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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HASMUKH DHOLAKIYA

Appeal 2018-008842
Application 12/910,200
Technology Center 3600

Before ST. JOHN COURTENAY III, MARC S. HOFF, and
JOYCE CRAIG, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from a Final rejection of claims 1–19. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b). We affirm.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). According to Appellant, the real party in interest is Appellant, Hasmukh Dholakiya. *See* Appeal Br. 3.

STATEMENT OF THE CASE

Introduction

Embodiments of Appellant’s invention “relates generally to jewelry and selling of jewelry and, more particularly, to selling pieces of jewelry that include gemstones.” Spec. ¶ 1.

Rejections

- A. Claims 1–19 are rejected under 35 U.S.C. § 101, as being directed to a judicial exception, without significantly more. *See* Final Act. 7.
- B. Claims 1–11, and 13–19 are rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over the combined teachings and suggestions of Yeko, SR et al. (US 2006/0020524 A1, published Jan. 26, 2006) (hereinafter “Yeko”) in view of in Moryto (US 2009/0070273 A1, published Mar. 12, 2009). *See* Final Act. 10.
- C. Claim 12 is rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over the combined teachings and suggestions of Yeko, Moryto, and Hsien-Chung (US 5,351,378, issued Oct. 4, 1994). *See* Final Act. 17.

Issues on Appeal

Did the Examiner err in rejecting claims 1–19 under 35 U.S.C. § 101, as being directed to a judicial exception, without significantly more?

Did the Examiner err in rejecting claims 1–19 under pre-AIA 35 U.S.C. § 103(a), as being obvious over the combined teachings and suggestions of the cited references?

ANALYSIS

We reproduce *infra* independent claim 1 in Table One. We have considered all of Appellant’s arguments and any evidence presented. To the extent Appellant has 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).

Rejection A under 35 U.S.C. § 101

Principles of Law

A. Section 101

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court’s two-part framework, described in *Mayo* and *Alice*. *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Court held that “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the 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 (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). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

B. USPTO § 101 Guidance

The U. S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (“2019 Memorandum”).² Under that guidance, we first look to whether the claim recites:

- (1) (*see* 2019 Memorandum Step 2A – Prong One) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and

² The Office issued a further memorandum on October 17, 2019 (the “October 2019 Memorandum”) clarifying guidance of the January 2019 Memorandum in response to received public comments. *See* https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf. Moreover, “[a]ll USPTO personnel are, as a matter of internal agency management, expected to follow the guidance.” January 2019 Memorandum at 51; *see also* October 2019 Memorandum at 1.

(2) (*see* 2019 Memorandum Step 2A – Prong Two) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).³

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

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

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

See 2019 Memorandum Step 2B.

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;

³ This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Memorandum - Section III(A)(2).

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 (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 Memorandum, 84 Fed. Reg. at 52.

According to the 2019 Memorandum, “[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 Memorandum, 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 Memorandum, 84 Fed. Reg. at 54–55 (“Prong Two”).

2019 Memorandum, Step 2A, Prong One⁴
The Judicial Exception

Under the 2019 Memorandum, 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.

The Examiner concludes that independent claim 10 recites an abstract idea, because the claim describes:

The jewelry information collection, association and storage concept described in the claim is similar to the data collection,

⁴ 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).

recognition and storage concept that found to be abstract in *Content Extraction and Transmission LLC v. Wells Fargo Bank* (Fed. Cir. 2014).

Although the claim enumerates the type of information (*i.e.* purchase and use of the jewelry and personal story) that is acquired, stored and analyzed, the Federal Circuit has explained in *Electric Power Group* and *Digitech* that the mere selection and manipulation of particular information by itself does not make an abstract concept any less abstract.

Final Act. 8 (emphasis added).

In this Decision, we apply the Director’s 2019 Memorandum *de novo*. In Table One below, we identify in *italics* the specific claim limitations that we conclude recite an abstract idea. We identify in **bold** the additional (non-abstract) claim limitations that are generic computer components.

TABLE ONE⁵

Independent Claim 10	2019 Memorandum
[a] <i>A method of selling</i> jewelry , the method comprising:	A method (process) is a statutory subject matter class. <i>See</i> 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.”).

⁵ Based upon Appellant’s arguments, and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of § 101 Rejection A of claims 1–19 on the basis of representative method claim 10.

Independent Claim 10	2019 Memorandum
	<p>Abstract idea: A method of selling jewelry is a fundamental economic practice including the subcategories of commercial interactions such as agreements in the form of contracts, sales activities or behaviors and business relations that could also be performed alternatively as a mental step. <i>See</i> 2019 Memorandum 52.</p> <p>The jewelry is a non-abstract limitation.</p>
<p>[b] providing jewelry including a setting and a gemstone;</p>	<p>The jewelry, setting, and gemstone are additional non-abstract limitations.</p>
<p>[c] providing the jewelry to a customer together with an information tag associated with the jewelry, wherein the information tag has a unique one to one correlation with the piece of jewelry, the correlation being established by an identification code,</p>	<p>The jewelry and information tag are additional non-abstract limitations.</p> <p>The unique identification code on the information tag is data.</p>
<p>[d] wherein the identification code is an alphanumeric string that includes a unique one to one correlation with the piece of jewelry and the information tag, wherein the identification code is placed on the information tag and the piece of jewelry</p>	<p>The unique identification code on the information tag is data.</p> <p>The piece of jewelry, information tag, setting, and gemstone are additional non-abstract limitations.</p>

Independent Claim 10	2019 Memorandum
including both the setting and the gemstone,	
[e] the information tag <i>reciting an initial story of the jewelry as presented to the customer,</i> the initial story being maintained in a server associated with a website; and	Abstract idea: Providing (reciting) the story or history of the jewelry is a certain method of organizing human activity, including fundamental economic principles or practices, further including commercial or legal interactions (including advertising, marketing or sales activities or behaviors, and business relations). <i>See</i> 2019 Memorandum, 84 Fed. Reg. at 52.
[f] providing a website on a computer to the customer for registration of the jewelry, the website permitting the customer to <i>enter personal information regarding purchase and use of the jewelry in said computer</i> in order to personalize the story to provide a personal story of the piece of jewelry, wherein the personal story of the piece of jewelry is associated with the identification code and maintained in a server associated with a website;	Abstract idea: Entering personal information regarding the purchase and use of the jewelry is a certain method of organizing human activity, including fundamental economic principles or practices, further including commercial or legal interactions, and business relations). <i>See</i> 2019 Memorandum, 84 Fed. Reg. at 52. The identification code on the information tag is data.
[g] wherein the jewelry and the information tag are associated and have a one to one relationship, the information tag uniquely identifying the jewelry,	The unique identification code on the information tag is data.

Independent Claim 10	2019 Memorandum
wherein the website on a computer provides for registration of the information available in the information tag in a storage media.	The jewelry, information tag, computer, and storage media are additional non-abstract limitations.

*Abstract Ideas — Mental Processes
and Fundamental Economic Practices*

After considering representative method claim 10 as a whole, we conclude the recited *italicized* functions shown in Table One implement a fundamental economic practice that falls into the subcategories of commercial interactions such as agreements in the form of contracts, sales activities or behaviors and business relations that could also be performed alternatively as a mental process.⁶ *See* 2019 Memorandum, 84 Fed. Reg. at 52. *See also* “*Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307,

⁶ If a method can be performed by human thought alone, or by a human using pen and paper, it is merely an abstract idea and is not patent eligible under § 101. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011); “That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.” *CyberSource*, 654 F.3d at 1375. *See also Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146–47 (Fed. Cir. 2016). Moreover, “[u]sing a computer to accelerate an ineligible mental process does not make that process patent-eligible.” *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.* (U.S.), 687 F.3d 1266, 1279 (Fed. Cir. 2012); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (“[R]elying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.”).

1318 (Fed. Cir. 2016) (“[W]ith the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.”) 2019 Memorandum, 84 Fed. Reg. at 52 n.14 (emphasis omitted).

“An abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). Merely combining several abstract ideas does not render the combination any less abstract. *See RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (“Adding one abstract idea (math) to another abstract idea . . . does not render the claim non-abstract.”); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (determining the pending claims were directed to a combination of abstract ideas).

For at least these reasons, we conclude that representative independent method claim 10 and system claim 1 (which recites similar limitations of commensurate scope) recite the specific types of abstract ideas identified above in Table One.

Additional Limitations

As emphasized in **bold** in Table One, *supra*, we note the additional non-abstract limitations recited in representative method claim 10: a piece of jewelry, an information tag associated with the piece of jewelry, wherein the jewelry includes a setting and a gemstone; also the claim recites a computer, and a server. We further note the supporting exemplary descriptions of generic computer components in the Specification, for example:

Each step in the method and system may be implemented by a computer, microprocessor, or a network of computers, and information (including the information tag) may be stored on a database, a network of computers and/or any other computer readable storage medium.

Spec. ¶ 51.

We emphasize that *McRO, Inc. v. Bandai Namco Games America Inc.*, (837 F.3d 1299 (Fed. Cir. 2016)), guides: “[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). *See supra* Table One. Because we conclude all claims 1–19 on appeal recite an abstract idea, as identified above, under *Step 2A, Prong One*, we proceed to *Step 2A, Prong Two*.

2019 Memorandum, Step 2A, Prong Two

Integration of the Judicial Exception into a Practical Application

Pursuant to the 2019 Memorandum, we consider whether there are additional elements set forth in the claims that integrate the judicial exception into a practical application. *See* 2019 Memorandum, 84 Fed. Reg. at 54–55.

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

Citing to *Enfish* in support, Appellant argues:

Applicant submits that the claimed subject matter is an improvement to a technological field of a system to sell jewelry which provides information about the jewelry including history

of it as well as enable other buyers to add their information, and thus amounts to significantly more than a judicial exception.

Appeal Br. 18 (emphasis added).

Appellant further avers:

The Amended claims offers a technical solution that provides the consumer with a much simpler and streamlined approach to get an authenticated story behind the manufacture and history of the jewelry. The present invention solves numerous problem not addressed by the prior art: (1) authenticating the story behind the manufacture of the jewelry and ensuring that portions of the jewelry have not been changed (e.g. the gemstone has not been swapped out). (2) authenticating, storing and maintaining the personal history and personal story of the piece of the jewelry, the personal story of the piece of the jewelry being associated with the identification code and maintained in a server associated with a website.

Appeal Br. 19 (emphasis added).

Enfish

We note that the *Enfish* court held that the subject claims “are not directed to an abstract idea within the meaning of *Alice*. Rather, they are directed to a specific *improvement to the way computers operate*, embodied in the *self-referential table*.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016) (emphasis added).

As found by the *Enfish* court, the structural requirements of prior databases required a programmer to predefine a structure and subsequent data entry had to conform to that structure. *See Enfish*, 822 F.3d at 1337. However, the “database of the present invention does not require a programmer to preconfigure a structure to which a user must adapt data entry.” *Id.*

We emphasize that the *self-referential database table* considered by the court in *Enfish* was found to be a specific type of data structure that was designed to *improve* the way a computer stores and retrieves data in memory. *Enfish*, 822 F.3d at 1339. Because the *Enfish* court found the claimed *self-referential database table improved* the way the computer stored and retrieved data, the court concluded that the *Enfish* claims were not directed to an abstract idea, and thus ended the eligibility analysis at *Alice* step one. *Id.* at 1336.

Here, Appellant has not shown that any of the features of the claims before us on appeal improve the way the recited generic *computer* or *server* stores and retrieves data, in a manner analogous to that found by the court in *Enfish*. See Appellant's independent claims 1 and 10. Although Appellant's claims 1 and 10 include a generic "computer" and "server," we find Appellant's claims 1–19 are silent regarding any mention of a *database*, must less any mention of a *database storage device* that includes a *self-referential database table* of the type found by the *Enfish* court to *improve* the way a computer stores and retrieves data in memory.

Therefore, on this record, we are not persuaded that Appellant's claimed invention improves the recited *computer* or *server* functionality or efficiency, or otherwise changes the way the claimed generic computer components function, at least in the sense contemplated by the Federal Circuit in *Enfish*.

However, the recited method of selling jewelry includes several abstract ideas (mental steps and a fundamental economic practice), as detailed in Table One above. To the extent the informational content of the information tag might *arguendo* be an improvement over prior art gemstone

certifications and the like, we note 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). *See also Synopsys*, 839 F.3d at 1151 (“[A] claim for a new abstract idea is still an abstract idea.”) (emphasis omitted);

Moreover, as set forth in MPEP § 2106.05(a):

To show that the involvement of a computer assists in *improving the technology*, the claims *must recite the details regarding how a computer aids the method, the extent to which the computer aids the method, or the significance of a computer to the performance of the method*. Merely adding generic computer components to perform the method is not sufficient. Thus, the claim must include more than mere instructions to perform the method on a generic component or machinery to qualify as an improvement to an existing technology.

(Emphasis added).

Here, Appellant has not provided sufficient details regarding how the recited computer and server (claims 1 and 10) include more than mere instructions to perform the recited functions to qualify as an improvement to an existing technology.

As discussed above, we conclude Appellant’s generic computer implementation performs a method of organizing human activity including fundamental economic practices that can be performed alternatively as mental processes. *See* independent Claims 1 and 10. Moreover, the “‘mere automation of manual processes using generic computers’ . . . ‘does not constitute a patentable improvement in computer technology,’” *Trading Techs. Int’l v. IBG LLC*, 921 F.3d 1378, 1384 (Fed. Cir. 2019) (quoting *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017)).

Accordingly, on this record, we conclude that independent claims 1 and 10 do not recite an improvement to the functionality of a computer or other technology or technical field. *See* MPEP § 2106.05(a).

MPEP §§ 2106.05(b) and (c)

The Bilski Machine-or-Transformation test (“MoT”)

We note the Supreme Court cautions that the *MoT* test is not the sole test, but may provide a useful clue:

This Court’s precedents establish that the machine-or-transformation test is a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under § 101. The machine-or-transformation test **is not the sole test** for deciding whether an invention is a patent-eligible “**process**.”

Bilski, 561 U.S. at 604 (emphasis added).

Here, Appellant advances no arguments that any of method claims 10–19 are tied to a particular machine, or transform an article to a different state or thing. *See* MPEP § 2106.05(c).

*MPEP § 2106.05(e) — Meaningful Claim Limitations*⁷

Appellant does not advance further substantive, persuasive arguments as to any specific “meaningful” claim limitations, such as those of the types

⁷ *See* 2019 Memorandum, 84 Fed. Reg. 55, citing MPEP § 2106.05(e): “[A]pply[ing] or us[ing] 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.” (emphasis added).

addressed under MPEP § 2106.05(e), *that impose meaningful limits on the judicial exception.*

As discussed above, we conclude that the recited *italicized* functions shown in Table One could also be performed alternatively as a mental process. *See* 2019 Memorandum, 84 Fed. Reg. at 52. As also discussed above, we see nothing in Appellant's claims that specifically improves the efficiency of the recited computer and server (claims 1 and 10), or another technology or technical field, as addressed above under MPEP § 2106.05(a).

Accordingly, on this record, we conclude representative independent claim 10 has no other argued meaningful limitations, as considered under section 2106.05(e) of the MPEP, pursuant to the 2019 Memorandum.

MPEP § 2106.05(f)
Merely including instructions to implement
an abstract idea on a computer, or
Merely using a computer as a tool
to perform an abstract idea

We conclude Appellant's claimed invention merely implements the abstract idea using *instructions* executed on generic computer components, as depicted in **bold** type in Table One, and as supported in our reproduction of the Specification, paragraph 51, *supra*. Thus, we conclude Appellant's claims merely use a computer/processor as a tool to perform an abstract idea.

MPEP § 2106.05(g)
Adding insignificant extra-solution activity
to the judicial exception

As mapped in the right column of Table One, *supra*, we conclude that representative independent method claim 10 recites extra or post-solution activities that courts have determined to be insufficient to transform judicially excepted subject matter into a patent-eligible application. *See* MPEP § 2106.05(g); 2019 Memorandum, 84 Fed. Reg. at 55 n.31.

MPEP § 2106.05(h)
Generally linking the use of the judicial exception to a particular
technological environment or field of use

The Supreme Court guides: “the prohibition against patenting abstract ideas ‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or [by] adding ‘insignificant postsolution activity.’” *Bilski*, 561 U.S. at 611–12, (quoting *Diehr*, 450 U.S. at 191–92).

Appellant advances no *lack of preemption* argument in the Appeal Brief. Nor do claims 1–19 on appeal present any other issues as set forth in the 2019 Memorandum regarding a determination of whether the additional generic elements integrate the judicial exception into a practical application. *See* 2019 Memorandum, 84 Fed. Reg. at 55.

Thus, under *Step 2A, Prong Two* (MPEP §§ 2106.05(a)–(c) and (e)–(h)), we conclude claims 1–19 **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 Memorandum, 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)

Berkheimer was decided by the Federal Circuit on February 8, 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”).⁸

Under *Step 2B*, the Examiner finds, *inter alia*:

Addressing representative claim 10, the claim recites additional elements including a website on a computer, a server, and a storage media. However, these elements are recited a generic manner (see specification P[0051]) and operate using **well-understood, routine and conventional** functions (see July 2015 Update, section IV, p. 7), such as:

- receiving/storing data (e.g. initial story maintained in a server, permitting customer to enter personal information, information tag in a storage media, etc.)
- receiving or transmitting data over a network (providing a website for registration, etc.).

⁸ Available at <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF>.

Moreover, steps of “providing jewelry including a setting and a gemstone; providing the jewelry to a customer together with an information tag associated with the jewelry. . .” represents little more than pre-solution activity and does not serve to provide “significantly more” than the abstract idea. Even considered as an ordered combination, the additional limitations of claim 10 do not add anything further than when they are considered individually.

Thus, under Step 2B of the Mayo framework, claim 10 is ineligible as claim 1 does not recite additional elements which result in significantly more than the abstract idea itself.

Final Act. 9 (emphasis added).

Appellant has not invoked *Berkheimer* or advanced arguments rebutting or otherwise traversing the Examiner’s findings. Further, regarding the use of the recited generic computer components identified above in Table One, the Supreme Court has held that “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223. Our reviewing court provides additional guidance: *See FairWarning*, 839 F.3d at 1096 (“[T]he use of generic computer elements like a microprocessor or user interface do not alone transform an otherwise abstract idea into patent-eligible subject matter.”); *OIP Techs*, 788 F.3d at 1363 (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],’ either by requiring conventional computer activities or routine data-gathering steps” (alteration in original)).

This reasoning is applicable here. Therefore, on the record before us, Appellant has not shown that the claims on appeal add a specific limitation

beyond the judicial exception that is not well-understood, routine, and conventional, when the claim limitations are considered both individually and as an ordered combination. *See* MPEP § 2106.05(d).

In light of the foregoing, we conclude, under the 2019 Memorandum, that each of Appellant's claims 1–19, 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 under 35 U.S.C. § 101 of claims 1–19.⁹

Rejection B of Independent Claim 1 under § 103(a)

Based upon Appellant's arguments, and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of § 103(a) Rejection B of claims 1–11 and 13–19 on the basis of representative claim 1.

Issue: Under 35 U.S.C. § 103(a), we focus our analysis on the following argued limitations from claim 1 that we find to be dispositive regarding obviousness Rejections B and C of all claims 1–19:

Did the Examiner err by finding that Yeko and Moryto would have collectively taught or suggested the disputed limitations e, f, and g of representative claim 1:

[e] wherein the information tag has a unique one to one correlation with the piece of jewelry, the correlation being established by an identification code,

⁹ To the extent Appellant has 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).

[f] wherein the identification code is an alphanumeric string having a unique one to one correlation with the piece of jewelry and the information tag,

[g] wherein the identification code is placed on the information tag and the piece of jewelry including both the setting and the gemstone, within the meaning of independent representative claim 1? *See supra*, n.4.

The Examiner relies principally on Yeko to teach or suggest the contested “wherein” clauses e, f, and g of claim 1. *See* Final Act. 11 mapping limitation “d” to Yeko ¶¶ 68, 103, Figs. 30–32; limitation “e” to Yeko ¶¶ 31, 103; and limitation “f” to Yeko ¶ 31.

We have reviewed Appellant’s arguments in the Briefs, the Examiner’s obviousness rejections, and the Examiner’s response to Appellant’s arguments. Appellant does not proffer sufficient argument or evidence for us to find error in the Examiner’s findings. *See Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential). For at least the reasons discussed below, we agree with and adopt the Examiner’s findings and conclusions in the Final Action and Answer.

Appellant asserts: “[t]he combination of Yeko and Moryto fails to teach or suggest, at least” the “wherein” clause limitations e, f, and g of claim 1. Appeal Br. 24. However, in support, Appellant focuses the substantive argument on whether the combination of references specifically teaches limitation g: “wherein the identification code is placed on the information tag and the piece of jewelry including both the setting and the gemstone.” Claim 1. Appellant contends “[t]he combination of references at best teaches an identification code on **either the stone or its mounting, not both**, as positively recited in the claims.” Appeal Br. 26 (emphasis added).

In support, Appellant argues:

Moryto provides, “the stone OR its mounting will bear a human-readable indicia of identification such as a serial number.” See Moryto [0033] emphasis added. Moryto also fails to teach or suggest an information tag, let alone an identification code placed on the information tag. The examiner cites to a certification for a stone which is stored in a database (See. Fig. 8). This is similar to a rating for the stone, and is repeatedly referred to as a certification or grading report that is stored in a database in Moryto [sic]. Moryto does not teach or suggest an information tag with an identification code. The specification of the current application describes the information tag as an information booklet (See [0037], Fig. 4, 5, 6 and 7). A rating stored in a database, as in Moryto, would not teach an information tag. Yeko is similarly deficient and does not teach or suggest an information tag.

Appeal Br. 26 (emphasis omitted).

The Examiner disagrees with Appellant, and further explains the mapping and basis for the rejection of claim 1. The Examiner finds Appellant is arguing the references separately. Ans. 18. The Examiner finds Yeko ¶ 68 teaches “wherein the information tag has a unique one to one correlation with the piece of jewelry, the correlation being established by an identification code.” Ans. 18 (emphasis omitted).

Turning to the evidence, we find Yeko ¶ 68 teaches or suggests, in pertinent part, an identification tag as claimed (i.e., a jewelry certificate, with a validating number or alphabetical code):

A first time customer/consumer would typically become a registered member by way of a different form/webpage than that of FIG. 6. As shown in FIG. 30, upon selecting the button 302 and providing an indication that he or she is customer/consumer, a webpage 330 would appear. In order for a user who is a customer to become a member of the program, the customer must have purchased a jewelry

item that resulted in the issuance of **a certificate** (or possibly the sale of an already-issued certificate). Assuming that such a certificate was issued, the customer would have not only **a certificate number** associated with that certificate but also **a validation number** provided by the retailer or other entity that sold the customer the jewelry item. With those two numbers (or other types of codes, such as **alphabetical codes**), the user would enter **a certificate number** into a first field 332 of the webpage 330 and a validation number into a second field 334 of that webpage and, upon doing so, press a submission button 336.

(Emphasis added).

The Examiner finds that Moryto ¶ 33 teaches: “Typically, the **stone or its mounting** will bear a human-readable indicia of identification, such as a serial number (hence, identification code).” Ans. 20 (underline omitted and bold emphasis added). The Examiner finds “Moryto also teaches in paragraph [0117]: Certificate describing the grading will be associated with the stone by way of a micro marking of the stone, such as a laser etched serial number.” Ans. 20.

Regarding the claimed “**alphanumeric** string having a unique one to one correlation with the piece of jewelry and the information tag” (claim 1 (emphasis added)), we agree with the Examiner that such alphanumeric information is non-functional descriptive material (NFDM) intended for human perception. *See* Final Act. 11, last paragraph. On this claim construction issue, we are bound by a PTAB precedential decision: *Ex parte Nehls*, 88 USPQ2d 1883, 1889 (BPAI 2008) (precedential) (“[T]he nature of the information being manipulated does not lend patentability to an otherwise unpatentable computer-implemented product or process.”). Further guidance regarding NFDM is found in the MPEP: “[W]here the

claim as a whole is directed to conveying a message or meaning to a human reader independent of the intended computer system, and/or the computer-readable medium merely serves as a support for information or data, no functional relationship exists.” MPEP § 2111.05 (III.). Moreover, as noted above, Yeko ¶ 68 expressly teaches the use of alphabetical identifying codes.

Turning to Moryto, we note paragraph 33 describes, in pertinent part:

A user, for example, can wear a piece of jewelry in which one or more stones is used as a basis of an authentication scheme. Typically, **the stone or its mounting** will bear a human-readable indicia of identification, such as a serial number, which will serve as a basis for authentication.

Moryto ¶ 33 (emphasis added).

To the extent Appellant contends “[t]he combination of references at best teaches an identification code **on either** the stone or its mounting, **not both**, as positively recited in the claims” (Appeal Br. 26 (emphasis added)), we find Moryto’s teaching of **the stone or its mounting** bearing a human-readable indicia of identification, such as a serial number is enough to at least *suggest* including the identification code (e.g., serial number) on both.

As guided by our reviewing court: “the 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. Moreover, we find the claimed placement of the identification code on the stone **and** its setting (mounting)

would have also been **obvious to try**, and would have merely produced a predictable result. Where “the problem is known, the possible approaches to solving the problem are known and finite, and the solution is predictable through use of a known option,” a solution that is obvious to try may indeed be obvious. *Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1351 (Fed. Cir. 2008), citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

A finding of obviousness under the “obvious to try” standard “does not require absolute predictability of success . . . *all that is required is a reasonable expectation of success.*” *In re Kubin*, 561 F.3d 1351, 1360 (Fed. Cir. 2009) (quoting *In re O’Farrell*, 853 F.2d 894, 903–04 (Fed. Cir. 1988)).

Therefore, based upon a preponderance of the evidence, we are not persuaded the Examiner erred regarding the claims rejected under Rejection B. Accordingly, we sustain the Examiner’s Rejection B under 35 U.S.C. § 103(a) of representative claim 1, and grouped claims 2–11 and 13–19.

Rejection C under § 103(a) of Dependent Claim 12

Appellant advances no separate, substantive arguments for the remaining dependent claim 12, also rejected under 35 U.S.C. § 103(a); therefore, such arguments are waived. *See* Appeal Br. 29. *See* 37 C.F.R. § 41.37(c)(1)(iv).

CONCLUSIONS

Under the Director’s 2019 Memorandum, as governed by relevant case law, we conclude all claims 1–19, rejected under 35 U.S.C. § 101, are directed to patent-ineligible subject matter.

The Examiner did not err in rejecting claims 1–19, as being obvious under pre-AIA 35 U.S.C. § 103(a), over the combined teachings and suggestions of the cited references.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)Basis	Affirmed	Reversed
1–19	101	Eligibility	1–19	
1–11, 13–19	103(a)	Yeko, Moryto	1–11, 13–19	
12	103(a)	Yeko, Moryto, Hsien-Chung	12	
Overall Outcome			1–19	

FINALITY AND RESPONSE

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

AFFIRMED