UNITED STATES PATENT AND TRADEMARK OFFICE

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PTOL-90A (Rev. 04/07)

UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
_____

Ex parte JAMES EMMETT STEVENSON, GUIDO BEAT ZGRAGGEN,
and ROHIT MATHEW EIPE
_____

Appeal 2018-008742
Application 14/074,275
Technology Center 3600
_____

Before JOHN A. EVANS, JOHN P. PINKERTON, and
MICHAEL M. BARRY, *Administrative Patent Judges*.

EVANS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants[1] seek our review under 35 U.S.C. § 134(a) from the
Examiner's final rejection of Claims 1–20, which constitute all pending
claims. App. Br. 4. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.[2]

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[1] Appellants state the real party in interest is Amazon Technologies, Inc.,
which is a subsidiary of Amazon.com, Inc. App. Br. 2.
[2] Rather than reiterate the arguments of Appellants and the Examiner, we
refer to the Appeal Brief (filed July 5, 2017, "App. Br."), the Examiner's
Answer (mailed July 27, 2018, "Ans."), the Final Office Action (mailed
March 15, 2017, "Final Act."), the Non-Final Office Action (mailed July 29,
2016, "Non-Final Act."), and the Specification (filed November 7, 2013,

STATEMENT OF THE CASE

The claims relate to obtaining a voice command from a client, identifying and disambiguating an ambiguous term using user data, and performing an action according to the disambiguated term. Abstract.

Invention

Claims 1, 4, and 14 are independent. An understanding of the invention may be derived from a reading of Claim 1, which is reproduced below.

> 1. A non-transitory computer-readable medium embodying a program executable in at least one computing device, wherein, when executed, the program causes the at least one computing device to at least:
>
> obtain, from a user of an electronic commerce system, a voice command comprising a plurality of terms;
>
> identify at least one ambiguous term in the plurality of terms;
>
> disambiguate the at least one ambiguous term by:
>
> > determining if the at least one ambiguous term corresponds to one of a plurality of previously purchased items;
> >
> > selecting an item corresponding to the at least one ambiguous term as the one of the plurality of previously purchased items responsive to the at least one ambiguous term corresponding to the one of the plurality of previously purchased items; and
> >
> > selecting, responsive to the at least one ambiguous term not corresponding to the one of the plurality of previously purchased items, the item corresponding to the ambiguous term as a function of at least one of a

"Spec.") for their respective details.

purchase habit corresponding to the user, or a purchase history of the user; and

generate an order via the electronic commerce system including the item corresponding to the at least one ambiguous term.

Rejection[3]

Claims 1–20 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception (abstract idea) without significantly more. Final Act. 2 (citing Non-Final Act. 2–5).

ANALYSIS

We have reviewed the rejection of Claims 1–20 in light of Appellants' arguments. We have considered in this Decision only those arguments Appellants actually raised in the Briefs. Any other arguments which Appellants could have made, but chose not to make in the Briefs are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). We adopt as our own the determinations and reasons set forth in the rejection from which this appeal is taken and in the Examiner's Answer, to the extent consistent with our analysis below. We provide the following explanation to highlight and address specific arguments and determinations primarily for emphasis.

Based upon our *de novo* review of the record in light of recent Director Policy Guidance[4] with respect to patent-eligible subject matter

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[3] The Examiner also rejected claims 1–20 under 35 U.S.C. § 103(a) as being unpatentable over Ramer et al. (US 2007/0192294 A1; Aug. 16, 2007) ("Ramer") and Longe et al. (US 2006/0013487 A1; Jan. 19, 2006) ("Longe"). Final Act. 3–12. However, the Examiner withdrew this rejection. Ans. 3.

[4] USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84(4) Fed. Reg. 50–57 (Jan. 7, 2019) ("Revised Guidance" or "Rev. Guid.").

rejections under 35 U.S.C. § 101, we sustain the rejection of Claims 1–20.
"Whether a claim is drawn to patent-eligible subject matter is an issue of law
that we review de novo." *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d
1319, 1331 (Fed. Cir. 2010).

Appellants present arguments for the pending claims as a group. *See*
App. Br. 4–19. We decide the appeal of the § 101 rejection with reference
to representative Claim 1.[5] We refer to the rejected claims collectively
herein as "the claims." *See* 37 C.F.R. § 41.37(c)(1)(iv); *see also In re King*,
801 F.2d 1324, 1325 (Fed. Cir. 1986).

We consider Appellants' arguments *seriatim*, as they are presented in
the Appeal Brief, pages 4–19, and Reply Brief, pages 3–21.

CLAIMS 1–20: INELIGIBLE SUBJECT MATTER.

PRINCIPLES OF LAW

A.   35 U.S.C. § 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.[6] The
Supreme Court, however, 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) (quoting *Diamond v. Diehr*, 450 U.S. 175, 185
(1981)).

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[5] Our § 101 analysis for Claim 1 applies equally to claims 2–20.
[6] 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 patent-eligibility
inquiry under 35 U.S.C. § 101.

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 id.* 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; *see also 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" (*Diehr*, 450 U.S. at 191); "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 (1854))); 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.* (citing *Benson*, 409 U.S. at 63; *Flook* 437 U.S. at 594); *see also 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 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 (internal 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.* (quoting *Mayo*, 566 U.S. at 77 (alteration in original)). "[M]erely requiring generic computer implementation fails to transform that abstract idea into a patent-eligible

invention." *Id.* at 212.

B.   United States Patent and Trademark Office Revised Guidance

The USPTO recently published Revised Guidance in the Federal Register concerning the application of § 101. Rev. Guid., 84 Fed. Reg. 50–57.

Under the Revised Guidance, we first look to whether the claim recites any judicial exceptions, including certain groupings of abstract ideas ("*Step 2A(i)*"). 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;
> (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).

Rev. Guid., 84 Fed. Reg. at 52 (footnotes omitted).

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 Revised Guidance provides that the claim is patent-eligible at *Step 2A(i)*. This determination concludes the eligibility analysis, except in rare situations identified in the Revised Guidance.

If a claim recites a judicial exception in *Step 2A(i)*, 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 ("*Step 2A(ii)*").

The seven identified "practical application" sections of the MPEP,[7] 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

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application as determined under one or more of the MPEP sections cited above, do we then determine whether the additional elements of the claim, considered both individually and in combination, provide an inventive concept (i.e., whether the additional elements amount to significantly more than the exception itself) ("*Step 2B*"). Rev. Guid., 84 Fed. Reg. at 56.

Under the Revised Guidance, we must consider in *Step 2B* whether an

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[7] *See* MPEP §§ 2106.05(a)–(c), (e)–(h). Citations to the MPEP herein refer to revision [R-08.2017].

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." Rev. Guid., 84 Fed. Reg. at 56.

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-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).

Robert W. Bahr, *Changes in Examination Procedures Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (Berkheimer v. HP, Inc.)*, USPTO 1–5 (2018) ("*Berkheimer* Memo"); *see also* MPEP § 2106.05(d).

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

The Examiner's Determinations and Appellants' Contentions

The Examiner determines the claims are directed to an abstract idea. Final Act. 2 (citing Non-Final Act. 2–5); Ans. 4–12. In particular, the Examiner determines Claim 1 is "directed to an abstract idea of processing personalized voice commands in e-commerce," which "is similar to the kind of 'organizing human activity' at issue in Alice Corp." and the court-identified abstract ideas of "collecting and analyzing information to detect misuse and notifying a user when misuse is detected . . . [;] collecting, displaying, and manipulating data . . . [;] collecting information, analyzing it, and displaying certain results of the collection and analysis . . . [;] and collection, storage, and recognition of data." Ans. 5–6 (citing *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1372 (Fed. Cir. 2017). The Examiner explains that the recited concept of "disambiguating ambiguous terms with voice command shopping in ecommerce is similar to" the court-identified abstract

idea of "comparing new and stored information and using rules to identify options." Non-Final Act. 3 (citing *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App'x 950, 955 (Fed. Cir. 2014)).

The Examiner further determines that "[t]he claim[s] as a whole do[] not amount to significantly more than the abstract idea itself." *Id.* at 4; Final Act. 14–15. More specifically, the Examiner explains that the claims do not "effect an improvement to another technology or technical field; . . . amount to an improvement to the functioning of a computer itself;" or "move beyond a general link of the use of an abstract idea to a particular technological environment." Final Act. 14–15. The Examiner further explains that "the additional elements [of the claims] are simply a generic recitation of a processor (computing device) performing its generic computer functions . . . of obtaining, . . . initiating an action . . . and disambiguating that are routine, conventional and well understood." Non-Final Act. 3–4 (citing Figs. 1, 4; Spec. ¶ 11) (emphasis omitted); Final Act. 14–15.

Appellants dispute the Examiner's determination that the claims are directed to an abstract idea in the form of an idea of itself or a method of organizing human activity. App. Br. 9–15. Instead, Appellants contend the claims are directed to "a specific computer-implemented process for generating personalized item orders via an electronic commerce system according to a disambiguation of ambiguous terms included in a voice command" and, thus, "are directed to a 'patentable, technological improvement' over existing interfacing systems for electronic commerce systems." App. Br. 9.

Appellants further contend the claims "recite significantly more than an abstract idea" because they "solve a problem specifically arising in the

realm of computers to thereby improve the functioning of the computer
system itself" by reciting specific steps for disambiguating ambiguous terms
associated with a user's voice command and, in response, generating
personalized orders of corresponding items available for purchase based on
the user's purchase behavior. *See* App. Br. 16–17. In addition, Appellants
contend the "claims are directed to at least one inventive concept as an
ordered combination of elements" and are similar to the claims at issue in
Bascom and because they "improve[e] the way a computing device can
disambiguate terms included in a voice command . . . to identify items
associated [therewith] . . . that are personalized for the particular user and
generate orders for the items via the electronic commerce system." *Id.* at 17
(citing *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d
1341 (Fed. Cir. 2016)). Appellants explain that "this specific method of
improving the performance of the interfacing system for electronic
commerce systems is not conventional, generic, or well-known in the field"
because it "determine[s] the intent of the user by disambiguating the
ambiguous terms" such that "network resources can be reduced by
minimizing the amount of back and forth between the user and the electronic
commerce system." *Id.* at 17–18. Appellants also submit the claims are
patent-eligible for reasons similar to those in *Amdocs* because the
combination of any generic claim elements

> with the elements directed to disambiguating ambiguous terms
> associated with voice commands used as an interface for an
> electronic commerce system and generating personalized orders
> for corresponding items in response to disambiguating the
> ambiguous terms according to a particular user renders these
> claims not merely a "routine and conventional use of
> technology."

Id. at 18–19 (citing *Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016)).

Step 1

Claim 1 is a non-transitory computer-readable medium (manufacture) claim and, therefore, 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 preamble of Claim 1 recites:

> A non-transitory computer-readable medium embodying
> a program executable in at least one computing device,
> wherein, when executed, the program causes the at least one
> computing device to at least:

App. Br. 36 (Claims App'x). The following table compares the remaining limitations of Claim 1 to the mental processes grouping of abstract ideas set forth in the Revised Guidance.

Claim 1	Revised Guidance
[a][8] obtain, from a user of an electronic commerce system, a voice command comprising a plurality of terms;	Adds insignificant extra-solution activity to the judicial exception. Rev. Guid., 84 Fed. Reg. at 55, 55 n.31 ("mere data gathering").
[b] identify at least one ambiguous term in the plurality of terms;	Mental processes, e.g., concepts performed in the human mind including an observation, evaluation, judgment, opinion. *Id.* at 52, 52 nn.14–15.
[c] disambiguate the at least one ambiguous term by:	*Id.*

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[8] Step designators, e.g., "[a]," are added to facilitate discussion.

[d] determining if the at least one ambiguous term corresponds to one of a plurality of previously purchased items;	*Id.*
[e] selecting an item corresponding to the at least one ambiguous term as the one of the plurality of previously purchased items responsive to the at least one ambiguous term corresponding to the one of the plurality of previously purchased items; and	Adds insignificant extra-solution activity to the judicial exception. *Id.* at 55, 55 n.31 ("post-solution activity").
[f] selecting, responsive to the at least one ambiguous term not corresponding to the one of the plurality of previously purchased items, the item corresponding to the ambiguous term as a function of at least one of a purchase habit corresponding to the user, or a purchase history of the user; and	Mental processes, e.g., concepts performed in the human mind including an observation, evaluation, judgment, opinion. *Id.* at 52, 52 nn.14–15.
[g] generate an order via the electronic commerce system including the item corresponding to the at least one ambiguous term.	Adds insignificant extra-solution activity to the judicial exception. Rev. Guid., 84 Fed. Reg. at 55, 55 n.31 ("post-solution activity").

More specifically, limitations [a]–[g] of claim 1 recite a method that obtains a user's voice command including an ambiguous term, determines if the ambiguous term corresponds to an item previously purchased by the user such that, if so, selecting the corresponding item is selected, and if not, an item is selected based on purchase habit or history of the user; and generating an order including the selected item. These limitations may be described as a process for disambiguating ambiguous user input based on

user purchase behavior in order to select and order an item for a user. This process entails collecting information, analyzing it by comparing it to stored information, and providing certain results based on the collection and analysis, which is a mental process that can be performed with only pen and paper. *See* Rev. Guid., 84 Fed. Reg. at 52, 52 nn.14–15.

Claim 1 also may be described as a basic marketing or sales process that selects items for purchase based on user input and the user's historical purchase behavior—which is a method of organizing human activity. *See* Rev. Guid., 84 Fed. Reg. at 52, 52 n.13. The Federal Circuit has identified similar concepts of making viewing recommendations based on a user's viewing history,[9] recommending products to customers based on purchase history,[10] and providing personalized recommendations[11] as abstract ideas.

In view of the foregoing, under *Step 2A(i)*, we determine Claim 1 recites steps that the Revised Guidance categorizes within the "mental processes" and "organizing human activities" groupings of abstract ideas. To the extent Claim 1 recites multiple abstract ideas, we note that "[a]dding one abstract idea . . . to another abstract idea . . . does not render the claim non-abstract." *RecogniCorp, LLC v. Nintendo Co., LTD.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017).

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[9] *Netflix, Inc. v. Rovi Corp.*, 114 F. Supp. 3d 927, 944 (N.D. Cal. 2015), *aff'd*, 670 F. App'x 704 (Fed. Cir. 2016).

[10] *Intellectual Ventures I LLC v. J. Crew Grp., Inc.*, No. 6:16-CV-196-JRG, 2016 WL 4591794, at *5 (E.D. Tex. Aug. 24, 2016), *aff'd sub nom. Intellectual Ventures I LLC v. FTD Companies, Inc.*, 703 F. App'x 991 (Fed. Cir. 2017).

[11] *Personalized Media Commc'ns, LLC v. Amazon.Com, Inc.*, 161 F. Supp. 3d 325, 338 (D. Del. 2015), *aff'd sub nom. Personalized Media Commc'ns, L.L.C. v. Amazon.com Inc.*, 671 F. App'x 777 (Fed. Cir. 2016).

We also agree with the Examiner's characterization of Claim 1 as similar to the claims in *Elec. Power Grp.* and *SmartGene*. Similar to Claim 1, in *Elec. Power Grp.*, claims that collected information, including when limited to particular content, analyzed it by steps people may go through in their minds, and displayed certain results of the collection and analysis, without more, were determined to be mental processes within the abstract-idea category of judicial exceptions. *See Elec. Power Grp.*, 830 F.3d at 1353–54. Also similar to Claim 1, the claims in *SmartGene* "involve[d] a mental process excluded from section 101: the mental steps of comparing new and stored information and using rules to identify . . . options." *SmartGene*, 555 F. App'x at 955. We are not persuaded by Appellants' argument that the claims at issue differ from those in *SmartGene* because "it is impossible to perform every claim element recited in the present claims in the human mind." App. Br. 13. In fact, both the claims at issue and those in *SmartGene* recite generic computing elements for performing similar claim functions. *Compare, e.g.*, *SmartGene*, 555 F. App'x at 951–52 (Claim 1 of U.S. Patent No. 6,081,786, which was at issue in *SmartGene*), *with* Claim 1. Moreover, such nominal recitations of generic computing elements do not preclude the claims from being in the mental processes grouping. *See* Rev. Guid., 84 Fed. Reg. at 52 n.14. In view of the foregoing, Appellants do not persuade us that the Examiner's *Step 2A(i)* analysis amounts to a "mischaracterization" of the claims. *See, e.g.*, App. Br. 6–7; Reply Br. 14.

Appellants also do not persuade us that the Examiner's determinations amount to an "oversimplification of the claims" that "wholesale ignores claim limitations" and "fails to consider the claims as a <u>whole</u>." *See* App.

Br. 6–10 (citing Non–Final Act. 3; *McRO Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016)). First, the Examiner has considered *all* of the underlying steps of claim 1 as a basis for describing the recited abstract ideas. *See, e.g.*, Non-Final Act. 3, 4; Ans. 5, 6. For example, when the Examiner determines that Claim 1 "recites the concept of disambiguating ambiguous terms with voice command shopping in ecommerce," the Examiner provides context for this determination by adding the phrase "as recited in the claim." Non-Final Act. 3; *see also* Ans. 5 (describing claims as being "directed to [the] abstract idea of processing personalized voice commands in e-commerce . . . . as recited in the claims"). Contrary to Appellants' assertions, the Examiner's approach is consistent with Supreme Court and Federal Circuit precedent, which support reasonably synthesizing the claim language when identifying a recited abstract idea. *See, e.g.*, *Bilski*, 561 U.S. at 611 ("Claims 1 and 4 in [P]etitioners' application explain the basic concept of hedging, or protecting against risk. . . . The concept of hedging, described in claim 1 and reduced to a mathematical formula in claim 4, is an unpatentable abstract idea, just like the algorithms at issue in *Benson* and *Flook*."). Second, any claim elements that may not have been explicitly discussed while identifying the recited abstract idea in *Step 2A* of the § 101 analysis have been considered and addressed with respect to *Step 2B*. For example, for *Step 2B*, the Examiner determines that Claim 1's

> additional elements are simply a generic recitation of a
> processor (computing device) performing its generic computer
> functions . . . of obtaining[] a voice command comprising a
> plurality of terms, the voice command being associated with a
> user of an electronic commerce system; disambiguating at least
> one of the plurality of terms of the voice command as a

> function of data associated with the electronic commerce
> system; and initiating an action according to the voice
> command and the disambiguating.

Non–Final Act. 3–4 (emphasis omitted); *see also* Ans. 6. This statement identifies not only the additional computing elements of Claim 1 but also the underlying functions they perform. Third, the Examiner's § 101 analysis considers the limitations of Claim 1 not just individually, but also in combination and as a whole, as evidenced by the Examiner's determinations that "[t]he claim *as a whole* does not amount to significantly more than the abstract idea itself" and "[t]aking the additional elements individually *and in combination*, the computer components (one or more devices) at each step of the process perform purely generic computer functions." Non-Final Act. 4 (emphasis added); Ans. 6 (emphasis added). In sum, the above determinations more than adequately show that the Examiner did not oversimplify Claim 1, but instead considered all the limitations of Claim 1 individually, in combination, and as a whole. Merely because the Examiner made a different determination than Appellants regarding the recited claim elements does not mean the Examiner failed to properly consider them.

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

Because the claim recites a patent-ineligible concept, we proceed to *Step 2A(ii)*. For the reasons that follow, we determine that Appellants' claims do not integrate the judicial exception into a practical application. *See* MPEP §§ 2106.05(a)–(c) and (e)–(h). We address the relevant "practical application" MPEP sections below:

> MPEP § 2106.05(a) "Improvements to the Functioning of a Computer
> or To Any Other Technology or Technical Field"
>
> "In determining patent eligibility, [E]xaminers should consider

whether the claim 'purport(s) to improve the functioning of the computer itself'" or "any other technology or technical field." MPEP § 2106.05(a).

Although Claim 1 additionally recites various computing elements, Appellants present no persuasive evidence that practicing the claim results in an improvement to the functioning of the computer or any other technology. In particular, Claim 1 is silent regarding specific limitations describing an improved machine, apparatus, computer, hardware processor, interface, memory, non-transitory machine readable storage medium, network, database, Internet, etc.

Contrary to Appellants' assertions, Claim 1 does not recite a "'technological improvement' over existing interfacing systems for electronic commerce systems" or "solve a problem specifically arising in the realm of computers to . . . improve the functioning of the computer system itself." Rather, the focus of the claims is on a process for disambiguating ambiguous user input based on user purchase behavior in order to select and order an item for a user—a process that may use computing elements (e.g., an interface), as tools, but does not improve the computer or interface itself as a tool. *See Elec. Power Grp.*, 830 F.3d at 1354. Appellants assert their invention improves interfacing with electronic commerce systems via voice commands, but neither the claims nor the Specification supports this assertion. First, Claim 1 does not even recite an interface. Moreover, we find no evidence that the recited computing device, electronic commerce system, or interactions there between (e.g. transmission of a voice command) are unconventional or non-generic. The Specification discloses a networked computing environment including an electronic commerce system including a voice command application, computing device, data

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store, memory, network, client, user interface, application program interface, and local interface. Spec. ¶¶ 6, 19, 20, 36, 47, 49, 54, 59, 64, *see also* Figs. 1, 4 (showing generic computer system with generic computing elements). But these disclosures do not show any improvement over existing interfacing or computing technologies. Thus, Appellants do not persuade us that their claimed or disclosed invention describes any technical advance, improvement or specialized computer components that require any unconventional or non-generic functionality.

<div align="center">MPEP § 2106.05(b) Particular Machine.</div>

At the outset, we note that the *Bilski* machine-or-transformation test is only applicable to the method (process) claims on appeal (Claim 14). This section of the MPEP guides: "When determining whether a claim recites significantly more than a judicial exception, examiners should consider whether the judicial exception is applied with, or by use of, a particular machine." MPEP § 2106.05(b); *see also Bilski*, 561 U.S. at 604 ("[T]he machine-or-transformation test is a useful and important clue, an investigative tool" for determining whether a claim is patent-eligible under 35 U.S.C. § 101.).

MPEP § 2106.05(b) provides further guidance regarding what constitutes a particular machine:

> [A]s described in **MPEP § 2106.05(f)**, additional elements that invoke computers or other machinery merely as a tool to perform an existing process will generally not amount to significantly more than a judicial exception. *See, e.g.*, *Versata Development Group v. SAP America*, 793 F.3d 1306, 1335 . . . (Fed. Cir. 2015) ([E]xplaining that in order for a machine to add significantly more, it must "play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be

<div align="center">20</div>

achieved more quickly.").

Although Claims 14–20 are method claims that recite "a computing device" and "an electronic commerce system," Appellants do not persuade us—nor do we find evidence in either the claims or Specification— that these claim elements are directed to a *particular* machine that performs non-generic functions. Thus, because the claims are not directed to a particular machine and merely implements an abstract idea using generic computer components, it fails to satisfy the "tied to a particular machine" prong of the *Bilski* machine-or-transformation test. *See Alice*, 573 U.S. at 223; *Bascom*, 827 F.3d at 1348.

MPEP § 2106.05(c) Particular Transformation.

This section of the MPEP guides: "Another consideration when determining whether a claim recites significantly more is whether the claim effects a transformation or reduction of a particular article to a different state or thing." "Transformation and reduction of an article 'to a different state or thing' is the clue to patentability of a process claim that does not include particular machines." *Bilski*, 561 U.S. at 658 (quoting *Benson*, 409 U.S. at 70).

Claim 1 recites a series of operations for disambiguating ambiguous user input based on user purchase behavior in order to select and order an item for a user, including obtaining a voice command; identifying an ambiguous term; disambiguating the ambiguous term by: determining if the ambiguous term corresponds to a purchased item and, if so, selecting that item, and, if not, selecting an item based on user purchase behavior; and generating an order including the selected item. These data operations are not a transformation or reduction of an article into a different state or thing

constituting patent-eligible subject matter. "The mere manipulation or reorganization of data . . . does not satisfy the transformation prong." *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011). Applying this guidance here, we determine Claim 1 fails to satisfy the transformation prong of the *Bilski* machine-or-transformation test.

MPEP § 2106.05(e) Other Meaningful Limitations &
MPEP § 2106.05(h) Field of Use and Technological Environment.

The MPEP guides:

> For a claim that is directed to a judicial exception to be patent-eligible, it must include additional features to ensure that the claim describes a process or product that applies the exception in a meaningful way, such that it is more than a drafting effort designed to monopolize the exception. The claim should add meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment to transform the judicial exception into patent-eligible subject matter.

MPEP § 2106.05(e). Further, the Supreme Court has stated that, even if a claim does not wholly preempt an abstract idea, it still will not be limited meaningfully if it contains only insignificant or token pre- or post-solution activity—such as identifying a relevant audience, a category of use, field of use, or technological environment. *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1346 (Fed. Cir. 2013); *see also* MPEP § 2106.05(h).

We determine Claim 1 does not add meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment. Any additional limitation of Claim 1 is nothing more than generic components performing generic functions, which does not amount to significantly more than an abstract idea.

Further, even though Claim 1 features voice command functionality within a networked computing system including an electronic commerce system that relates to user purchasing behavior and activity, such recitations do no more than generally link the use of a judicial exception to a particular field of use or technological environment. *See* Rev. Guid., 84 Fed. Reg. at 55.

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

"[T]ransformation into a patent-eligible application requires more than simply stat[ing] the [abstract idea] while adding the words 'apply it.'" *Alice*, 573 U.S. at 221 (internal quotation marks omitted, alterations in original); *see* MPEP § 2106.05(f). Because we find no evidence that Claim 1 solves an existing technological problem, and the claimed computing elements are no more than generic components being used in their ordinary capacity, we determine the additional elements of Claim 1 do not amount to more than a recitation of the words "apply it" and are no more than mere instructions to implement an abstract idea on a computer. *See, e.g.*, *In re TLI Commc'ns LLC v. AV Auto. LLC*, 823 F.3d 607, 615 (Fed. Cir. 2016) (concluding that claims reciting the abstract idea of "classifying and storing . . . images in an organized manner" were directed to patent-ineligible subject matter because they did no more than "generically spell out what it means to 'apply [the recited abstract idea] on a telephone network'" such that "the recited physical components behave[d] exactly as expected according to their ordinary use").

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

Claim 1's "obtain[ing]," "selecting," and "generating" of various information reflect the types of extra-solution activity (i.e., in addition to the

judicial exception) the courts have determined insufficient to transform judicially excepted subject matter into a patent-eligible application. *See* MPEP § 2106.05(g); 84 Fed. Reg. at 55, 55 n.31; *see also Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 771 F. Supp. 2d 1054, 1066 (E.D. Mo. 2011), *aff'd*, 687 F.3d at 1266 (explaining that "storing, retrieving, and providing data … are inconsequential data gathering and insignificant post solution activity"); *Elec. Power Grp.*, 830 F.3d at 1355 (explaining that "selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes").

In view of the foregoing, we determine Claim 1 does not recite additional elements that integrate the judicial exception into a practical application and, thus, is "directed to" a judicial exception, namely an abstract idea.

C.   Well-understood, routine, conventional; specified at a high level of generality

Because Claim 1 recites a judicial exception and does not integrate that exception into a practical application, we must then reach the issue of whether the claim adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field. Rev. Guid., 84 Fed. Reg. at 56. It is indicative of the absence of an inventive concept where the claim simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *Id.*

The Examiner determines that the claims' additional computing elements do not amount to significantly more than an abstract idea and are

"routine, conventional and well understood." Non-Final Act. 4; *see also*
Final Act. 15–16. To support this determination, the Examiner cites specific
paragraphs from Appellants' Specification. *See* Non-Final Act. 3–4 (citing
Figs. 1, 4; Spec. ¶ 11).

We agree with the Examiner that the cited disclosures—which
describe Appellants' invention in a manner that requires no more than a
general-purpose computing system with generic computing elements
performing generic computer functions—provide sufficient evidence to
show that the additional elements and functions of Claim 1 are
"well-understood, routine, and conventional." *See also, e.g.*, Spec. ¶ 65
("the voice command application 117, and other various systems described
herein may be embodied in software or code executed by general purpose
hardware . . . or . . . technologies . . . generally well known by those skilled
in the art").

Thus, we disagree with Appellants' assertion that the claims recite an
inventive concept analogous to the claims identified as patent-eligible in
Bascom and *Amdocs*. App. Br. 17–19. In *Bascom*, even though the court
determined the claims recited the abstract concept of "filtering content," it
concluded that the claims recited an inventive concept in the ordered
combination of system components, including a local client computer and a
remote ISP server connected to the client computer and Internet, providing
for "the installation of a filtering tool at a specific location, remote from the
end-users, with customizable filtering features specific to each end user"
(*Bascom*, 827 F.3d at 1350). *See id.* at 1348–50. The claims in *Amdocs*
"entail[ed] an unconventional technological solution (enhancing data in a
distributed fashion) to a technological problem (massive record flows which

previously required massive databases)." *Amdocs*, 841 F.3d at 1300. More specifically, the claims were "tied to a specific structure of various components (network devices, gatherers, ISMs, a central event manager, a central database, a user interface server, and terminals or clients)" such that the components were "purposefully arrange[d] . . . in a distributed architecture to achieve a technological solution to a technological problem specific to computer networks." *Id.* at 1301. By contrast, Claim 1 does not recite an inventive concept, but instead merely uses generic computing elements for performing generic functions that disambiguate ambiguous user input based on user purchase behavior in order to select and order an item for a user.

Therefore, we determine that Claims 1–20, viewing their limitations "both individually and as an ordered combination," do not recite significantly more than the judicial exception to transform the claim into patent-eligible subject matter. *See Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79).

In the Reply Brief, Appellants further assert that the claims recite patent-eligible subject matter because they are novel and non-obvious, as evidenced by the Examiner's withdrawal of the rejection under 35 U.S.C. § 103. Reply Br. 21 (citing Ans. 3). But "'novelty' . . . is of no relevance in determining . . . patentable subject matter."[12] *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1315 (Fed. Cir. 2016) (emphasis omitted)

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[12] *See also Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) ("The search for a § 101 inventive concept is . . . distinct from demonstrating § 102 novelty."); *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017) ("[e]ligibility and novelty are separate inquiries").

(quoting *Diehr*, 450 U.S. at 188–89). In other words, the mere fact that a claimed method includes certain novel or nonobvious steps does not automatically render the claim non-abstract. *See, e.g.*, *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (determining for a specific method of advertising and content distribution, that "each of [the] eleven steps merely instructs the practitioner to implement the abstract idea with routine, conventional activities," and that although "some of the eleven steps were not previously employed in this art," that was "not enough—standing alone—to confer patent eligibility upon the claims at issue." (internal quotation marks and brackets omitted); *accord Netflix, Inc. v. Rovi Corp.*, 114 F. Supp. 3d 927, 942 (N.D. Cal. 2015), *aff'd*, 670 F. App'x 704 (Fed. Cir. 2016).

In view of the foregoing, we sustain the rejection of Claims 1–20 under 35 U.S.C. § 101.

DECISION

The rejection of Claims 1–20 under 35 U.S.C. § 101 is AFFIRMED.

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).

CONCLUSION

In summary:

Claims Rejected	Basis	Affirmed	Reversed
1–20	35 U.S.C. § 101	1–20	

AFFIRMED