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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK LULIC and ALEXANDER ANTUNOVIC

Appeal 2019-006932
Application 14/310,061
Technology Center 3600

Before ROBERT E. NAPPI, ST. JOHN COURTENAY III, and
JAMES W. DEJMEK, *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, 2, 7–12, and 17–25. Claims 3–6 and 13–16 are withdrawn. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We affirm in part.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a) (2018). According to Appellant, the real party in interest is MasterCard International Incorporated. *See* Appeal Br. 3.

STATEMENT OF THE CASE ²

Introduction

Appellant’s claimed invention relates generally to “bus rapid transit ticketing.” Spec. 1, Title.

Evidence

The prior art relied upon by the Examiner as evidence is:

Name	Reference	Date
Melis et al.	4,298,793	Nov. 3, 1981
Morrill, Jr.	5,991,749	Nov. 23, 1999
Bommarito et al.	US 6,741,523 B1	May 25, 2004
Dixon et al.	US 2011/0153495 A1	June 23, 2011

Rejections

Rej.	Claims Rejected	35 U.S.C. §	Reference(s)/Basis
A	11, 12, 17–19, 22–25	101	Eligibility
B	1, 2, 10–12, 19, 20, 22–24	102(a)(1)	Dixon et al. (“Dixon”)
C	9, 17	103	Dixon
D	7, 8, 21	103	Dixon, Melis et al. (“Melis”)
E	18	103	Dixon, Melis, Morrill, Jr. (“Morrill”)

² We herein refer to the Final Office Action, mailed July 13, 2018 (“Final Act.”); Appeal Brief, filed Mar. 15, 2019 (“Appeal Br.”); the Examiner’s Answer, mailed July 12, 2019 (“Ans.”); and the Reply Brief, filed Sept. 25, 2019 (“Reply Br.”).

Rej.	Claims Rejected	35 U.S.C. §	Reference(s)/Basis
F	25	103	Dixon, Bommarito et al. ("Bommarito"), Official Notice

Rejection A of Claims 11, 12, 17–19, and 22–25 under § 101

At the outset, we note the PTO-90C communication that was mailed on July 25, 2019, after the Examiner's Answer was mailed on July 12, 2019. In the PTO-90C communication, the Examiner clarifies the status of the Section 101 rejection in this appeal:

The "Grounds of Rejection to be Reviewed" in the Examiner[']s Answer mailed July 12, 2019 mistakenly included claim numbers for which the 101 rejection has been withdrawn.

The correct status is:

For claims 1, 2, 7-10, 20, and 21 the rejection made under 101 is WITHDRAWN.

For claims 11, 12, 17-19, and 22-25 the rejection made under 101 is MAINTAINED.

Appellant responds and traverses the Examiner's Rejection A under 35 U.S.C. § 101 of claims 11, 12, 17–19, and 22–25 in the Reply Brief (2–14).

USPTO § 101 Guidance

The U.S. Patent and Trademark Office (USPTO) has published revised guidance on the application of 35 U.S.C. § 101. *See* USPTO January 7, 2019 Memorandum, 2019 Revised Patent Subject Matter

Eligibility Guidance, 84 Fed. Reg. 50 (“2019 Memorandum”).³ 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) (*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)).⁴

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.

³ 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.” 2019 Memorandum, 84 Fed. Reg. at 51; *see also* October 2019 Memorandum at 1.

⁴ 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).

Because there is no single definition of an “abstract idea” under *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208 (2014) Step 1, the 2019 Memorandum synthesizes, 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 (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 including 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”).

ANALYSIS

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

We reproduce *infra* independent claim 11 in Table One. We have considered all of Appellant’s arguments and any evidence presented. We highlight and address specific findings and arguments for emphasis in our

analysis below.⁵

Rejection A of Claims 11, 12, 17–19, and 22–25 under § 101

The Examiner concludes the claims recite an abstract idea, i.e., “the abstract idea of formation of financial transactions in a particular field (i.e., mass transit) and data collection related to such transactions (as shown in the recited functions of claims).” Final Act. 5.

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.

Independent Claim 11

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

TABLE ONE ⁶

Independent Claim 11	2019 Memorandum
[a] A method comprising the steps of: ⁷	

⁵ Throughout this opinion, we give the claim limitations the broadest reasonable interpretation (BRI) consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

⁶ We apply the Director’s 2019 Memorandum *de novo*.

⁷ A method falls under the statutory subject matter class of a process. *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

Independent Claim 11	2019 Memorandum
<p>[b] dispatching, from a portable electronic device of a prospective transit rider, to a remote server, an indication that said prospective transit rider has come into geographic proximity of a particular transit boarding area;</p>	<p>dispatching, from a portable electronic device of a prospective transit rider, to a remote server, an indication that said prospective transit rider has come into geographic proximity of a particular transit boarding area is insignificant extra-solution activity (i.e., data transmission). <i>See</i> 2019 Memorandum, 84 Fed. Reg. at 55 n.31; <i>see also</i> MPEP § 2106.05(g).</p>
<p>[c] obtaining, from said remote server, a confirmation query seeking to confirm whether said prospective transit rider seeks to board a certain transit mode, at a certain fare, <i>said confirmation query having been determined based on said indication</i>;</p>	<p>obtaining, from said remote server, a confirmation query seeking to confirm whether said prospective transit rider seeks to board a certain transit mode, at a certain fare is insignificant extra-solution activity (i.e., data gathering). <i>See</i> 2019 Memorandum, 84 Fed. Reg. at 55 n.31; <i>see also</i> MPEP § 2106.05(g). <i>Abstract Idea: Determining said confirmation query based on said indication can be performed alternatively by a person as a mental process. See 2019 Memorandum, 84 Fed. Reg. at 52.</i></p>
<p>[d] dispatching, from said portable electronic device of said prospective transit rider, to said remote server, an affirmative response to said confirmation query; and</p>	<p>dispatching, from said portable electronic device of said prospective transit rider, to said remote server, an affirmative response to said confirmation query is insignificant extra-solution activity (i.e., transmitting data). <i>See</i> 2019</p>

useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”).

Independent Claim 11	2019 Memorandum
	Memorandum, 84 Fed. Reg. at 55 n.31; <i>see also</i> MPEP § 2106.05(g).
[e] obtaining, from said remote server , an <i>electronic ticket</i> ;	obtaining, from said remote server, an electronic ticket is insignificant extra-solution activity (i.e., data gathering). <i>See</i> 2019 Memorandum, 84 Fed. Reg. at 55 n.31; <i>see also</i> MPEP § 2106.05(g). Abstract Idea: <i>Electronic ticketing</i> is a method of organizing human activity, i.e., a fundamental economic practice, including commercial interactions, such as agreements in the form of contracts and legal obligations, sales activities, and business relations. <i>See</i> 2019 Memorandum, 84 Fed. Reg. at 52.
[f] wherein said portable electronic device of said prospective transit rider is coupled to said remote server via a telecommunication network comprising a transit network ; and	This is an arrangement of generic computer components — <i>see</i> 84 Fed. Reg. at 52 n.14.
[g] wherein said confirmation query and said electronic ticket are obtained only if said prospective transit rider is within said geographic proximity of said particular transmit [sic] boarding area. ⁸	obtaining said confirmation query and said electronic ticket is insignificant post-solution activity (i.e., data gathering). <i>See</i> 2019 Memorandum, 84 Fed. Reg. at 55 n.31; <i>see also</i> MPEP § 2106.05(g).

⁸ It appears “transmit” is a typographical error as recited in step “g” of claim 11. We understand Appellant to have likely intended the word “transit.”

Abstract Idea

As identified above in Table One, we conclude step “e” of claim 11 recites an abstract idea, i.e., *electronic ticketing* is a method of organizing human activity — a fundamental economic practice, including commercial interactions, such as agreements in the form of contracts and legal obligations (i.e., “an electronic ticket” is construed as a license to enter or ride the transit vehicle or train), sales activities, and business relations. *See* 2019 Memorandum, 84 Fed. Reg. at 52.

As also identified above in Table One, we conclude step “c” of claim 11 recites an abstract idea (i.e., a mental process). In particular, we conclude that *determining said confirmation query based on said indication* can be performed alternatively by a person as a mental process.⁹ *See* 2019 Memorandum, 84 Fed. Reg. at 52.

Thus, we consider representative claim 11 to recite two categories of abstract ideas: certain methods of organizing human activity, such as a

⁹ 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*[, 409 U.S. 63 (1972)].” *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.”).

fundamental economic practice, that could also be performed alternatively as a mental process. But merely combining several abstract ideas does not render the combination any less abstract. *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.”); *see also 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).

Because independent claim 11 **recites** an abstract idea, as identified in Table One, *supra*, and because independent claim 22 (as remaining rejected under § 101 as clarified by the Examiner) recites similar language of commensurate scope, we conclude claims 11, 12, 17–19, and 22–25 recite an abstract idea, as identified above, under *Step 2A, Prong One*. Therefore, 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.

The Examiner finds:

The additional elements recited in the independent and dependent claims beyond further refinements of the abstract idea identified above (and its attendant insignificant extra-solution data-gathering and outputting functions) are known and conventional generic computing elements (“remote server,” “portable electronic device,” GPS, “computer readable storage medium,” “hardware processor,” “transceiver module,”

“memory,” “telecommunication network,” “transit network,” “payment card network,” “bar code” see Specification pgs. 4-9, 12, 23-25, & 29-30 describing these variously as “well-known” and “known in the art,” at a high level of generality.

Final Act. 7.

Additional Generic Computer Limitations

A preponderance of the evidence supports the Examiner’s findings regarding the recitation of generic computer components. *Id.* As emphasized in **bold** in Table One, *supra*, we note the additional generic computer components recited in claim 11, for example:

[d] dispatching, from said portable electronic device of said prospective transit rider, to said remote server , an affirmative response to said confirmation query; and	dispatching, from said portable electronic device of said prospective transit rider, to said remote server, an affirmative response to said confirmation query is insignificant extra-solution activity (i.e., transmitting data). <i>See</i> 2019 Memorandum, 84 Fed. Reg. at 55 n.31; <i>see also</i> MPEP § 2106.05(g).
[e] obtaining, from said remote server , an electronic ticket;	obtaining, from said remote server, an electronic ticket is insignificant extra-solution activity (i.e., data gathering). <i>See</i> 2019 Memorandum, 84 Fed. Reg. at 55 n.31; <i>see also</i> MPEP § 2106.05(g).

We further note the supporting exemplary, non-limiting descriptions of generic computer components in the Specification, for example, at page 4, l. 22 (“System 100 can include one or more different types of portable payment devices.”) and pages 2–7. *See also*, e.g., Spec. 7, ll. 8–15, describing generic computer and network components:

Network 138 could include, for example, the Internet, or a proprietary network (e.g., a virtual private network (VPN) such as is described with respect to FIG. 2 below). More than one network could be employed to connect different elements of the system. For example, a local area network (LAN) could connect a terminal to a local server or other computer at a retail establishment. A payment network could connect acquirers and issuers. Further details regarding one specific form of payment network will be provided below. Processing centers 140, 142, 144 can include, for example, a host computer of an issuer of a payment device.

We emphasize that *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) guides: “The 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.

MPEP § 2106.05(a)

*Improvements to the Functioning of a Computer or
to Any Other Technology or Technical Field*

Appellant contends “the technological processes, as well as the improvement by embodiments of the claimed invention, are described by the specification at, for example, page 1, lines 12-24.” Reply Br. 8. In further support, Appellant points to the Specification at page 14, line 7 through page 15, line 17. *See* Reply Br. 8–9.

Appellant contends:

[T]he present claims are distinguishable from *Smart Systems* because, as discussed above, the present claims provide a method for processing data that improves technological processes. Contrast *Smart Systems Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d at 1372 (“The Asserted Claims are not directed to a new type of bankcard, turnstile, or database, nor do the

claims provide a method for processing data that improves existing technological processes.”).

Reply Br. 10.

We disagree with Appellant that the claims on appeal are distinguishable from the open-payment fare system considered by the court in *Smart Systems*. In *Smart Systems*, the subject claims were directed to “[a]n open-payment fare system [that] allow[ed] riders to conveniently and quickly access mass transit by using existing bankcards,” such as debit and credit cards, thereby ““eliminat[ing] the need for, and added operational cost of, dedicated fare-cards, paper tickets, and tokens.” *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1368 (Fed. Cir. 2017) (last alteration in original).

Here, Appellant’s claimed invention similarly eliminates the need for the added operational cost of dedicated fare-cards, paper tickets, and tokens, by providing an *electronic ticket* that is obtained from a remote server wherein the electronic ticket and confirmation “are obtained only if said prospective transit rider is within said geographic proximity of said particular [transit] boarding area.” Claim 11.

Similar to the court’s holding in *Smart Systems* (873 F.3d at 1375), we conclude Appellant’s independent claim 11 merely uses generic computer and network components to collect and process data, in this case, proximity data. Similar to *Smart Systems* (873 F.3d at 1372), and to the extent that Appellant’s claimed invention *arguendo* improves prior systems of fare collection by speeding up the process at the transit entry area, this is not enough to confer patent eligibility, because “[u]sing a computer to accelerate an ineligible mental process does not make that process patent-eligible.” *Bancorp*, 687 F.3d at 1279.

Regarding independent claims 11 and 22, our reviewing court guides that the “‘mere automation of manual processes using generic computers’ . . . ‘does not constitute a patentable improvement in computer technology.’” *Trading Techs. Int’l, Inc. 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)). Simply adding generic hardware and computer components to perform abstract ideas does not integrate those ideas into a practical application, because 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; see 2019 Memorandum, 84 Fed. Reg. at 55 n.30. See also 2019 Memorandum, 84 Fed. Reg. at 55 (“‘merely includ[ing] instructions to implement an abstract idea on a computer’” is an example of when an abstract idea has not been integrated into a practical application).

We emphasize that an improved abstract idea is still an abstract idea. See *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 90 (2012) (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)).

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.

MPEP § 2106.05(a) (emphasis added).

Here, we find Appellant has not persuasively shown how the claims that remain rejected under 35 U.S.C. § 101 “*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.*” *Id.* (emphasis added).

Accordingly, on this record, we conclude independent claim 11, and independent claim 22, which recites similar limitations of commensurate scope, 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), 2106.05(c)

Appellant advances no arguments that any of the method claims that remain rejected under 35 U.S.C. § 101 are tied to a particular machine, or transform an article to a different state or thing. *See* MPEP § 2106.05(c). *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (holding that a claim does not pass the machine-or-transformation test if it is “not tied to any particular novel machine or apparatus, only a general purpose computer”).

MPEP § 2106.05(e) Meaningful Claim Limitations

The Examiner finds: “The claims [(11, 12, 17–19, and 22–25)] do not include additional elements that are sufficient to amount to significantly more than the judicial exception because there are no meaningful limitations that transform the exception into a patent eligible application.” Final Act. 7.

In response, Appellant advances no substantive, persuasive arguments that any of claims 11, 12, 17–19, and 22–25 that remain rejected under 35 U.S.C. § 101 recite certain “meaningful” claim limitations, such as those of the types addressed under MPEP § 2106.05(e), that impose meaningful limits on the judicial exception.¹⁰

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 (above), and as supported in Appellant’s Specification, for example, at pages 2–7, as discussed above.

Therefore, we conclude Appellant’s independent claims 11 and 22 merely use generic programmed computer components (e.g., “a remote server” and “a portable electronic device” (independent claim 11), and “at least one processor” and “a memory” (independent claim 22)) as tools to perform an abstract idea.

¹⁰ See 2019 Memorandum, 84 Fed. Reg. at 55, citing MPEP § 2106.05(e): “[A]ppl[y]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).

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 independent claim 11 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.

For example, *see* Claim 11, Table One, *supra*, i.e., “dispatching” steps “b” and “d,” and “obtaining” steps “c” and “e.” *See* 2019 Memorandum, 84 Fed. Reg. at 55 n.31; *see also* MPEP § 2106.05(g). *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”). These extra or post-solution limitations use a generic computer component that performs a generic computer function as a tool to perform an abstract idea. Thus, these limitations do not integrate the abstract idea into a practical application. *See Alice*, 573 U.S. at 223–24. Instead, these limitations merely perform insignificant extra-solution activities. *Cf. Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1242 (Fed. Cir. 2016) (agreeing with the Board that printing and downloading generated menus are insignificant post-solution activities). *See also Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1341 (Fed. Cir. 2017) (Streaming audio/visual data over a communications system like the Internet held patent ineligible.).

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: “[T]he 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 v. Kappos*, 561 U.S. 593, 610–12 (2010) (quoting *Diamond v. Diehr*, 450 U.S. 175, 191–92 (1981)).

To the extent that Appellant advances arguments regarding a lack of preemption in the Appeal Brief (27–28), our reviewing court provides applicable guidance: “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP Techs.*, 788 F.3d at 1362–63 (“that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract”).

Nor do claims 11, 12, 17–19, and 22–25 that remain rejected under 35 U.S.C. § 101 present any other issues as set forth in the 2019 Memorandum regarding a determination of whether the additional generic computer 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 11, 12, 17–19, and 22–25 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”).¹¹ 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.

Appellant has not invoked *Berkheimer* in the Appeal Brief or in the Reply Brief in support of any substantive, persuasive argument. Nor has Appellant traversed the Examiner’s finding that “[a]part from having and executing mere instructions to perform the abstract idea itself (e.g.,

¹¹ Available at <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF>.

‘modules’) they only serve to perform **well-understood** functions (e.g., receiving, storing, retrieving, and transmitting data over network.”

Final Act. 7. Arguments not made are waived. *See* 37 C.F.R.

§ 41.37(c)(1)(iv).

BASCOM

Appellant contends:

Even assuming *arguendo* that “the limitations of the claims, taken individually, recite generic computer, network and Internet components, none of which is inventive by itself. . . . The inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art. [A]n inventive concept can be found in the nonconventional and non-generic arrangement of known, conventional pieces.” *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349-50 (Fed. Cir. 2016).

Reply Br. 11 (alterations in original).

However, because Appellant has not advanced substantive, persuasive arguments regarding any *claimed* nonconventional and non-generic **arrangement** of known computer components, we likewise see no inventive concept in any purported ordered combination of these limitations. *Cf.* *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016) (“[A]n inventive concept can be found in the *non-conventional* and *non-generic arrangement* of known, conventional pieces.”) (emphases added).

In light of the foregoing, and under the 2019 Memorandum, we conclude that each of Appellant’s claims 11, 12, 17–19, and 22–25 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. Therefore, we sustain the Examiner's Rejection A under 35 U.S.C. § 101 of claims 11, 12, 17–19, and 22–25.¹²

Anticipation Rejection B of Independent Claims 1 and 11 under § 102(a)(1)

Representative Independent Claim 1

1. A method comprising the steps of:

[L1] *obtaining, at a remote server, an indication that a prospective transit rider has come into geographic proximity of a particular transit boarding area;*

at the remote server, dispatching an authorization request to an issuer of a payment card account associated with said prospective transit rider, based on said remote server accessing a database based on said indication;

obtaining, at said remote server, a response to said authorization request, from said issuer;

if said response is affirmative, initiating dispatch of an electronic ticket to a portable electronic device of said prospective transit rider;

wherein said remote server is coupled to said portable electronic device of said prospective transit rider via a first telecommunication network comprising a transit network;

wherein said remote server is coupled to said issuer of said payment card account via a second telecommunication network comprising a payment card network; and

wherein said authorization request and said electronic ticket are dispatched only if said prospective transit rider is within said geographic proximity of said particular transit boarding area.

¹² Regarding Rejection A under 35 U.S.C. § 101, grouped claims 12, 17–19, and 22–25 (not argued separately) fall with representative independent claim 11. See 37 C.F.R. § 41.37(c)(1)(iv).

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Appeal Br. 62, “CLAIMS APPENDIX” (bracketed lettering added and disputed limitation “L1” emphasized).

Representative Independent Claim 11

11. A method comprising the steps of:

dispatching, from a portable electronic device of a prospective transit rider, to a remote server, an indication that said prospective transit rider has come into geographic proximity of a particular transit boarding area;

[L2] *obtaining, from said remote server, a confirmation query seeking to confirm whether said prospective transit rider seeks to board a certain transit mode, at a certain fare, said confirmation query having been determined based on said indication;*

dispatching, from said portable electronic device of said prospective transit rider, to said remote server, an affirmative response to said confirmation query; and

obtaining, from said remote server, an electronic ticket;

wherein said portable electronic device of said prospective transit rider is coupled to said remote server via a telecommunication network comprising a transit network; and

wherein said confirmation query and said electronic ticket are obtained only if said prospective transit rider is within said geographic proximity of said particular transit boarding area.

Appeal Br. 65–66, “CLAIMS APPENDIX” (bracketed lettering added and the same disputed limitation “L2” emphasized).

Issues under § 102

Issues: Under 35 U.S.C. § 102(a)(1), we focus our analysis on the following argued limitations that we find to be dispositive regarding anticipation Rejection B of claims 1, 11, 20, and 22:

Did the Examiner err by finding Dixon expressly or inherently discloses contested, dispositive limitations “L1” and “L2:”

[L1] *obtaining, at a remote server, an indication that a prospective transit rider has come into geographic proximity of a particular transit boarding area;*

at the remote server, dispatching an authorization request to an issuer of a payment card account associated with said prospective transit rider, based on said remote server accessing a database based on said indication; and

[L2] *obtaining, from said remote server, a confirmation query seeking to confirm whether said prospective transit rider seeks to board a certain transit mode, at a certain fare, said confirmation query having been determined based on said indication,*

within the meaning of representative independent claims 1 and 11, respectively?¹³ Appeal Br. 62, 65–66 (emphasis added); *see* Final Act. 9–10.

Appellant disputes the Examiner’s findings regarding limitation “L1” of independent claim 1 and argues that “Dixon teaches away by suggesting arrangements where a transit user can purchase tickets at locations outside a geographic proximity of a particular transit boarding area.” Appeal Br. 35.

Appellant additionally disputes the Examiner’s findings regarding limitation “L2” of independent claim 11:

Dixon fails to disclose seeking to confirm whether a *prospective transit rider seeks to board a certain transit mode at a certain fare: i.e., the prospective transit rider confirming the fare before boarding the certain transmit mode.* Rather, Dixon repeatedly and consistently teaches arrangements in which a

¹³ We give the contested claim limitations the broadest reasonable interpretation consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

transit user is not provided with fare information until the user has at least entered, if not also exited, a transit vehicle.

Appeal Br. 40. (emphasis added, underlining omitted).

Regarding the first contention, and based upon our review of the record, the Examiner relies upon, *inter alia*, paragraph 47 of Dixon to teach the disputed limitation “**L1**”, which Appellant does not traverse.

Therein we find the following description:

[T]ransactions, such as *passage of a user at an access control point* and/or the wireless detection of a passenger’s ride on a transit vehicle can be recorded and/or tracked by the central ticketing system 112 and reconciled, on a per-transaction basis and/or collectively with other transactions. Along these lines, the *central ticketing system 112 may reconcile payment for the transactions with the funding source 165 as the transactions are received.*

Dixon ¶ 47 (emphasis added); *see* Final Act. 9.

We find Dixon’s description (Dixon ¶ 47) of a user passing through “*an access control point*” and the “*central ticketing system*” reconciling payment for such “transaction” discloses “obtaining, at a remote server, an indication that a prospective transit rider has come into geographic proximity of *a particular transit boarding area,*” and “at the *remote server,* dispatching an authorization request . . . based on said indication,” as recited in independent claim 1. (Emphases added.)

Accordingly, in reviewing the record, we find a preponderance of the evidence supports the Examiner’s finding that Dixon expressly or inherently anticipates disputed limitation “**L1**” of independent claim 1.

Regarding Appellant’s second contention, and based upon our review of the record, the Examiner relies on, *inter alia*, paragraphs 88 and 93 of Dixon to disclose the disputed limitation “**L2**” of independent claim 11,

which Appellant does not traverse.

In Dixon paragraphs 88 and 93, we find the following descriptions:

[R]oute information may be used to send local information to a transit user. As discussed above, local information can include *fare information*

[A]fter communicating with a mobile device 250 and performing any additional verification, *a transit vehicle computer 320* can send information to the mobile device 250 causing the mobile device 250 to show . . . a *fare payment indicator*

Dixon ¶¶ 88, 93 (emphasis added); *see* Final Act. 10.

We find these descriptions of a transit user receiving fare information and confirmation of fare payment, together with Dixon’s description of a “transit vehicle computer 320 . . . [that] detect[s] the mobile device 250” and then “send[s] information to the mobile device 250 requesting user input.” Dixon ¶ 91 discloses disputed limitation “**L2**” of independent claim 11. In particular, we find a “*request confirmation* by a transit user whether the transit user has boarded a transit vehicle 310” (Dixon ¶ 91), describes

obtaining, from said remote server, a confirmation query seeking to confirm whether said prospective transit rider seeks to board a certain transit mode, at a certain fare, said confirmation query having been determined based on said indication,

as recited in independent claim 11 (emphasis added).

Therefore, in reviewing the record, we find a preponderance of the evidence supports the Examiner finding that Dixon expressly or inherently anticipates disputed limitation “**L2**” of independent claim 11.

Accordingly, we sustain the Examiner’s anticipation Rejection B of independent representative claims 1 and 11. For essentially the same

reasons, we also sustain the Examiner’s anticipation Rejection B of independent claims 20 and 22, respectively, which recite similar limitations of commensurate scope. *See* Final Act. 11.

Remaining grouped dependent claims 2, 10, 12, 19, and 24 that were also rejected under the Examiner’s anticipation Rejection B, and were not argued separately, fall with their respective representative independent claim 1 or 11. *See* 37 C.F.R. § 41.37(c)(1)(iv). Accordingly, we sustain the Examiner’s anticipation rejection B of claims 1, 2, 10–12, 19, 20, 22, and 24 over Dixon. We address anticipation rejection B of dependent claim 23, *infra*, because it was argued separately.

Anticipation Rejection B of Dependent Claim 23 under § 102(a)(1)

Appellant disputes the Examiner’s anticipation rejection of claim 23 and argues that

the relied-upon portions of Dixon fail to teach or suggest *storing, by said portable electronic device of said prospective transit rider, at least one of a ride history and a purchase history* of said prospective transit rider.

Appeal Br. 44 (emphasis added, underlining omitted); *see* Final Act. 11.

Turning to the evidence relied upon by the Examiner (Dixon ¶¶ 41–42, 86–87, 102, cited in Final Act. 11), we find no express or inherent disclosure of the limitation “*storing, by said portable electronic device of said prospective transit rider, at least one of a ride history and a purchase history* of said prospective transit rider,” as recited in dependent claim 23 (emphasis added).

Although in the Answer 8–9 the Examiner explains that “the portable

device cannot collect and transmit . . . [GPS and accelerometer] data *without at least storing it temporarily*” (emphasis added) (*see* Dixon ¶¶ 86–87), we find some degree of speculation would be required to ascertain whether such GPS and accelerometer data are expressly or inherently “stored” on the “portable electronic device of said **prospective** transit rider.”

“A rejection . . . must rest on a factual basis” *In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967). “The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not . . . resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.” *Id.*

Here, we decline to engage in speculation.

On this point, we find the Examiner has not fully developed the record to show that the ride or purchase history data is stored on the “portable electronic device of said **prospective** transit rider,” as required by the language of claim 23. Therefore, we are constrained on this record to reverse the Examiner’s anticipation Rejection B of dependent claim 23.

Obviousness Rejection C of Dependent Claims 9 and 17 over Dixon

Under 35 U.S.C. § 103, we focus our analysis on the following argued limitations that we find to be dispositive regarding the rejection of dependent claims 9 and 17:

Issue: Did the Examiner err by finding Dixon teaches or suggests “*obtaining, at said remote server, from a portable electronic device of an official, a validation query comprising a bar code generated by said portable electronic device of said prospective transit rider,*” as recited in dependent claim 9, and “*providing, by said portable electronic device of said*

prospective transit rider, to an official, a bar code . . . with which said official can *formulate a validation query, from a portable electronic device of said official to said remote server,*” as recited in dependent claim 17?

Appellant contends that in Dixon, “there is no teaching or suggestion directed to any arrangement which includes *obtaining, from fare inspector device 330, a validation query* comprising a bar code or other fare payment indicator 620 displayed on user mobile device 250.” Appeal Br. 47.

Appellant further urges there is no teaching or suggestion in Dixon of “any arrangement which includes *formulating a validation query, from fare inspector device 330,* comprising a bar code or other fare payment indicator 620 displayed on user mobile device 250.” Appeal Br. 48.

In the Final Office Action, the Examiner finds:

Even if some of these functions are only disclosed specifically as the vehicle or another computer in Dixon, *one of ordinary skill would have recognized that either the central remote server or portable device is capable of performing these in the same manner.* It would have been prima facie obvious to do so because it is *merely the simple **substitution** of one computing device in the network for another with the same or similar data processing capabilities.*

Final Act. 12–13.

However, turning to the evidence (Dixon ¶¶ 93–98), we find no express teaching of “*obtaining, at said remote server, from a portable electronic device of an official, a validation query comprising a bar code*” as recited in dependent claim 9.

Our controlling case law recognizes that substitution of one known element for another in a manner that yields predictable results to one of ordinary skill in the art may support a conclusion that the claim would have

been obvious. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 415–21 (2007).

Here, however, we find the Examiner has not fully developed the record to show that “a validation query comprising a bar code” is “generated by the portable electronic device of said prospective transit rider,” and is also “obtained at said remote server, from a portable electronic device of an official, as required by the language recited in dependent claim 9.

In particular, the Examiner has not provided any evidence demonstrating why an artisan would have been motivated to **substitute** “*one computing device in the network for another with the same or similar data processing capabilities.*” Final Act. 12–13. Therefore, we are constrained on this record to reverse the Examiner’s obviousness Rejection C of dependent claim 9 over Dixon.

Similarly, for essentially the same reasons argued by Appellant in the Appeal Brief (48–49) we also reverse the Examiner’s obviousness Rejection C of dependent claim 17 over Dixon.

Obviousness Rejection D of Dependent Claims 7 and 21

Regarding obviousness Rejection D of Dependent Claims 7 and 21, Appellant argues the Examiner has not provided proper reasoning for combining Dixon with Melis:

[T]he proffered rationale is improperly “focused on what a skilled artisan would have been able to do, rather than what a skilled artisan would have been motivated to do at the time of the invention.”

Appeal Br. 50 (emphasis omitted).

In the Final Office Action Examiner finds:

Dixon does not explicitly teach the bus is a rapid transit bus; which is taught by **Meils (col. 6, lines 60-64)**. It would have been prima facie obvious to incorporate this element because it is merely a substitution of the *rapid bus* in Melis for the *bus* in Dixon. Both are disclosed as forms of transit used by riders. The only difference is the specific mode of transit itself. Based upon the level of skill displayed in the references, this **substitution** could be performed by routine engineering producing **predictable results**.

Final Act. 14 (emphasis added).

Here, in contrast to the Examiner's previous proffered substitution of "*one computing device in the network for another with the same or similar data processing capabilities*" (Final Act. 12–13) (regarding Rejection C of dependent claims 9 and 17, as discussed above), we reach a different result.

It is our view that the Examiner's proffered modification of the generic "bus" in Dixon (e.g., ¶¶ 41, 42, 54, 55, 57, 62, 87) with the "rapid" bus in Melis (col. 6, ll. 60–64) would have merely realized a predictable result—and thus we conclude it would have been obvious to one of ordinary skill in the art to substitute Dixon's *bus* with the *rapid bus* of Melis (if for no other reason, a *rapid bus* takes less time). *See KSR*, 550 U.S. at 401.

Moreover, Appellant does not point to any evidence of record that shows combining the teachings of Dixon and Melis in the manner proffered by the Examiner (Final Act. 14–15) would have been "uniquely challenging or difficult for one of ordinary skill in the art" or would have "represented an unobvious step over the prior art." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418).

Regarding Appellant's hindsight argument (Appeal Br. 50, last line), Appellant has not identified knowledge gleaned only from the present

application that was not within the level of ordinary skill at the time the claimed invention was made. *See In re McLaughlin*, 443 F.2d 1392 (CCPA 1971). Moreover, Appellant has not provided any objective evidence of secondary considerations (e.g., a long-felt need, commercial success, or unexpected results), which our reviewing court guides “operates as a beneficial check on hindsight.” *Cheese Sys., Inc. v. Tetra Pak Cheese & Powder Sys., Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013). *See* Appeal Br. 51.

Therefore, because we are not persuaded the Examiner erred, we sustain the Examiner’s obviousness Rejection D of dependent claims 7 and 21 over the combined teachings and suggestions of Dixon and Melis.

Obviousness Rejection D of Dependent Claim 8

Appellant also disputes the Examiner’s findings that Dixon at paragraphs 88, 91–93, 121, and 125 teaches or suggests the limitations of claim 8. Specifically, Appellant contends, similar to arguments made against disputed limitation “L2” of independent claim 11, that

Dixon repeatedly and consistently teaches arrangements in which a transit user is not provided with fare information until the user has at least entered, if not also exited, a transit vehicle.

Appeal Br. 52.

Based upon our review of the record, we find the Examiner also relies upon, *inter alia*, paragraphs 88 and 93 of Dixon to teach the disputed limitations of claim 8, which Appellant does not traverse.

Therefore, for essentially the same reasons discussed with respect to the anticipation rejection of claim 11, we find Dixon’s descriptions of a transit user receiving fare information and confirmation of fare payment (Dixon ¶¶ 88, 93), together with descriptions of a “transit vehicle computer

. . . detecting the mobile device 250” and “send[ing] information to the mobile device 250 requesting user input. For example, . . . *request confirmation* by a transit user whether the transit user has boarded a transit vehicle 310” (*id.* ¶ 91), teaches or at least suggests the disputed limitations of:

dispatching, from said remote server, to said portable electronic device of said prospective transit rider, *a confirmatory query asking said prospective transit rider to confirm accuracy of said associated rapid transit bus route, said associated direction of travel, and said corresponding fare*; and

obtaining, at said remote server, an affirmative response to said confirmatory query;

wherein said *dispatch of said electronic ticket to said portable electronic device of said prospective transit rider is further responsive to said affirmative response to said confirmatory query*,

as recited in dependent claim 8 (emphasis added).

In reviewing the record, we find a preponderance of the evidence supports the Examiner legal conclusion of obviousness regarding Rejection D of dependent claim 8. Accordingly, we sustain the Examiner’s obviousness Rejection D of dependent claim 8.

Rejection E of claim 18 under § 103

In view of the lack of any substantive, separate arguments directed to Rejection E of dependent claim 18, we sustain the Examiner’s Rejection E of claim 18. Arguments not made are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Rejection F of claim 25 under § 103

Claim 25 recites:

The method of Claim 24, further comprising:

displaying, by said portable electronic device of said prospective transit rider, said electronic ticket obtained from said remote server;

displaying, by said portable electronic device of said prospective transit rider, a dynamic countdown before said electronic ticket expires; and

displaying, by said portable electronic device of said prospective transit rider, a watermark after said electronic ticket expires.

In the Final Office Action the Examiner finds:

Bommarito [(Figs. 2, 3a, 3b; col. 28, line 64)] teaches displaying a dynamic countdown before said ticket expires; and displaying an indication after said ticket expires It would have been prima facie obvious to incorporate this element for the same reason it is useful in Bommarito—namely, so that *users can easily see the progression of a ticket validity period*. Both Dixon and Bommarito deal with admission tickets, and one skilled in the art would have recognized that using this technique would improve the system of Dixon due to their similar purposes and functions.

Final Act. 16 (emphasis added).

Appellant traverses Examiner's rejection of claim 25 and contends that combining Dixon and Bommarito in the manner proposed in the Office Action would render Dixon inoperable for its intended purpose, or at least

would require changing the principle of operation of at least one of the references. Appeal Br. 54.

In particular, Appellant persuasively argues: “In contrast to Dixon, the purpose of which is to allow for a transit user's existing wireless mobile device to be used in place of a traditional ticket, Bommarito is directed to an article of the invention which *implements a timer in which a fluid migrates through channels of a microstructured substrate.*” Appeal Br. 54 (citing Bommarito’s Abstract).

Because we find Appellant’s point is persuasive (*id.*), we are constrained on this record to reverse Examiner’s obviousness Rejection F of dependent claim 25.

Conclusions

Under the Director’s 2019 Memorandum, as governed by relevant case law, we conclude that claims 11, 12, 17–19, and 22–25, as remaining rejected on appeal under Rejection A under 35 U.S.C. § 101, are directed to patent-ineligible subject matter.

The Examiner did not err with respect to anticipation Rejection B of claims 1, 2, 10–12, 19, 20, 22, and 24, and obviousness Rejection D of claims 7, 8, and 21, and obviousness Rejection E of claim 18.

The Examiner erred with respect to anticipation Rejection B of claim 23, and obviousness Rejection C of claims 9 and 17, and obviousness Rejection F of claim 25.

DECISION SUMMARY

Rej.	Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
A	11, 12, 17–19, 22–25	101	Eligibility	11, 12, 17–19, 22–25	
B	1, 2, 10–12, 19, 20, 22–24	102(a)(1)	Dixon	1, 2, 10–12, 19, 20, 22, 24	23
C	9, 17	103	Dixon		9, 17
D	7, 8, 21	103	Dixon, Melis	7, 8, 21	
E	18	103	Dixon, Melis, Morrill	18	
F	25	103	Dixon, Bommarito, Official Notice		25
	Overall Outcome			1, 2, 7, 8, 10–12, 17–25	9

FINALITY AND RESPONSE

We have affirmed at least one rejection for every claim on appeal (claims 1, 2, 7–12, and 17–25) except for dependent claim 9, in which we reverse Rejection C of claim 9.

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 IN PART