UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte PAUL HUGH WILKIE BISHOP,
AHMAD NASER ABDELRAHMAN, GLENN DEXTER SWANSON,
DEEPANKAR DEY, and TODD SPRAGGINS

_____

Appeal 2017-010414
Application 13/936,588
Technology Center 3600

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Before ERIC S. FRAHM, JOHN A. EVANS, and JASON M. REPKO,
Administrative Patent Judges.

EVANS, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants[1] seek our review under 35 U.S.C. § 134(a) of the
Examiner's Final rejection of Claims 1–20. Appeal Br. 4. We have
jurisdiction under 35 U.S.C. § 6(b).

　　We REVERSE.[2]

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[1] Appellants identify the real party in interest as Oracle International
Corporation. Appeal Br. 3.

[2] Rather than reiterate the arguments of Appellants and the Examiner, we
refer to the Appeal Brief (filed May 12, 2017, "Appeal Br."), the Reply Brief

STATEMENT OF THE CASE

The claims relate to a system that uses metadata to provide a technical catalogue. *See* Abstract.

INVENTION

Claims 1, 11, and 16 are independent. An understanding of the invention can be derived from a reading of Claim 1, which is reproduced below with some formatting added:

> 1. A non-transitory computer-readable medium having instructions stored thereon that, when executed by a processor, cause the processor to optimize a technical catalog, the optimizing comprising:
>
>> defining one or more items comprising metadata associated with a fulfillment solution, wherein each item is used by the fulfillment solution;
>>
>> selecting a process logic at runtime from a set of selectable process logic;
>>
>> generating a transformation sequence using the selected process logic;
>>
>> generating dynamically a runtime process flow comprising a customized output based on the transformation sequence and the metadata, wherein the transformation sequence is customized based on the metadata; and
>>
>> storing the one or more items within the technical catalog, wherein the technical catalog comprises a data store that stores metadata, and wherein the technical catalog defines a structure of the one or more items;

(filed August 1, 2017, "Reply Br."), the Examiner's Answer (mailed July 12, 20176, "Ans."), the Final Action (mailed December 14, 2016, "Final Act."), and the Specification (filed July 8, 2013, "Spec.") for their respective details.

> wherein the runtime process flow further
> comprises selecting the fulfillment solution to use at least
> one item of the one or more items and generate the
> fulfillment solution using the at least one item.

References and Rejections

Christofort et al. "Christofort"	US 2002/0129016 A1	Sept. 12, 2002
Maes	US 2009/0193433 A1	July 30, 2009
Abdelrahman et al. "Abdelrahman"	US 2014-0012708 A1	Jan. 9, 2014

1. Claims 1–20 stand provisionally rejected under the judicial ground of non-statutory double patenting. Final Act. 11.

2. Claims 1–20 stand rejected under 35 USC § 101 as directed to non-statutory subject matter. Final Act. 2–9, and 12.

3. Claims 1–20 stand rejected under pre-AIA 35 USC § 103(a) as unpatentable over Maes and Christofort. Final Act. 13–23.

ANALYSIS

We have reviewed the rejections of Claims 1–20 in light of Appellants' arguments that the Examiner erred. We consider Appellants' arguments as they are presented in the Appeal Brief, pages 5–28.

CLAIMS 1–20: PROVISIONAL OBVIOUSNESS-TYPE DOUBLE PATENTING.

Claims 1–20 stand provisionally rejected on the ground of nonstatutory double patenting over claims 1–20 of co-pending Application No. 13/936,584 to Abdelrahman. Final Act. 11. We decline to reach the merits. As of this writing, the co-pending application has not issued as a

patent and therefore, the issue is not ripe for adjudication. *See Ex parte Moncla*, Appeal 2009-006448 slip op. at 3 (BPAI June 22, 2010) (precedential) (Where the co-pending, reference application has not issued, it is "premature for the original Board panel to address the Examiner's provisional rejection of the claims.").

CLAIMS 1–20: INELIGIBLE SUBJECT MATTER

Appellants argue all claims as a group in view of the limitations of Claim 11. Appeal Br. 7. Therefore, we decide the appeal of the 35 U.S.C. § 101 rejections with reference to claim 11, and 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).

Preemption

Appellants contend the claims do not preempt an abstract idea. App. Br. 18 ("The ultimate inquiry is whether the claim preempts an abstract idea.").

While preemption may denote patent ineligibility, its absence does not demonstrate patent eligibility. *See FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016). For claims covering a patent-ineligible concept, preemption concerns "are fully addressed and made moot" by an analysis under the *Mayo/Alice* framework. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). We conduct such an analysis below.

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.[3] However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (citing *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court's two-step framework, described in *Mayo* and *Alice*. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217–18 (2014) (citing *Mayo*, 566 U.S. at 75–77). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.,* the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible,

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[3] 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.

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, 69 (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. (15 How.) 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, 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.* at 191 (citing *Benson* and *Flook*), 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

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

B.   USPTO Revised Guidance[4]

The PTO recently published revised guidance in the Federal Register concerning the application of § 101.

Under the Revised Guidance, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain

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groupings of abstract ideas (i.e., mathematical concepts,
certain methods of organizing human activity such as a
fundamental economic practice, or mental processes);[5] and

(2) additional elements that integrate the judicial
exception into a practical application (see Manual for
Patent Examining Procedure ("MPEP") §§ 2106.05(a)–(c),
(e)–(h)).[6]

Only if a claim (1) recites a judicial exception and (2) does not

integrate that exception into a practical application, do we then look to

whether the claim:

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

(4) simply appends well-understood, routine,
conventional activities previously known to the industry,
specified at a high level of generality, to the judicial
exception.[7]

See Revised Guidance.

Step 2A(i) — Abstract Idea

Informed by our judicial precedent, the Revised Guidance extracts and

synthesizes key concepts identified by the courts as abstract ideas to explain

that the abstract idea exception includes the following groupings of subject

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

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

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

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).

Under the Revised Guidance, if the claim does not recite a judicial exception (a law of nature, natural phenomenon, or subject matter within the enumerated groupings of abstract ideas above), then the claim is patent-eligible at *Step 2A(i)*. This determination concludes the eligibility analysis, except in rare situations identified in the Revised Guidance.[8]

However, if the claim recites a judicial exception (i.e., an abstract idea enumerated above, a law of nature, or a natural phenomenon), the claim

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

requires further analysis for a practical application of the judicial exception in *Step 2A(ii)*.

Step 2A(ii) — Practical Application

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

The seven identified "practical application" sections of the MPEP,[9] 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

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

Environment

If the recited judicial exception is integrated into a practical application as determined under one or more of the MPEP sections cited above, then the claim is not directed to the judicial exception, and the patent-eligibility inquiry ends. If not, then analysis proceeds to *Step 2B*.

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

Under our precedent, it is possible that a claim that does not "integrate" a recited judicial exception under *Step 2A(ii)* is nonetheless patent eligible. For example, the claim may recite additional elements that render the claim patent eligible even though a judicial exception is recited in a separate claim element.[10] The Federal Circuit has held claims eligible at the second step of the *Alice/Mayo* test (USPTO *Step 2B*) because the additional elements recited in the claims provided "significantly more" than the recited judicial exception (e.g., because the additional elements were unconventional in combination).[11] Therefore, if a claim has been determined to be directed to a judicial exception under *Revised Step 2A*, we must evaluate the additional elements individually and in combination under *Step 2B* to determine whether they provide an inventive concept (i.e., whether the additional elements amount to significantly more than the exception itself).[12]

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

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

[12] The patent eligibility inquiry may contain underlying issues of fact. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325.

Under the Revised Guidance, we must consider in *Step 2B* whether an additional element or combination of elements: (1) "Adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present;" or (2) "simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present." *See* Revised Guidance, III.B.[13]

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

(Fed. Cir. 2016). In particular, "[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

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

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)

See Berkheimer Memo.

The analysis in *Step 2B* further determines whether an additional element or combination of elements:

> (a) 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

> (b) 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.

Revised Guidance, *and see Berkheimer* Memo.

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 does not amount to significantly more than the exception itself, the claim is ineligible under *Step 2B*, and the claim should be rejected for lack of subject matter eligibility.

ANALYSIS

Step 1

Claim 1 is a method (process) claim by reciting one of the enumerated categories of eligible subject matter in 35 U.S.C. § 101.[14] Therefore, the issue before us is whether it is directed to a judicial exception without significantly more.

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

The Examiner determined the claimed method is "directed to an abstract idea, namely-designing a fulfillment solution utilizing a technical catalog." Final Act. 3. The Examiner finds "[d]esigning a fulfillment solution utilizing a technical catalog is an abstract idea of itself having no concrete or tangible form." *Id.* Moreover, the Examiner finds the claims amount to a customer and a provider entering into a specified agreement to perform certain services, which is a contractual relationship, a concept that was held to be an abstract idea. *Id.* (citing *buySAFE, Inc. v. Google, Inc.,*

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[14] Claim 1 may appear to be an article of manufacture claim by virtue of reciting a "non-transitory computer-readable medium having instructions stored thereon" in the preamble. However, we find Claim 1 to be a method claim because the stored instruction cause a computer to execute the steps of the method set forth in the body of the claim.

(Fed. Cir. 2014). The Examiner additionally finds the recited claim elements represent functions performable by a human and that performance of a series of steps that people, aware of each step, can and regularly do perform is not patent-eligible under 35 U.S.C. § 101. *Id.* (citing *Smartgene Inc., v. Advanced Biological Labs., SA,* 555 F. App'x. 950 (Fed. Circ. 2014) and *Cybersource Corp. v. Retail Decisions, Inc.,* 654 F.3d 1366 (Fed. Circ. 2011)).

In contrast to the Examiner's finding that the claims are directed to the abstract idea of "designing a fulfillment solution utilizing a technical catalog," Appellants contend the claims are directed to a specific fulfillment solution that uses metadata and a transformation sequence to dynamically generate a runtime process. App. Br. 5. Moreover, appellants argue the transformation sequence is customized based on the metadata. *Id.*

We review the claims, *de novo,* to determine whether they comply with 101. "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 Common,* 601 F.3d 1319, 1331 (Fed. Cir. 2010).

Claim 1 recites a "non-transitory computer-readable medium having instructions stored thereon that, when executed by a processor, cause the processor to optimize a technical catalog, the optimizing comprising:

Claim 1	Revised Guidance p. 52
[a][15] defining one or more items comprising metadata associated with a fulfillment solution, wherein	(c) Mental processes—concepts performed in the human mind (including an observation,

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[15] Step designators, e.g., "[a]" were added to facilitate discussion.

each item is used by the fulfillment solution;	evaluation, judgment, opinion).
[b] selecting a process logic at runtime from a set of selectable process logic;	"Runtime" recitation ties method to a machine.
[c] generating a transformation sequence using the selected process logic;	(c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).
[d] generating dynamically a runtime process flow comprising a customized output based on the transformation sequence and the metadata, wherein the transformation sequence is customized based on the metadata; and	"Runtime" recitation ties method to a machine.
[e] storing the one or more items within the technical catalog, wherein the technical catalog comprises a data store that stores metadata, and wherein the technical catalog defines a structure of the one or more items;	Flook, 437 U.S. at 590 (step of adjusting an alarm limit based on the output of a mathematical formula was "postsolution activity" and did not render method patent eligible).
[f] wherein the runtime process flow further comprises selecting the fulfillment solution to use at least one item of the one or more items and generate the fulfillment solution using the at least one item.	"Runtime" recitation ties method to a machine.

Thus, under Step 2A(i), we find limitations [a] and [c] recite steps which the Revised Guidance categorizes within the "mental processes" grouping of abstract ideas.

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

If the claims are directed to a patent-ineligible concept, as we conclude above, we proceed to the "practical application" *Step 2A(ii)* in which we determine whether the recited judicial exception is integrated into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application. The Revised Guidance is "designed to more accurately and consistently identify claims that recite a practical application of a judicial exception [] and thus are not 'directed to' a judicial exception." Revised Guidance, 53.

For the reasons which follow, we conclude that Appellants' claims in fact do integrate the judicial exception into a practical application.

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

"In determining patent eligibility, examiners 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).

With respect to technological improvements, Appellants contend:

> Similarly [to *Enfish*], the claimed embodiments improve the
> functioning of a computer. For example, as previously

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explained, the claims recite using metadata and a
transformation sequence to modify and customize an output
solution, which results in avoiding the need to "add entirely
new solution stacks to address new domains."

App. Br 14 (citing Spec., ¶ 4).

The Examiner finds the disclosure upon which Applicant relies:
"'add[ing] entirely new solution stacks to address new domains' is only
recited once in the background section of the [S]pecification[], there is no
further disclosure as to how the invention accomplishes this or what the
process of adding 'new solution stacks' actually entails." Ans. 9.

The Answer mischaracterizes the Specification. Appellants disclose:

> Thus, in one embodiment, a service design and order fulfillment
> system can utilize one or more adaptable provider functions,
> where the one or more provider functions can serve as
> components of an overall fulfillment solution. Thus, rather than
> continually refactoring code to support more product offerings,
> services, technologies, and devices, core functionality can be
> provided out-of-the-box and adapted to variant requirements
> through a simple and reliable process of defining fulfillment
> patterns. Additional variants can be accommodated by reusing
> existing patterns or by adding new patterns. This can eliminate
> service design complexity, can eliminate a need to build
> different "stacks" for different services/technologies, and can
> localize the impact of any change to an implementation of one
> or more provider function fulfillment patterns.

Spec., ¶ 277. Thus, we find the Specification discloses a method whereby
the claims provide an improvement to an order fulfillment technology.

Appellants characterize their claims as improving the functioning of
the computer: "the claims recite using metadata and a transformation
sequence to modify and customize an output solution, which results in

avoiding the need to 'add entirely new solution stacks to address new domains.'" Reply Br. 7 (citing Spec. ¶ 4). Alternatively, Appellants characterize the claims as improving order fulfillment technology. *Id.* (citing Spec. ¶¶ 5–6) ("The present application solves these technical issues whereby instead of generating an entire new software application it 'defines a technical catalog that includes items including metadata used by a fulfillment solution' where 'service design is about populating a technical catalog with entities and metadata used to enable service order fulfillment.'"). The claims recite a practical application where an additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field.[16]

Although limitations [a], [c], and [f] recite mental process abstract ideas, the "runtime" limitations [b] and [d] tie the process to a machine and, we find, the method as a whole improves a technological process. Therefore, we find the claims are not "directed to" an abstract idea and recite eligible subject matter under § 101.

CLAIMS 1–20: OBVIOUSNESS OVER MAES AND CHRISTFORT.

Appellants contend the Examiner's Answer presents a new rationale of rejection using Christfort. Reply Br. 10. Appellants argue that in the previous Office Actions the Examiner equated Christfort's "middleware

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[16] The Revised Guidance also finds integration into a practical application where the judicial exception is used in medical treatment or to transform an article to a different state. Revised Guidance, 55. Such considerations are not before us.

transformer 112" with the claimed "generating a transformation sequence," but the Answer equates Christfort's "middleware transformer 112" with the claimed "dynamically generated runtime process flow." *Id.*, 10–11 (citing Ans. 13.). We agree with Appellants. However, Appellants have chosen to maintain the Appeal. We, therefore, determine the merits of Appellant's response to the Answer.[17]

Generating dynamically a runtime process flow.

The Examiner finds Maes generally teaches the claimed invention, except Maes fails to teach, *inter alia*, "generating dynamically a runtime process flow comprising a customized output based on the transformation sequence and the metadata, wherein the transformation sequence is customized based on the metadata" Final Act. 14.

The Examiner equates the claimed "transformation sequence" to the "generated generic output" of Christfort, and equates the claimed "dynamically generated runtime process flow" to the "middleware transformer" of Christfort. Ans. 13. The Examiner finds the claimed "selecting a process logic at runtime from a set of selectable process logic," is taught by Christfort. The Examiner finds: "The user selects an

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[17] An Examiner may make a new ground of rejection on appeal which designation triggers procedural options for the appellant. One such option is simply maintaining the appeal. The Director of the United States Patent and Trademark Office, not the Board, supervises examination and examiners. If an examiner has procedurally erred, the remedy lies exclusively in petitioning the Director for supervisory review. The Director has not delegated this supervisory authority to the board. Because Appellants have maintained the appeal, we are obliged to decide the appeal on the record before us.

application, such as a map service provider. For example, the client, or end user, may be a mobile phone that is requesting driving directions from a map service provider disclosure." Ans. 13. (citing Christfort, ¶ 70).[18]

Appellants contend Christfort's "middleware transformer" does not select an application, as found by the Examiner. Reply Br. 11. Rather, Appellants argue Christfort discloses the middleware transformer selects a particular output variation. *Id.* (quoting Christfort, ¶ 70) ("[T]he application developer designed the application to produce generic output that includes several output variations. . . . [M]iddleware transformer 112 then selects a particular output variation or option based on the parameters or conditions of the service request."). We agree with Appellants.

Christfort discloses: "the application developer designs the application to produce generic output that includes several output variations . . . for presenting or displaying the output on the client device." Christfort, ¶ 70. Christfort further discloses: the "[m]iddleware transformer 112 then selects a particular output variation or option based on the parameters or conditions of the service request." *Id.* Thus, the middleware transformer does not select an application, as found by the Examiner. Rather, the middleware transformer selects from among the output of an application.

The Examiner finds: "[t]he user selects an application, such as a map service provider. Ans. 13. (citing Christfort, ¶ 71) ("For example, the client, or end user, may be a mobile phone that is requesting driving directions

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[18] This disclosure should be Christfort, ¶ 71.

from a map service provider disclosure."). Appellants contend the Examiner's findings mischaracterize the disclosure of Christfort. We agree.

Christfort discloses a user does not select an application, but rather may request driving directions from a map service provider. Christfort, ¶ 71 ("For example, the client, or end user, may be a mobile phone that is requesting driving directions from a map service provider."). Christfort discloses the generic output of the "application used by the map service provider" may include several variations of the requested directions. *See* Christfort, ¶ 72. Christfort discloses that where the phone used to send the request lacks graphic capabilities, "[m]iddleware transformer 112 then selects the output segment[19] with text only from the generic output and generates customized output that contains the text only segment." *Id.* Contrary to the Examiner's finding, neither the user, nor the user's mobile phone, selects an application.

DECISION

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

The rejection of Claims 1–20 under 35 U.S.C. § 103 is reversed.

<u>REVERSED</u>

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[19] An "output variation" is referred to as an "output segment." *See* Christfort, ¶ 70.