardware/ software in order to

perform the steps recited in independent claim 1. As discussed above, the Appellant does not contend that known computer system, databases, and displays were incapable of providing personalized content based on analyses.

The Appellant's argument that the Specification discusses a number of technological improvements (*see* Appeal Br. 34–37) is also not persuasive that the claim integrates the abstract idea into a practical application. Claim 1 does not recite "transforming sequence-dependent data structures into sequence independent rules that can be executed to select various questions for presentation to the user." *Id.* at 35 (quoting Spec. ¶ 4) (emphasis omitted). Rather, as discussed above, claim 1 recites transforming question data by organizing them into tables. Similarly, claim 1 does not recite eliminating pre-determined sequence constraints (*id.* at 36), eliminating a question or associated questions (*id.* at 35–37), or disassociating questions from pre-determined sequences (*id.* at 36). Further, the "improvements" cited eliminating or invalidating rules that are generated to reduce the number of generated rules to be selected (*id.* at 35) and narrowing the scope of and eliminating questions so as not be presented to the user so as to present more relevant questions (*id.* at 35–37) are not technological improvements, but improvements to personalized interviews for the purpose of tax preparation, the abstract idea itself.

Regarding the Appellant's further argument that the claim is similar to those of *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (*see* Appeal Br. 43, 45–46), the Appellant does not show how the claim here is similar to *BASCOM*'s "particular arrangement of elements [that] is a technical improvement over prior art

ways of filtering such content" (827 F.3d at 1350). The patent at issue in
BASCOM "claim[ed] a technology-based solution (not an abstract-idea-
based solution implemented with generic technical components in a
conventional way) to filter content on the Internet that overcomes existing
problems with other Internet filtering systems." *Id.* at 1351. The court
determined that "[b]y taking a prior art filter solution (one-size-fits-all filter
at the ISP server) and making it more dynamic and efficient (providing
individualized filtering at the ISP server), the claimed invention represents a
'software-based invention[ ] that improve[s] the performance of the
computer system itself.'" *Id.* Here, there is no such improvement.
Although the claim recites the structural element of a programmed
computer, a data store, a rule engine, and a display, as discussed above, there
is no claimed technological improvement to these structures or arrangement
of these structures. Any improvement in the lies in the abstract idea itself,
i.e., personalized tax preparation interviews.

Regarding the Appellant's argument that the "the claims most
certainly do not pre-empt 'generating a personalized interview experience
for a user of a tax preparation application' and certainly do not pre-empt
'organizing information'" (Appeal Br. 39), although the Supreme Court has
described "the concern that drives this exclusionary principle[, i.e., the
exclusion of abstract ideas from patent-eligible subject matter,] as one of
pre-emption" (*see Alice*, 573 U.S. at 216), characterizing preemption as a
driving concern for patent eligibility is not the same as characterizing
preemption as the sole test for patent eligibility. "The Supreme Court has
made clear that the principle of preemption is the basis for the judicial
exceptions to patentability" and "[f]or this reason, questions on preemption

are inherent in and resolved by the § 101 analysis." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 573 U.S. at 216). Although "preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Id.*

Accordingly, we conclude claim 1 does not contain an element or combination of elements that imposes a meaningful limit on the abstract idea that integrates the abstract idea into a practical application.

Thus, we are not persuaded of error in the Examiner's determination that claim 1 is directed to an abstract idea.

Step Two of the Mayo/Alice Framework

Under the second step in the *Alice* framework (corresponding to Step 2B of the 2019 Revised Guidance), we find supported the Examiner's determination that claim 1's limitations, taken individually or as an ordered combination, do not amount to significantly more than the judicial. *See* Final Act. 3–5; Ans. 4–5, 8–9.

The Appellant contends

> that the claims include specific, concrete limitations that, when properly construed in combination and not ignored, are not well understood, routine and conventional or previously known to the industry and contain an "inventive concept" sufficient to constitute significantly more than what is alleged, and significantly more than a properly established abstract idea to which it is demonstrated the claims are directed.

Appeal Br. 41. The Appellant also argues that the Examiner, in the Final Action, "does not even address all of the additional limitations for Step 2B" (*id.*) and "has not demonstrated that various components, rule sets and data structures are 'generic'" (*id.* at 43). The Appellant argues that the

Examiner's rejection "further fails to provide any explanation demonstrating that the combination of claim limitations including a special purpose computerized tax return preparation application, components thereof, specific rule sets and rule attributes, and data structures is generic" (Appeal Br. 43) in line with the USPTO Memorandum on Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*) (April 19, 2018) ("*Berkheimer* Memo") (Appeal Br. 46–48; *see also* Reply Br. 4–5). We disagree.

As discussed above, under Step 2B we look to whether the additional elements beyond the abstract idea, individually or in combination, provide an inventive concept. 84 Fed. Reg. at 55. *Alice* is clear, as described above, that under step two of the *Mayo/Alice* framework, the elements of each claim are considered both individually and "as an ordered combination" to determine whether the additional elements, i.e., the elements other than the abstract idea itself, "transform the nature of the claim" into a patent-eligible application. *Alice*, 573 U.S. at 217; *see also Mayo*, 566 U.S. at 72–73 (requiring that "a process that focuses upon the use of a natural law also contain other elements or a combination of elements, sometimes referred to as an 'inventive concept,' sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself") (emphasis added). In other words, the inventive concept under step two of the *Mayo/Alice* framework cannot be the abstract idea itself: "It is clear from *Mayo* that the 'inventive concept' cannot be the abstract idea itself, and *Berkheimer* . . . leave[s] untouched the numerous cases from this court which have held claims ineligible because the only alleged 'inventive concept' is the abstract idea." *Berkheimer v. HP, Inc.*, 890 F.3d 1369, 1374

(Fed. Cir. 2018) (Moore, J., concurring) (*Berkheimer II*); *see also BSG Tech,* 899 F.3d at 1290 ("It has been clear since *Alice* that a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention 'significantly more' than that ineligible concept.") (citation omitted).

To the extent the Appellant argues that claim 1 recites elements that amount to significantly more than the abstract idea because the claim provides "various prior art . . . improvements" and contains "specific, concrete limitations that . . . are not . . . previously known to the industry" (Appeal Br. 41; *see also id.* at 21, 22, 39), an abstract idea does not transform into an inventive concept just because the prior art does not disclose or suggest it. *See Mayo*, 566 U.S. at 78. "Ground-breaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry." *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013). Indeed, "[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; *see also Mayo*, 566 U.S. at 91 (rejecting "the Government's invitation to substitute §§ 102, 103, and 112 inquiries for the better established inquiry under § 101").

Here, the Examiner considers the only additional element beyond the abstract idea to be the computer that is programmed to perform all of the limitations of claim 1. *See* Final Act. 4. We note that, as discussed above, the claimed "data structures" comprise a conventional data table to which there is no technical or technological improvement. There is no claimed

structure for "rule sets" beyond the generating, storing, and use of rules for analysis, which are part of the abstract idea. We note that, as discussed above with respect to Step 1 of the *Alice/Mayo* framework, the claims simply recite the functional results to be achieved by a conventional computing system and server. The claims "provide[] only a result-oriented solution[] with insufficient detail for how a computer accomplishes it. Our law demands more." *Capital One Fin.*, 850 F.3d at 1342. The claimed functions of transforming a representation of questions into a table, generating and storing rule sets, generating an interview screen for display, receiving input, executing an engine to perform an analysis comprising determining, invalidating, and executing a rule, and executing an action based on the analysis are part of the abstract idea itself; they are not additional elements to be considered when determining whether claim 1 includes additional elements or a combination of elements that is sufficient to amount to significantly more than the judicial exception.

As discussed above, the only claim elements beyond the abstract idea are the computer that performs the steps, a data store, an interview screen, a display, and a rule engine, recited generally, and that the Specification indisputably shows were conventional at the time of filing. *See supra*; Spec. ¶¶ 52–57, 103–106, Figs. 4, 5, 19. The Appellant does not provide any supported reasoning or explanation that the functions of transforming, i.e., organizing, data into a table, generating data, storing data, receiving data, analyzing data, invalidating, i.e., eliminating, data, and executing actions based on the analysis are not well-understood, routine, and conventional. And, in compliance with the *Berkheimer* Memo, the Examiner provides support for the claimed functions being "conventional and basic functions of

a computer system" by citing to a court decision. Ans. 11; *cf.* Reply Br. 4; *Berkheimer* Memo 4.

The Appellant cannot reasonably maintain that there is a genuine issue of material fact regarding whether operation of the claimed hardware or computer elements is well-understood, routine, or conventional, where, as here, there is nothing in the Specification to indicate that the operations recited in claim 1 require any specialized hardware or inventive computer components, or that the claimed invention is implemented using other than generic hardware or computer components to perform the generic computer functions as discussed above. Indeed, the Federal Circuit, in accordance with *Alice*, has "repeatedly recognized the absence of a genuine dispute as to eligibility" where claims have been defended as involving an inventive concept based "merely on the idea of using existing computers or the Internet to carry out conventional processes, with no alteration of computer functionality." *Berkheimer II*, 890 F.3d at 1373 (Moore, J., concurring) (citations omitted); *see also BSG Tech*, 899 F.3d at 1291 ("BSG Tech does not argue that other, non-abstract features of the claimed inventions, alone or in combination, are not well-understood, routine and conventional database structures and activities. Accordingly, the district court did not err in determining that the asserted claims lack an inventive concept.").

Here, as discussed above, the elements other than the abstract idea are recited at a high level of generality and are used in their ordinary and conventional capacities to organize, generate, store, receive, analyze, and eliminate data, and execute an action based on the analysis. *See Capital One Fin.*, 850 F.3d at 1341 (holding that collecting, organizing, identifying, mapping, organizing, defining, and detecting was abstract); *Capital One*

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Bank, 792 F.3d at 1369–71 (holding that "the entry of data into a computer database, the breakdown and organization of that data according to some criteria, . . . and the transmission of information derived from that entered data to a computer user, all through the use of conventions components, such as a database and processors, operation in a convention manner" did not transform a patent-ineligible process into something more); *Elec. Power*, 830 F.3d at 1355 (gathering, sending, monitoring, analyzing, selecting, and presenting information does not transform the abstract process into a patent-eligible invention); *FairWarning*, 839 F.3d at 1095 (generating a rule related to accessing information, applying the rule, and storing and announcing the result did not transform the abstract idea into a patent-eligible invention); *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that sequence of data retrieval, analysis, modification, generation, display, and transmission was abstract).

Thus, we are not persuaded of error in the Examiner's determination that the limitations of claim 1 do not transform the claim into significantly more than the abstract idea.

For at least the reasons above, we sustain the Examiner's rejection under 35 U.S.C. § 101 of independent claim 1.

Dependent claims 3, 5–10, 13–16, 19–24, and 27–37

The Appellant presents the same arguments for the rejection of the dependent claims as for claim 1. *See* Appeal Br. 11–24, 26–45, 47–49; Reply Br. 1–5. For the reasons provided above for independent claim 1, we are not persuaded of error by these arguments.

The Appellant further argues that the dependent claims are similar to those of *McRO* because "various dependent claims also recite specific limitations regarding rules, rule generation and processing and particular limitations of data structures and transformation of same utilized for generation of certain rules that improve existing technological processes of computerized tax return preparation applications and user interfaces generate." Appeal Br. 25. Specifically, the Appellant directs attention to dependent claims 3, 5–10, 13, and 14. *Id.* at 25–26.

However, as discussed above, the recited steps in the dependent claims here, like independent claim 1, are distinguishable from the steps in *McRO* found to make the claim patent eligible. Here, the dependent claims further narrow the table format and type of data (claims 3, 5, and 13) and add further steps of a second transformation of data from questions to a generated graph with a specific format (claims 6, 14), and a third representation of questions into the second transformation or a flow chart with specific data and format (claims 7–10). *See* Appeal Br. 25–26, 51–54 (Claims App.). As with claim 1, the steps are not limited to how they are accomplished, but rather recite the result of whatever process is used to transform/organize and generate data, a graph, and a flow chart with little about how these functions are performed. As with claim 1 and unlike *McRO*, the use of the rules does not render information in a specific format to improve technology or a technical process. The Appellant asserts that the claims "improve existing technological processes of computerized tax return preparation applications and user interfaces generate." *Id.* at 25. However, as with claim 1, tax preparation is not a technological field, and electronic

tax preparation is merely tax preparation in a particular existing technological environment that does not render the claims any less abstract.

The Appellant also argues that the Examiner's "conclusory, non-substantive allegations in page 5, lines 4-5 of the Final Action allegations that 'dependent claims are recited at a high level of generality or simply perform generic functions' are also in error in view of the detailed limitations in the dependent claims noted above and other dependent claims." Appeal Br. 26. However, a detailed abstract idea is still an abstract idea. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–15 (Fed. Cir. 2014) (limitations adding a degree of particularity did not make the 11-step claim any less abstract). The Appellant provides no further specific reasoning why the dependent claims are patent eligible.

For at least the reasons above, we sustain the Examiner's rejection under 35 U.S.C. § 101 of dependent claims 3, 5–10, 13–16, 19–24, and 27–37.

CONCLUSION

The Examiner's decision to reject claims 1, 3, 5–10, 13–16, 19–24, and 27–37 under 35 U.S.C. § 101 is sustained.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3, 5–10, 13–16, 19–24, 27–37	101	Eligibility	1, 3, 5–10, 13–16, 19–24, 27–37	

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)(l)(iv) (2017).

<u>AFFIRMED</u>