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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/949,850	07/24/2013	Anindeep Kar	0076412-000152	5029

21839   7590   09/27/2019
BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER
ROBINSON, KITO R

ART UNIT	PAPER NUMBER
3695	

NOTIFICATION DATE	DELIVERY MODE
09/27/2019	ELECTRONIC

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

Ex parte ANINDEEP KAR, SURYA D. BHATTACHARYYA,
KRISTOFER PEREZ and GREGORY WILLIAMSON
_____

Appeal 2018-006844
Application 13/949,850
Technology Center 3600
_____

Before ST. JOHN COURTENAY III, LARRY HUME, and
PHILLIP A. BENNETT, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants[1] appeal under 35 U.S.C. § 134(a) from the Examiner's
Final Rejection of claims 1–22, which constitute all the claims pending in
this application. We have jurisdiction over the pending claims under
35 U.S.C. § 6(b).

We affirm.

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[1] According to Appellants, the real party in interest is Mastercard
International, Inc. App. Br. 2.

STATEMENT OF THE CASE[2]

Disclosed embodiments of Appellants' invention relate to "the authentication of payment transactions, specifically authenticating transactions based on geolocation of a mobile device and additional authentication data received from a cardholder." Spec. ¶ 1.

Illustrative Claim

1.   A method for authenticating a user in a payment transaction using a computing device, comprising:

storing, in a database of a processing server, a plurality of location data entries, wherein each location data entry includes data related to the location of a mobile device including (i) a geographic location of the related mobile device and (ii) at least one of a time and date at which the corresponding geographic location was identified;

receiving, by a receiving device of the processing server, an authorization request for a payment transaction, from a merchant, wherein the authorization request includes at least an account identifier, a location identifier, and at least one of an authorization time and date;

identifying, in the database of the processing server, a specific location data entry where the at least one of a time and date included in the specific location data entry is within a predetermined period of time of the at least one of the authorization time and date included in the received authorization request;

when the geographic location included in the specific location data entry is indicative of the mobile device being not present at a point-of-sale corresponding to the location identifier,

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[2] We herein refer to the Final Office Action, mailed September 1, 2017 ("Final Act."); Appeal Brief, filed Jan. 26, 2018 ("App. Br."); Examiner's Answer, mailed April 19, 2018 ("Ans."); and the Reply Brief, filed June 19, 2018 ("Reply Br.").

transmitting, by a transmitting device of the processing server, a request to a computing device associated with the account identifier for action by a user of the computing device to prove an identity of the user;

receiving, by the receiving device of the processing server, data conveying the action taken by the user of the computing device to prove the identity of the user;

authenticating, by a processing device of the processing server, the user based on the received data conveying the action taken by the user to prove the identity of the user and authentication information associated with a payment account corresponding to the account identifier; and

upon authenticating the user, transmitting, by the transmitting device of the processing server, the authorization request to an issuer associated with the payment account for authorization of the financial transaction.

App. Br. 29–30. Claims Appendix (Emphasis added regarding limitations disputed under 35 U.S.C. § 103).

Rejections

A. Claims 1–22 are rejected under 35 U.S.C. § 101 as being directed to a judicial exception, without significantly more. Final Act. 8.

B. Claims 1–5, 9, 10, 12–16, and 20–22 are rejected under 35 U.S.C. § 103 as being obvious over the combined teachings and suggestions of Delia et al. (US 2010/0153451 A1; pub. June 17, 2010 ("Delia")) and Kirkland et al. (US 2004/0254868 A1; pub. Dec. 16, 2004; ("Kirkland")). Final Act. 10. [3]

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[3] Although dependent claim 11 was included in the list of rejected claims 1–22 in the Final Office Action Summary page, we find no detailed statement of rejection to review under 35 U.S.C. § 103 for claim 11 in the Final Action, mailed Sept. 1, 2017. Nor does the Examiner indicate in the record that claim 11 is allowable or "objected to." Therefore, the status of a possible rejection under 35 U.S.C. § 103 for claim 11 is unclear on appeal.

C. Claims 6 and 17 are rejected under 35 U.S.C. § 103 as being obvious over the combined teachings and suggestions of Delia, Kirkland, and Vasudevan et al. (US 2013/0227431 A1, pub. Aug. 29, 2013 ("Vasudevan"). Final Act. 15.

D. Claims 7, 8, 18, and 19 are rejected under 35 U.S.C. § 103 as being obvious over the combined teachings and suggestions of Delia, Kirkland, and Liu et al. (US 2014/0344155 A1, pub. Nov. 20, 2014 ("Liu"). Final Act. 15.

Issues on Appeal

1. Did the Examiner err in rejecting claims 1–22 under 35 U.S.C. § 101 as being directed to a judicial exception, without significantly more?
2. Did the Examiner err in rejecting claims 1–10 and 12–22 under 35 U.S.C. § 103 as being obvious over the cited combinations of prior art?

ANALYSIS

We have reviewed Appellants' arguments in the Briefs, the Examiner's rejections, and the Examiner's responses to Appellants' arguments. For at least the reasons discussed below, we are not persuaded the Examiner erred. In our analysis below, we highlight and address specific findings and arguments for emphasis.

Accordingly, the Board has no adverse decision under 35 U.S.C. § 103 establishing a prima facie case under 35 U.S.C. § 132(a) to review, and therefore we have *no jurisdiction* under 35 U.S.C. § 6(b) as to claim 11 regarding a possible rejection under 35 U.S.C. § 103. Accordingly, claim 11 is not before us on appeal regarding any rejection under 35 U.S.C. §103. We do, however, include claim 11 under our analysis of the Examiner's rejection under 35 U.S.C. § 101.

Principles of Law — 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. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "'[L]aws of nature, natural phenomena, and abstract ideas' are not patentable." *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quoting *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. Pty. Ltd. 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." (emphasis omitted)); *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, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding of rubber products" (*Diehr*, 450 U.S. at 193); "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 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 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* 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 (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.* (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.*

Subject Matter Eligibility — 2019 Revised Guidance

The USPTO recently published revised guidance on the application of
35 U.S.C. § 101. *See* 2019 Revised Patent Subject Matter Eligibility
Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance"). *This
new guidance is applied in this Opinion.* Under the 2019 Revised Guidance,
we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings
> of abstract ideas (i.e., mathematical concepts, mental processes,
> or certain methods of organizing human activity such as a
> fundamental economic practice or managing personal behavior
> or relationships or interactions between people);[4] and
> (2) additional elements that integrate the judicial
> exception into a practical application (*see* Manual of Patent
> Examining Procedure ("MPEP") §§ 2106.05(a)–(c), (e)–(h)).[5, 6]

See 2019 Revised Guidance, 84 Fed. Reg. at 51–52, 55.

A claim that integrates a judicial exception into a practical application
applies, relies on, or uses 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. *See* 2019
Revised Guidance, 84 Fed. Reg. at 54. When the judicial exception is so

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

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

[6] All references to the MPEP are to the Ninth Edition, Revision 08.2017
(rev. Jan. 2018).

integrated, then the claim is not directed to a judicial exception and is patent

eligible under 35 U.S.C. § 101. *Id.*

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

integrate that exception into a practical application, do we then evaluate

whether the claim provides an inventive concept. *See* 2019 Revised

Guidance, 84 Fed. Reg. at 56; *Alice*, 573 U.S. at 217–18.

For example, we look to whether the claim:

> (3) adds a specific limitation beyond the judicial
> exception that is not "well-understood, routine, conventional"
> in the field (*see* MPEP § 2106.05(d)); **or**
> (4) simply appends well-understood, routine, and
> conventional activities previously known to the industry,
> specified at a high level of generality, to the judicial exception.[7]

See 2019 Revised Guidance, 84 Fed. Reg. at 56.

Because there is no single definition of an "abstract idea" under *Alice*

step 1, the PTO has recently synthesized, for purposes of clarity,

predictability, and consistency, key concepts identified by the courts as

abstract ideas to explain that the "abstract idea" exception includes the

following three groupings:

1. Mathematical concepts—mathematical relationships,
   mathematical formulas or equations, mathematical
   calculations;
2. Mental processes— concepts performed in the human mind
   (including an observation, evaluation, judgment, opinion);
   and
3. Certain methods of organizing human activity—fundamental
   economic principles or practices (including hedging,
   insurance, mitigating risk); commercial or legal interactions

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[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*.

> (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).

See 2019 Revised Guidance, 84 Fed. Reg. at 52.

According to the 2019 Revised Guidance, "[c]laims that do not recite [subject] matter that falls within these enumerated groupings of abstract ideas should not be treated as reciting abstract ideas," except in rare circumstances. Even if the claims recite any one of these three groupings of abstract ideas, these claims are still not "directed to" a judicial exception (abstract idea), and thus are patent eligible, if "the claim as a whole integrates the recited judicial exception into a practical application of that exception." *See* 2019 Revised Guidance, 84 Fed. Reg. at 53.

For example, limitations that **are** indicative of *integration into a practical application* include:

1. Improvements to the functioning of a computer, or to any other technology or technical field — *see* MPEP § 2106.05(a);
2. Applying the judicial exception with, or by use of, a particular machine — *see* MPEP § 2106.05(b);
3. Effecting a transformation or reduction of a particular article to a different state or thing — *see* MPEP § 2106.05(c); and
4. Applying or using the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception — *see* MPEP § 2106.05(e).

In contrast, limitations that are **not** indicative of *integration into a practical application* include:

1. Adding the words "apply it" (or an equivalent) with the judicial exception, or merely include instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea — *see* MPEP § 2106.05(f);
2. Adding insignificant extra-solution activity to the judicial exception — *see* MPEP § 2106.05(g); and
3. Generally linking the use of the judicial exception to a particular technological environment or field of use — *see* MPEP 2106.05(h).

See 2019 Revised Guidance, 84 Fed. Reg. at 54–55 ("Prong Two").

2019 Revised Guidance, Step 2A, Prong One [8]
The Judicial Exception

Under the 2019 Revised Guidance, we begin our analysis by first considering whether the claims recite any judicial exceptions, including certain groupings of abstract ideas, in particular: (a) mathematical concepts, (b) mental steps, and (c) certain methods of organizing human activities.

In the table below, we identify in *italics* the specific claim limitations that we conclude recite an abstract idea. We additionally identify in **bold** the additional (non-abstract) claim limitations that are generic computer components:

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[8] Throughout this opinion, we give the claim limitations the broadest reasonable interpretation consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

TABLE 1

Independent Claim 1	Revised 2019 Guidance
[a] A method for authenticating a user in a payment transaction using a computing device comprising:	A process (method) is a statutory subject matter class. *See* 35 U.S.C. § 101 ("Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.").
[b] storing, in **a database of a processing server**, a plurality of location data entries . . . ;	Storing information is insignificant extra-solution activity. 2019 Revised Guidance; *see also* MPEP § 2106.05(g).
[c] *receiving*, by **a receiving device of the processing server**, an authorization request for a payment transaction . . . ;	Abstract idea, i.e., "receiving" a payment authorization request is a method of organizing human activity – commercial interactions. *See* 2019 Rev. Guid. 52.
[d] *identifying*, in the **database of the processing server**, a specific location data entry . . . ;	Abstract idea, i.e., "identifying" could be performed alternatively as a mental process. *See* 2019 Rev. Guid. 52.
[e] when the geographic location included in the specific location data entry is indicative of the mobile device being not present at a point-of-sale corresponding to	Abstract idea, i.e., "transmitting" a request to prove the identity of the user is a method of organizing human activity – commercial interactions. *See* 2019 Rev. Guid. 52.

Independent Claim 1	Revised 2019 Guidance
the location identifier, *transmitting*, **by a transmitting device of the processing server**, a request to **a computing device** associated with the account identifier for action by a user of the computing device to prove an identity of the user;	
[f] *receiving*, by **the receiving device of the processing server**, data conveying the action taken by the user of **the computing device** to prove the identity of the user;	Abstract idea, i.e., "receiving" data to prove the identity of the user is a method of organizing human activity – commercial interactions. *See* 2019 Rev. Guid. 52.
[g] *authenticating*, by **a processing device of the processing server**, the user based on the received data conveying the action taken by the user to prove the identity of the user and authentication information associated with a payment account corresponding to the account identifier;	Abstract idea, i.e., "authenticating" is a method of organizing human activity – commercial interactions. *See* 2019 Rev. Guid. 52.
[h] upon authenticating the user, transmitting, by the **transmitting device of the processing server**, the authorization request to an issuer associated with the payment account for authorization of the financial transaction.	Insignificant post-solution activity. *See* 2019 Revised Guidance; *see also* MPEP § 2106.05(g).

We conclude claim 1 recites an abstract idea, i.e., a method of organizing human activity, including fundamental economic principles or practices, specifically including *commercial interactions* such as sales

activities, e.g., authenticating payment transactions. *See* 2019 Revised
Guidance, 84 Fed. Reg. at 52.

Moreover, we conclude that all of the "storing," "receiving,"
"identifying," "authenticating" and "transmitting" steps of claim 1 recite
steps which collectively authenticate a user in a payment transaction
between the user and a merchant. *See* Claim 1. The intended purpose is the
prevention of unnecessary denials of authorization of a cardholder, in the
event the cardholder's mobile device is not physically present with the
cardholder at the transaction location, or in situations in which the
perpetrator of the fraud is in possession of the mobile device. *See e.g.,* Spec.
¶ 3.

Thus, we conclude the aforementioned limitations of claim 1 recite an
abstract idea — methods of organizing human activities, including
fundamental economic practices, specifically including the subcategories of
commercial interactions and sales activities. *See* 2019 Rev. Guidance 52.

The non-abstract additional limitations recited in claim 1 are the user
and the merchant (who are persons), and the additional limitations of generic
computer elements: "a database of a processing server," "a mobile device,"
"a receiving device of the processing server," "a transmitting device of the
processing server," and "a computing device." *See* 2019 Revised Guidance,
84 Fed. Reg. at 52.

We note remaining independent claim 12 also recites similar language
of commensurate scope that we conclude also falls into the abstract idea
category of organizing human activities, specifically including the
subcategories of sales activities and commercial interactions. *Id.*

Because we conclude all claims on appeal **recite an abstract idea**, as identified above, under *Step 2A, Prong One*, we proceed to *Step 2A, Prong Two.*

2019 Revised Guidance, Step 2A, Prong Two
Integration of the Judicial Exception into a Practical Application

Pursuant to the 2019 Revised Guidance, we consider whether there are additional elements set forth in the claims that integrate the judicial exception into a practical application. *See* 2019 Revised Guidance, 84 Fed. Reg. at 54–55. We have identified *supra* the additional non-abstract elements recited in independent claim 1 as the generic "database of a processing server," "mobile device," "receiving device of the processing server," "transmitting device of the processing server," and "computing device."

Under MPEP § 2106.05(a) ("Improvements to the Functioning of a Computer or to Any Other Technology or Technical Field"), Appellants contend the claims provide a technological improvement over the prior art, similar to that found by the court in *McRO*. *See* App. Br. 9.

We find Appellants' arguments based upon *McRO* unavailing because we conclude Appellants' claims on appeal are unlike the subject claim(s) considered by the court in *McRO*.[9]

The patent at issue in *McRO* describes that prior character animation and lip synchronization were accomplished by human animators, with the assistance of a computer, which involved the use of a so-called "keyframe" approach in which animators set appropriate parameters, i.e., morph weights,

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[9] Appellants are referring to *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016).

at certain important times, i.e., in order to produce accurate and realistic lip synchronization and facial expressions. *McRO*, 837 F.3d at 1305. Animators knew what phoneme a character pronounced at a given time from a time-aligned phonetic transcription (a "timed transcript"). *Id.*

In accordance with the prior technique, animators, using a computer, thus, manually determined the appropriate morph weight sets for each keyframe based on the phoneme timings in the timed transcript. *Id. See also SAP Am. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (distinguishing *McRO*):

> The claims in *McRO* were directed to the creation of something physical—namely, the display of "lip synchronization and facial expressions" of animated characters on screens for viewing by human eyes. *Id.* at 1313. *The claimed improvement was to how the physical display operated (to produce better quality images)*, unlike (what is present here) a claimed improvement in a mathematical technique with no improved display mechanism. The claims in *McRO* thus were not abstract in the sense that is dispositive here. And those claims also avoided being "abstract" in another sense reflected repeatedly in our cases (based on a contrast not with "physical" but with "concrete"): they had the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it.

SAP, 898 F.3d at 1167 (emphasis added).

In contrast to the claimed invention in *McRO* that *improved how a physical display operated to produce better quality images (id.)*, claim 1 merely uses generic computer components to perform the recited steps that result in the final step of "transmitting, by the transmitting device of the processing server, the authorization request to an issuer associated with the payment account for authorization of the financial transaction." Thus,

Appellants' claims on appeal do not *improve the operation of a physical display*, as was the case in *McRO*, nor the operation of any other computer component, such as the generic computer components recited in claim 1. *See SAP*, 898 F.3d at 1167.

In further support, Appellants contend the claims on appeal meet the standard in *Visual Memory LLC v. NVIDIA Corporation*, 867 F.3d 1253, 1260, 1262 (Fed. Cir. 2017). *See* App. Br. 10.

We reproduce the subject claim in *Visual Memory* below:

> 1. A computer memory system connectable to a processor and having one or more programmable operational characteristics, said characteristics being defined through configuration by said computer based on the type of said processor, wherein said system is connectable to said processor by a bus, said system comprising:
>
>   a main memory connected to said bus; and
>
>   a cache connected to said bus;
>
>   wherein a programmable operational characteristic of said system determines a type of data stored by said cache.

U.S. Patent No. 5,953,740, col. 6, ll. 28–37.

The Federal Circuit determined that *Visual Memory's* claims were directed to an improved computer memory system, and "not to the abstract idea of categorical data storage." *Visual Memory,* 867 F.3d at 1259. According to the Federal Circuit, *Visual Memory's* claims were directed to a technological improvement, i.e., an enhanced computer memory system because: (1) the claimed "programmable operational characteristics" were configurable based upon the type of processor, instead of "on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a

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tool"; and, (2) *Visual Memory's* "specification discusses the advantages offered by the technological improvement." *Id.* at 1259-60. As such, the Federal Circuit concluded that *Visual Memory's* claims were not directed to an abstract idea under *Alice*, step one. *Id.*

In contrast to the claim at issue in *Visual Memory*, Appellants' claims recite an improved method of *authenticating a payment transaction* when the mobile device is not proximate to the user at the transaction location (or in situations in which the perpetrator of the fraud is in possession of the mobile device), such that unnecessary denials of authorization for a cardholder involved in a genuine transaction are avoided. *See* Spec. ¶ 3.

Thus, the focus of Appellants' claims is on an improved *commercial interaction* (i.e., abstract idea), as detailed above in Table One. However, an improved abstract idea is still an abstract idea. *See Mayo*, 566 U.S. at 90 (holding that a novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible).

We conclude Appellants' claims merely obtain and process user *mobile phone geographic location information* using the additional elements of **generic** computer hardware, including "a database of a processing server," "a mobile device," "a receiving device of the processing server," "a transmitting device of the processing server," and "a computing device." (claim 1). For example, we find these generic devices described in Appellants' Specification, at paragraphs 16, 22, 24, 25, and 51.

McRo, Inc. v. Bandai Namco Games America Inc. (837 F.3d 1299 (Fed. Cir. 2016)) provides guidance applicable here: "[t]he abstract idea exception prevents patenting a *result* where 'it matters not by what process

or machinery the result is accomplished.'" 837 F.3d at 1312 (quoting *O'Reilly v. Morse*, 56 U.S. 62, 113 (1854)) (emphasis added).

MPEP § 2106.05(b) Particular Machine
MPEP § 2106.05(c) Particular Transformation

Appellants advance no arguments applying the *Bilski* machine-or-transformation test to any method claims on appeal. Appellants have not established that any of the recited generic computer components are "particular" machines under MPEP § 2106.05(b). Nor have Appellants established that any of the claims on appeal convert an article to a different state or thing under MPEP § 2106.05(c). Arguments not made are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

MPEP § 2106.05(e) "Other Meaningful Limitations."

Appellants advance no arguments in the Appeal Brief pertaining to any specific claim limitations that purportedly provide a *meaningful limitation* beyond generally linking the use of the judicial exception to a particular technological environment. As emphasized above, we conclude Appellants' additional elements are merely generic computer components.

Nor do the claims present any other issues as set forth in the 2019 Revised Guidance regarding a determination of whether the additional generic elements integrate the judicial exception into a practical application. *See* Revised Guidance, 84 Fed. Reg. at 55. Rather, we conclude the claims on appeal merely use instructions to implement an abstract idea on a computer, or merely use a computer as a tool to perform an abstract idea. *Id.*

Thus, under *Step 2A, Prong Two* (MPEP §§ 2106.05(a)–(c) and (e)–
(h))*,* we conclude claims 1–22 **do not integrate the judicial exception into
a practical application.** Therefore, we proceed to *Step 2B*, *The Inventive
Concept*.

The Inventive Concept – Step 2B

Under the 2019 Revised Guidance, 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 adds a specific limitation
beyond the judicial exception that is not "well-understood, routine,
conventional" in the field (*see* MPEP § 2106.05(d)); **or**, simply appends
well-understood, routine, conventional activities previously known to the
industry, specified at a high level of generality, to the judicial exception.

Berkheimer v. HP Inc., 881 F.3d 1360 (Fed. Cir. 2018)

On April 19, 2018, the PTO issued the Memorandum titled:
"Changes in Examination Procedure Pertaining to Subject Matter Eligibility,
Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)"
(hereinafter "*Berkheimer* Memorandum").[10]

The *Berkheimer* Memorandum provided specific requirements for an
Examiner to support, with evidence, any finding that *claim elements* (or a
combination of elements) are well-understood, routine, or conventional. In
reviewing the Reply Brief, we note Appellants advance arguments based
upon the change in the law effected by *Berkheimer* (Reply Br. 6–7): "Here,
the Examiner makes the **unsupported assertion** that the claims contain

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[10] Available at https://www.uspto.gov/sites/default/files/documents/memo-
berkheimer-20180419.PDF.

elements that 'are **well-understood, routine, and conventional,'** *see* Examiner's Answer at 9, **which directly opposes** the Subject Matter Eligibility Memo's guidance."

However, in reviewing the record, we note the Examiner does point to evidence in support of a *Berkheimer* finding. *See* Ans. 10–11: "The processing server is a generic computer (*see para. 0027 of appellant's specification*) that performs the receiving, processing and transmitting functionality which is well-understood, routine and conventional functionality of a generic computer."

> Paragraph 27 of Appellants' Specification describes:

> FIG. 2 illustrates an embodiment of the processing server 110 of the system 100. It will be apparent to persons having skill in the relevant art that the embodiment of the processing server 116 illustrated in FIG. 2 is provided as illustration only and *may not be exhaustive to all possible configurations of the processing server 110 suitable for performing the functions as discussed herein.* For example, the computer system 600 illustrated in FIG. 6 and discussed in more detail below may be a suitable configuration of the processing server 110.

(emphasis added).

Appellants' *Berkheimer* arguments in the Reply Brief (6–7) are not persuasive because Appellants fail to traverse the Examiner's specific findings in the Answer (10–11). *See also* Spec. ¶ 61: "Various embodiments of the present disclosure are described in terms of this *example computer system 600.* After reading this description, it will become apparent to a person skilled in the relevant art how to implement the present disclosure *using other computer systems and/or computer architectures.*" (emphasis added).

Further regarding the use of the generic (known, conventional) recited "computing device," "database of a processing server," "mobile device," "receiving device of the processing server," and "transmitting device of the processing server" (claim 1), the Supreme Court has held "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 573 U.S. 208, 223.

Our reviewing court provides additional guidance: *See* e.g., *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096 (Fed. Cir. 2016) ("the use of generic computer elements like a microprocessor or user interface do not alone transform an otherwise abstract idea into patent-eligible subject matter"), and *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (claims reciting, *inter alia*, sending messages over a network, gathering statistics, using a computerized system to automatically determine an estimated outcome, and *presenting offers to potential customers* found to merely recite "'well-understood, routine conventional activit[ies]'" by either requiring conventional computer activities or routine data-gathering steps (alteration in original, internal citation omitted)).

This guidance is applicable here. Given the extensive description of the use of generic computer elements in the Specification (e.g., ¶¶ 16, 22, 24, 25, and 51), we agree with the Examiner that without more, the claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception. *See* Final Act. 9.

Accordingly, on the record before us, we are not persuaded that claims 1–22 add a specific limitation, beyond the judicial exception, that is

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more than what was "well-understood, routine, and conventional" in the field (*see* MPEP § 2106.05(d)).

In light of the foregoing, we conclude, under the 2019 Revised Guidance, that each of Appellants' claims 1–22, considered as a whole, is **directed to** *a patent-ineligible abstract idea that is not integrated into a practical application and does not include an inventive concept.* Accordingly, for the reasons discussed above, we sustain the Examiner's Rejection A under 35 U.S.C. § 101 of claims 1–22.[11]

Rejection B of Independent Claim 1 under 35 U.S.C. § 103[12]

<u>Issue</u>: Under 35 U.S.C. § 103, did the Examiner err by finding Delia and Kirkland, collectively teach or suggest the disputed limitations:

identifying, in the database of the processing server, a specific location data entry where the at least one of a time and date included in the specific location data entry is within a predetermined period of time of the at least one of the authorization time and date included in the received authorization request;
when the geographic location included in the specific location data entry is indicative of the mobile device being not present at a point-of-sale corresponding to the location identifier,

within the meaning of representative claim 1? *See supra* n.8 ("we give the

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[11] To the extent that Appellants have not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

[12] In the event of further prosecution, we note and leave to the consideration of the Examiner a 112(b) indefiniteness rejection for the claim element "a computing device" that is introduced *twice* in both independent claims 1 and 12. It is unclear which "computing device" is being referred to. Although the Board is authorized to reject claims under 37 C.F.R. § 41.50(b), no inference should be drawn when the Board elects not to do so. *See* Manual of Patent Examining Procedure (MPEP) § 1213.02.

claim limitations the broadest reasonable interpretation consistent with the Specification. *See Morris*, 127 F.3d at 1048).

*Disputed Limitations of Representative Independent Claim 1
under Section 103 Rejection B*

First Disputed Limitation

The Examiner finds Kirkland teaches or suggests the first disputed limitation "identifying, in the database of the processing server, a specific location data entry where the at least one of a time and date included in the specific location data entry is within a predetermined period of time of the at least one of the authorization time and date included in the received authorization request." Final Act. 11.

Appellants contend the Examiner's citations to Kirkland paragraph 18 "says nothing about identifying a specific location data entry (from those saved in a database), let alone that the identified specific location data entry includes a at least one of a time and date that is within a predetermined period of time of a time and/or date included in a received authorization request, as expressly recited in claim 1." App. Br. 22.

Appellants further contend Kirkland's "transaction information" does not teach or suggest "mobile device locations at certain times and/or dates." App. Br. 22–23, citing Kirkland, par. 80. Appellants specifically contend Kirkland does not teach "identifying a specific 'location data entry'" as recited in claim 1. App. Br. 23.

The Examiner further explains Kirkland's mobile device returns a current location of the mobile device and compares it to the location of the request for authorization. Ans. 12, citing Kirkland, pars. 18, 56, 80. If these locations are the not the same, Kirkland teaches comparing transaction

information in the authorization request to records of transaction information to determine if a similar transaction was previously made. Ans. 12–13. Based upon a preponderance of the evidence, we agree with the Examiner's findings that Kirkland's evaluation of prior transactional information to authorize the current transaction teaches or at least suggests the disputed limitation.

Second Disputed Limitation

The Examiner finds Kirkland teaches or suggests the second disputed limitation "when the geographic location included in the specific location data entry is indicative of the mobile device being not present at a point-of-sale corresponding to the location identifier, transmitting, by a transmitting device of the processing server, a request to a computing device associated with the account identifier for action by a user of the computing device to prove an identity of the user." Final Act. 12, citing Kirkland pars. 83, 86, and 89.

Appellants further contend:

Contrary to independent claim **1**, which *retrieves* geolocation information *that is stored in a database* upon receiving an authorization request and identifying a specific location data entry, *Kirkland,* upon receiving an authorization request, *sends a request to a mobile device in order to receive its current location.* See, e.g., paragraphs [0085], [0086]. Contrary to the assertions made by the Examiner, document, particular these cited portions, does not disclose or suggest that geolocation information, stored in an identified specific location data entry, is used to determine if a mobile device is not present at a point of sale, as in the present claims. Rather, in stark contrast, after the authorization request is received, *Kirkland* sends a request to the mobile device to request its current location and then compares the received current location with the transaction location. This is not equivalent to the recited feature of **"when**

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the geographic location *included in the specific location data*
entry is indicative of the mobile device being not present at a
point-of-sale corresponding to the location identifier,
transmitting ... a request to a computing device."

App. Br. 25.

Claim Construction

As an initial matter of claim construction, we focus our analysis on

the conditional limitation:

> *when* the geographic location included in the specific location
> data entry *is indicative of the mobile device being not present at*
> *a point-of-sale corresponding to the location identifier*,
> transmitting, by a transmitting device of the processing server, a
> request to a computing device associated with the account
> identifier for action by a user of the computing device to prove
> an identity of the user;

Claim 1 (emphasis added).

We note that conditional steps employed in a method claim need not

be found in the prior art if, under the broadest reasonable interpretation, the

method need not invoke those steps. *See Ex parte Schulhauser*, No. 2013-

007847, 2016 WL 6277792 at *4 (PTAB April 28, 2016) (precedential)

(holding "[t]he Examiner did not need to present evidence of the

obviousness of the remaining method steps of claim 1 that are not required

to be performed under a broadest reasonable interpretation of the claim

. . . ."; *see also Ex parte Katz*, No. 2010-006083, 2011 WL 514314, at *4–5

(BPAI Jan. 27, 2011).[13]

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[13] *See also Applera Corp. v. Illumina, Inc.*, 375 F. App'x 12, 21 (Fed. Cir.
2010) (unpublished) (affirming a district court's interpretation of a method
claim as including a step that need not be practiced if the condition for
practicing the step is not met); *Cybersettle, Inc. v. Nat'l Arbitration Forum,*
Inc., 243 F. App'x 603, 607 (Fed. Cir. 2007) (unpublished) ("It is of course

Applying this reasoning here, we conclude the condition precedent ("when the geographic location included in the specific location data entry is indicative of the mobile device being not present at a point-of-sale corresponding to the location identifier") of method claim 1 is not positively recited as actually occurring, under a broad but reasonable interpretation.

Assuming *arguendo* that our reviewing court may decide to give the contested conditional step of claim 1 patentable weight, we reach the merits of the obviousness rejection, *infra*.

The Examiner finds Kirkland's identifier information is used to lookup an associated location of the merchant in a location database; Kirkland's location information is used to authorize a transaction and also historical transaction information is checked in authorizing a transaction. *See* Ans. 14–15, citing Kirkland pars. 56, 83, 89, 80. We find these teachings collectively at least suggest the disputed limitation.

"'[T]he question under 35 U.S.C. § 103 is not merely what the references expressly teach but what they would have *suggested* to one of ordinary skill in the art at the time the invention was made.'" *Merck & Co. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) (quoting *In re Lamberti*, 545 F.2d 747, 750 (CCPA 1976)). (Emphasis added); *see also* MPEP § 2123.

This reasoning is applicable here. Therefore, we find a preponderance of the evidence supports the Examiner's ultimate legal conclusion of obviousness for Rejection B of independent claim 1. *See* Ans. 11–16.

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true that method steps may be contingent. If the condition for performing a contingent step is not satisfied, the performance recited by the step need not be carried out in order for the claimed method to be performed.").

Accordingly, we sustain the Examiner's Rejection B of representative independent claim 1. Grouped claims 2–5, 9, 10, 12–16, and 20–22, also rejected under Rejection B (and not argued separately) fall with representative independent claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv). Accordingly, we sustain the Examiner's Rejection B under § 103 of claims 1–5, 9, 10, 12–16, and 20–22.

Rejection C of Dependent Claims 6 and 17 and
Rejection D of Dependent Claims 7, 8, 18 and 19

Appellants advances no separate, substantive arguments for dependent claims 6–8 and 17–19. Although Appellants urge these claims each fail to disclose or suggest the disputed recitations of the base claims (App. Br. 27), we find no deficiencies with the Examiner's Rejection B under §103 of claims 1–5, 9, 10, 12–16, and 20–22, for the reasons discussed *supra*.

Accordingly, we sustain the Examiner's Rejection C of dependent claims 6 and 17, and Rejection D of dependent claims 7, 8, 18, and 19.

DECISION

We affirm the Examiner's decision rejecting claims 1–22 under 35 U.S.C. § 101.

We affirm the Examiner's decision rejecting claims 1–10 and 12–22 under 35 U.S.C. § 103.[14]

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

AFFIRMED

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[14] *See supra* n.3 regarding dependent claim 11.