

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ALLIANCE LAUNDRY SYSTEMS, LLC,
Petitioner,

v.

PAYRANGE LLC,
Patent Owner.

PGR2025-00027
Patent 11,966,920 B2

Before MEREDITH C. PETRAVICK, JUSTIN T. ARBES, and
GEORGE R. HOSKINS, *Administrative Patent Judges*.

PER CURIAM.

JUDGMENT
Final Written Decision
Determining Some Challenged Claims Unpatentable
35 U.S.C. § 328(a)

I. INTRODUCTION

Petitioner Alliance Laundry Systems, LLC filed a Petition (Paper 1, “Pet.”) pursuant to 35 U.S.C. §§ 321–329 to institute a post-grant review of U.S. Patent No. 11,966,920 B2 (Ex. 1001, “the ’920 patent”), claims 1–20. We issued an Institution Decision (Paper 12) granting the petitioned review.

Patent Owner PayRange LLC then filed a Patent Owner Response (Paper 17, “PO Resp.”). Petitioner filed a Reply (Paper 20, “Pet. Reply”). Patent Owner filed a Sur-reply (Paper 22, “PO Sur-reply”). A transcript of oral arguments is in the record. *See* Paper 30 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6(b)(4) and § 328(a). This Decision is a final written decision under 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73 as to claims 1–20 of the ’920 patent. We conclude Petitioner has demonstrated the unpatentability of claims 1–6 and 8–20, but not claim 7.

II. BACKGROUND

A. *Real Parties-in-Interest and Related Proceedings*

Petitioner identifies itself as its sole real party-in-interest. *See* Pet. 101; Paper 21, 1. Patent Owner identifies itself as its sole real party-in-interest. *See* Paper 3, 1.

The parties identify several related proceedings. *See* Pet. 1–6; Paper 3, 1–3; Paper 21, 1.

One related proceeding is *Alliance Laundry Systems, LLC v. PayRange LLC*, PGR2025-00028, in which Petitioner has challenged U.S. Patent No. 11,972,423 B2. A final written decision in PGR2025-00028 is being issued on the same day as the present Decision.

A second related proceeding is *KioSoft Techs., LLC and TechTrex, Inc. v. PayRange Inc.*, PGR2021-00093, concerning U.S. Patent No. 10,891,614 B2 (“the ’614 patent”) which is a parent of the ’920 patent. *See* Ex. 1001, code (63), 1:16–18. In PGR2021-00093, the Board issued a final written decision on December 14, 2022, determining some claims of the ’614 patent were unpatentable. *See* PGR2021-00093, Paper 38. Neither party appealed that decision, and the Office issued a post-grant review certificate cancelling the unpatentable claims on March 27, 2023. *See, e.g.*, PGR2021-00093, Paper 39.

A third related proceeding is *Alliance Laundry Systems, LLC v. PayRange Inc.*, No. 1:24-cv-733 (D. Del.) (“Related District Court Litigation”). This litigation was filed by Petitioner in part to seek a declaratory judgment of non-infringement of the ’920 patent, and Patent Owner counterclaimed to assert infringement of the ’920 patent.

B. The ’920 Patent Specification

The ’920 patent is titled “Method and System for Presenting Representations of Payment Accepting Unit Events.” Ex. 1001, code (54).

The “BACKGROUND” section of the ’920 patent states that “[a]s the number of people with Internet-connected mobile devices proliferates, so does the variety of uses for such devices.” *Id.* at 1:49, 2:16–18. The ’920 patent indicates “[m]obile payment is a logical extension” of such uses, and “[t]here is a large development effort around bringing mobile payment to the retail sector in an effort to not only provide options to the user, but also increased convenience.” *Id.* at 2:18–21.

Thus, the '920 patent describes “a mobile-device-to-machine payment processing system for processing transactions over a non-persistent network connection.” *Id.* at 5:63–6:2. This system may include a “payment accepting unit” — that is, “equipment that requires payment for the dispensing of products and/or services,” such as a vending machine. *Id.* at 1:51–2:4.

The '920 patent explains that some payment accepting units are capable of accepting cashless payments, such as “credit cards, debit cards, and alternative mobile device payment methods using, for example, smart phones.” *Id.* at 6:46–54. However, “traditional payment accepting units that accept cashless payments . . . require a persistent connection to a network (wired or wireless) to facilitate the cashless payments.” *Id.* Thus, “[i]f the network connection to a traditional machine is temporarily interrupted, cashless payments will be temporarily unavailable” and “[i]f the machine is located in a location where no network connection is available, cashless payments [are] not possible.” *Id.* at 6:60–64. The '920 patent purports to solve this network connectivity problem by having a user’s mobile device serve as an “intermediary” between the payment accepting unit and a network. *Id.* at 5:64–6:2, 6:64–7:12.

At the same time, the '920 patent’s system seeks to minimize or even eliminate user interaction with the mobile device. *See id.* at 6:64–7:3. Thus, a mobile application on the mobile device “automatically connects to the payment accepting unit” via a short range radio communication such as Bluetooth “when the user is within range” of the unit. *Id.* at 7:19–22, 7:45–48, 10:2–15, 14:54–63 (Fig. 5).

Then, if the mobile device is in “manual mode,” the application causes the mobile device to display the user’s “prepaid balance” on the mobile device’s touch screen, which “the user ‘swipes’ to transfer payment to the payment accepting unit” for a product or service selected for purchase by the user.¹ *Id.* at 7:13–33, 19:45–53. This is shown, for example, in Figure 10C of the ’920 patent, reproduced below.

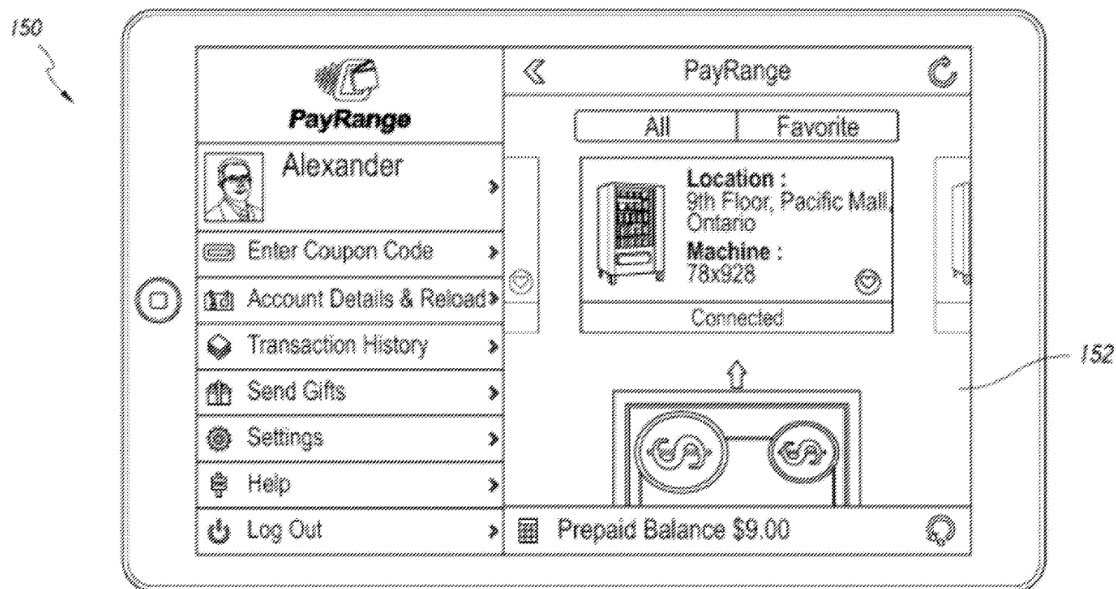


Figure 10C
The ’920 Patent, Figure 10C.

Figure 10C shows mobile device 150 including a user interface (i.e., touch screen 152) controlled by a mobile application implementing the system of the ’920 patent. *See id.* at 4:49–53, 9:18–20, 24:53–55, 36:34–38. The user interface includes “a visual indication of the payment accepting unit 120 (e.g., a picture and/or a payment accepting unit ID of the payment accepting

¹ In a different “hands-free mode,” the application automatically causes the payment accepting unit to display the funds available to the user without requiring the user to interact with the mobile device to transfer payment to the unit. *See Ex. 1001*, 2:25–29, 7:34–60, 16:40–65.

unit 120) for visual confirmation” of a selection by the user. *Id.* at 24:55–59.

Figures 10C and 10D also show:

[T]he user of the mobile device 150 initiates a transaction with the machine 120 (e.g., vending machine 78x928) by performing a swipe gesture at a location corresponding to the representation of the dollar bill (e.g., a substantially vertical swipe gesture from a location corresponding to the representation of the dollar bill to the top edge of the mobile device 150).

Id. at 36:38–45, Figs. 10C–10D.

Figure 26A of the '920 patent, reproduced below, shows touch screen 152 upon successful completion of the purchase transaction initiated in Figure 10C above. *See id.* at 34:18–22, 35:49–55, 36:46–54.

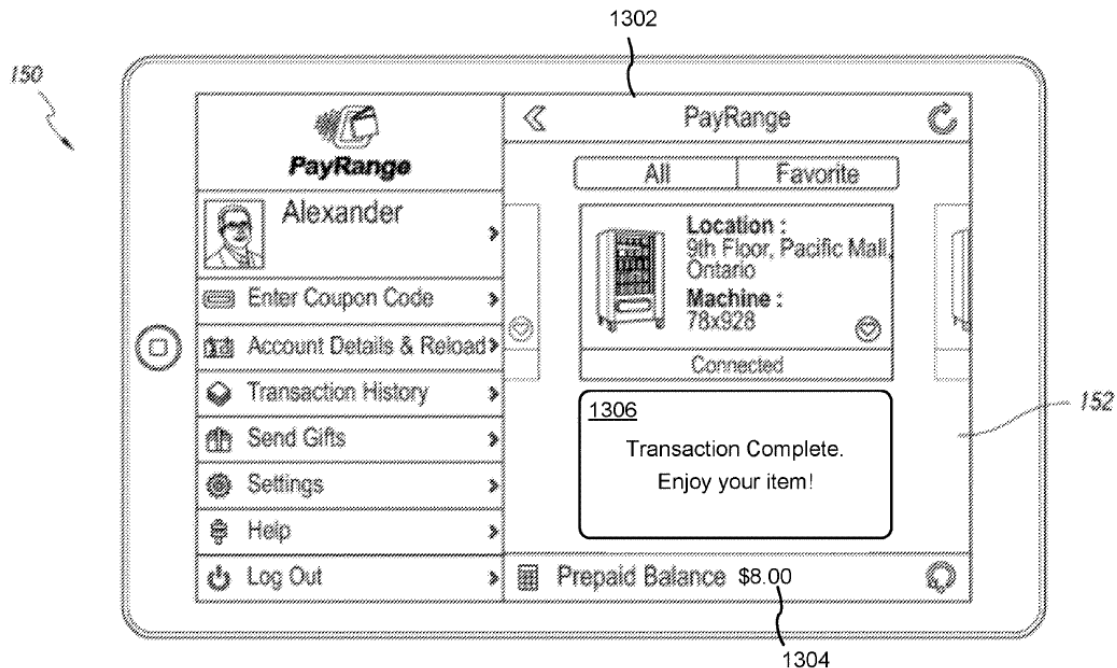


Figure 26A
The '920 Patent, Figure 26A.

Figure 26A shows mobile device 150 including a user interface (i.e., touch screen 152) including message 1306 that the transaction with the payment accepting unit is complete, and message 1304 that the user's prepaid balance has been reduced from \$9.00 in Figure 10C to \$8.00 in Figure 26A as a

result of the transaction. *See id.* at 36:46–57, 38:6–12, 38:53–67.

Figures 26B–26D show other examples of touch screen 152 displays to communicate that the purchase transaction was not completed, and that the user’s prepaid balance was not reduced. *See id.* at 34:22–30, 36:58–37:28, 38:12–18.

C. The ’920 Patent Claims

The ’920 patent has twenty claims, all of which are challenged here. *See* Ex. 1001, 47:5–50:42; Pet. 6.

Claim 1 recites, with Petitioner’s labeling [1.P]–[1.14] added as utilized by both parties (*see* Pet. 14–15; PO Resp. 2 n.1):

1. [1.P] A method of presenting representations of payment accepting unit events, comprising:

[1.1] at a mobile device with one or more processors, memory, one or more output devices including a display, and one or more radio transceivers:

[1.2] identifying one or more payment accepting units that are available to accept payment from a mobile payment application executing on the mobile device, [1.3] the identifying based at least in part on an identifier or location corresponding to the one or more payment accepting units, [1.4] wherein the one or more payment accepting units are payment operated machines that accept payment for dispensing of products and/or services;

[1.5] displaying a user interface of the mobile payment application on the display of the mobile device, [1.6] the user interface being configured to display a visual indication of the one or more payment accepting units and [1.7] accept user input selecting an available payment accepting unit of the one or more payment accepting units;

[1.8] establishing via the one or more radio transceivers a wireless communication path including the mobile device and the available payment accepting unit of the one or more payment accepting units;

[1.9] after establishing the wireless communication path, enabling user interaction with the user interface of the mobile payment application to complete a transaction with the available payment accepting unit, [1.10] wherein the user interface includes a visual representation of the available payment accepting unit, [1.11] an indication of a balance, and [1.12] an affordance that, in response to a user input, indicates completion of the transaction;

[1.13] exchanging information with the available payment accepting unit via the one or more radio transceivers, in conjunction with the transaction; and

[1.14] after exchanging the information, displaying, on the display, an updated user interface of the mobile payment application to the user of the mobile device.

Ex. 1001, 47:6–47. Claims 2–12 depend from claim 1. *See id.* at 47:48–48:34.

Independent claim 13 recites a mobile device comprising: a radio transceiver; a display; a processor; and a memory storing a program to be executed by the processor and comprising instructions to perform Limitations [1.2]–[1.14] above. *See id.* at 48:35–49:9. Claim 14 depends from claim 13. *See id.* at 49:10–14.

Independent claim 15 recites a non-transitory computer readable storage medium storing a program comprising instructions to be executed by a mobile device processor to perform Limitations [1.2]–[1.14] above. *See*

id. at 49:15–50:10. Claims 16–20 depend from claim 15. *See id.* at 50:11–50:42.

D. Asserted Prior Art References

Petitioner relies on the following four references as prior art against the '920 patent. *See* Pet. 6.

Name	Reference	Exhibit No.
Low	US 10,210,501 B2	1005
Arora	US 9,898,884 B1	1006
Freeny	US 8,958,846 B2	1007
Casey	US 8,255,323 B1	1008

Patent Owner does not dispute that these references are prior art against the '920 patent. *See generally* PO Resp.

E. Asserted Grounds

Petitioner asserts the following three grounds of unpatentability. *See* Pet. 6.

35 U.S.C. §	References / Basis	Claim(s) Challenged
103	Low, Arora, Freeny	1–10, 12–20
103	Low, Arora, Freeny, Casey	11
101	Eligibility	1–20

F. Testimonial Evidence

Petitioner relies on the proffered expert witness testimony of B. Clifford Neuman, Ph.D. (Exhibits 1003 and 2010). Patent Owner relies on the proffered expert witness testimony of Jeffrey Miller, Ph.D. (Exhibits 1032 and 2008).

III. POST-GRANT REVIEW TIMELINESS AND ELIGIBILITY

A. Timeliness of the Petition

A petition for post-grant review of a patent “may only be filed not later than the date that is 9 months after the date of the grant of the patent.” 35 U.S.C. § 321(c). The ’920 patent issued on April 23, 2024. *See* Ex. 1001, code (45). The Petition’s filing on January 17, 2025 (*see* Paper 5) therefore was timely. *See* Pet. 101.

B. Post-Grant Review Eligibility of the ’920 Patent

The post-grant review provisions of 35 U.S.C. §§ 321–329 apply only to patents subject to the first-inventor-to-file provisions of the Leahy-Smith America Invents Act² (“the AIA”). *See* AIA § 6(f)(2)(A) (“The amendments made by subsection (d) [enacting 35 U.S.C. §§ 321–329] . . . shall apply only to patents described in section 3(n)(1).”). The first-inventor-to-file provisions of the AIA apply to any patent issuing from an application that contains or contained at any time a claim to a claimed invention that has an “effective filing date” on or after March 16, 2013. *See id.* § 3(n)(1).

The earliest possible effective filing date of the ’920 patent is December 18, 2013. *See* 35 U.S.C. § 100(i)(1) (defining the term “effective

² Pub. L. No. 112-29, 125 Stat. 284 (2011).

filing date”); Ex. 1001, codes (60) and (63). That date is after March 16, 2013, so the ’920 patent is eligible for post-grant review.

IV. PETITIONER’S GROUNDS OF UNPATENTABILITY

A. *Legal Standards — Petitioner’s Burden*

To prevail in its challenge to the patentability of claims 1–20 of the ’920 patent, Petitioner must demonstrate that the claims are unpatentable by a preponderance of the evidence. 35 U.S.C. § 326(e). In a post-grant review, “the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (discussing 35 U.S.C. § 312(a)(3), which is identical to 35 U.S.C. § 322(a)(3) in requiring petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”). This burden of persuasion never shifts to the patent owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

B. *Level of Ordinary Skill in the Art*

Petitioner contends a person having ordinary skill in the art pertaining to the ’920 patent “would have had an educational background of, or practical experience equivalent to, a bachelor’s degree in electrical engineering, computer engineering, computer science, or equivalent training, and approximately three years of experience with electronic payment systems, vending machine technologies, or distributed network systems.” Pet. 20; Ex. 1003 ¶¶ 20–26. Further: “Lack of work experience can be remedied by additional education, and vice versa.” Pet. 20; Ex. 1003 ¶ 22.

“Patent Owner applies the level of ordinary skill in the art provided in the [P]etition.” PO Resp. 6 (citing Pet. 20); Ex. 2008 ¶¶ 35–36.

We adopt Petitioner’s unopposed assessment of ordinary skill, as it appears to be consistent with the ’920 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. *Claim Construction*

We interpret the ’920 patent claims “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.200(b). This “includ[es] construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” *Id.*

We construe the “affordance” limitation of the ’920 patent claims below in relation to Petitioner’s obviousness challenges. Otherwise, we determine no explicit construction is needed to resolve the parties’ controversies concerning Petitioner’s unpatentability challenges. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

D. *Obviousness over Low, Arora, and Freeny* *(Claims 1–10 and 12–20)*

Petitioner asserts claims 1–10 and 12–20 of the ’920 patent are unpatentable under 35 U.S.C. § 103 as obvious over Low, Arora, and Freeny. *See* Pet. 6, 17–19, 21–68. Patent Owner disagrees. *See* PO

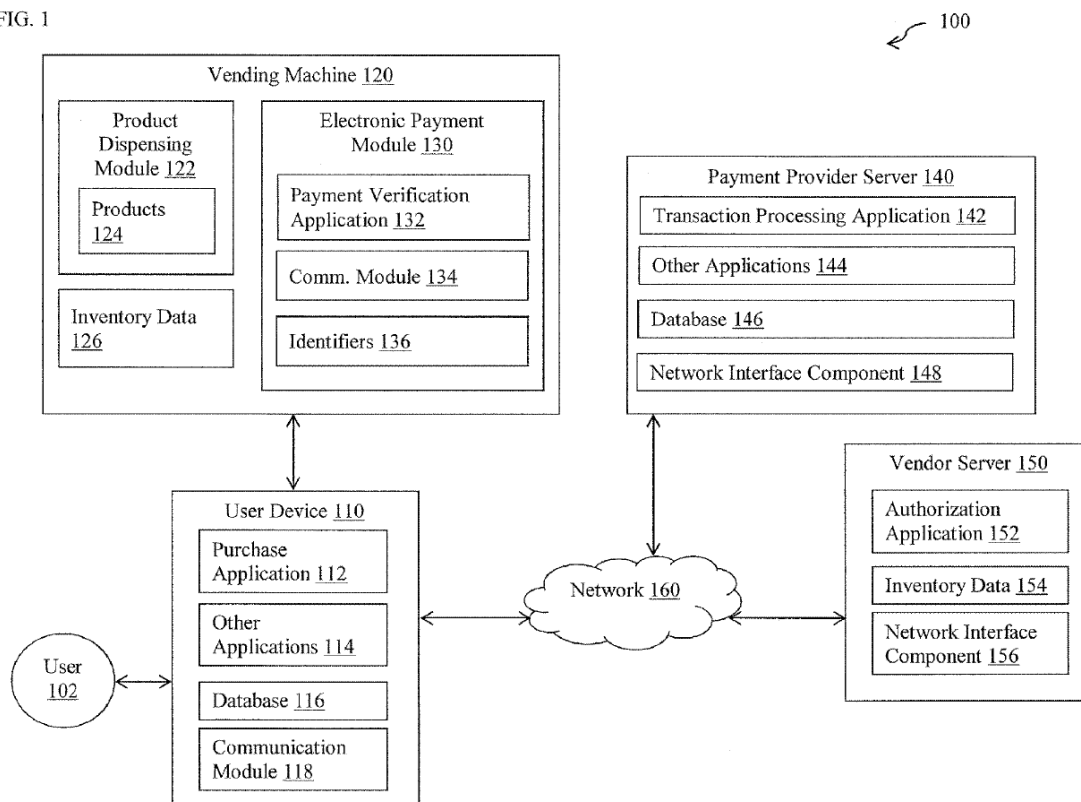
Resp. 1–5, 6–50. We conclude Petitioner has not demonstrated the unpatentability of any claim in this ground, as follows.

1. Low

Low is titled “Electronic Payments to Non-Internet Connected Devices Systems and Methods.” Ex. 1005, code (54).

Low describes how a user device such as a smart phone may be utilized to make wireless electronic payments for purchases at a non-Internet connected machine (“NICM”) such as a vending machine. *See id.* at code (57), 1:15–19, 2:11–20. Figure 1 of Low is reproduced below.

FIG. 1



Low, Figure 1.

Figure 1 is a block diagram of Low’s networked system 100. *Id.* at 1:52–54, 2:63–3:2. System 100 includes user device 110 in wireless communication with vending machine 120 (i.e., a NICM), and also in communication with

payment provider server 140 through network 160 such as the Internet. *Id.* at 2:11–16, 3:18–25, 4:57–64, 8:48–52. User device 110 has purchase application 112 providing an interface that permits user 102 to select, purchase, and dispense products for sale at vending machine 120. *Id.* at 3:49–51, 3:57–63.

Figure 3 of Low is a flowchart illustrating an exemplary method 300 for user device 110 to make an electronic payment to vending machine 120. *See id.* at 1:59–61, 10:1–5, Fig. 3. In step 302, user device 110 wirelessly connects to vending machine 120 to receive information about items for sale from vending machine 120. *See id.* at 10:5–17, 11:36–43.

In step 304, user 102 utilizes user device 110 and/or vending machine 120 to select a product to be purchased from vending machine 120. *See id.* at 10:18–34 (“For example, user 102 may utilize user device 110 to view and select a product[.]”), 11:43–55. A purchase request is generated, including: the machine identifier of vending machine 120; the product to be purchased; the purchase price of the product; and a funding source for the purchase. *See id.* at 2:38–46, 10:18–40.

In step 306, user device 110 transmits the purchase request to payment provider server 140 for approval. *See id.* at 10:41–44, 11:56–63. In one embodiment: “The user device [110] displays the purchase request and, if the information is correct, the user [102] selects a payment button or option on the user device [110], which communicates the payment request to a payment provider [140].” *Id.* at 2:46–49.

Payment provider server 140 processes the purchase request and, if it is approved, in step 308 the server transmits an approval message to user device 110 including a payment authorization. *See id.* at 2:49–56, 10:44–57,

11:64–12:8. User device 110 utilizes the payment authorization to cause vending machine 120 to dispense the purchased product. *See id.* at 10:57–61, 12:9–12.

“In some embodiments, database 146 [at payment provider server 140] may include cross-promotional products and/or preferences for use in upselling products, for example, displaying a message to user 102 after purchasing a drink such as, ‘Would you like chips with your drink.’” *Id.* at 7:35–39.

2. Claim 1

Claim 1 of the ’920 patent recites “enabling user interaction with the user interface of the mobile payment application to complete a transaction with the available payment accepting unit, wherein *the user interface includes . . . an affordance that, in response to a user input, indicates completion of the transaction*” (“the Affordance Limitation”). Ex. 1001, 47:33–41 (emphasis added).

Petitioner initially argues “the Board need not construe any claim terms to resolve the parties’ disputes, and the claims should be given their ordinary and customary meaning.” Pet. 20; *see also* Ex. 1003 ¶¶ 62–63 (Dr. Neuman testifying “I do not believe any claim terms require explicit construction”).

However, Petitioner then posits two potential alternative claim constructions for the Affordance Limitation: (1) it might be “satisfied by a user interface such as a ‘Pay’ button” that is pressed by the user on the user interface to initiate a payment request; or (2) it might “requir[e] an affordance that, in response to a user input, indicates *completion* of the

transaction,” rather than “*initiation* of the transaction.” Pet. 46–47; Ex. 1003 ¶¶ 144–150. According to Petitioner, Low teaches the Affordance Limitation under either alternative without recourse to Arora or Freeny. See Pet. 38–47 (addressing the “user interaction” and “user interface” Limitations [1.9]–[1.12]); Ex. 1003 ¶¶ 144–150.

We consider Petitioner’s two alternative claim constructions, and their respective application to Low, in turn.

(a) “*Affordance*” as a *Payment Button* in Low

Petitioner posits that the Board might interpret the Affordance Limitation “as being satisfied by a user interface such as a ‘Pay’ button, consistent with Patent Owner’s infringement contentions in” the Related District Court Litigation. Pet. 46 & n.3 (citing Ex. 1017, 10); Ex. 1003 ¶ 144. In that event, Petitioner asserts and Dr. Neuman testifies that Low teaches the Affordance Limitation by disclosing that user 102 “selects a payment button or option on the user device [110],” which communicates the user’s payment request to payment provider server 140 for approval to complete a transaction with vending machine 120. Pet. 46–47 (citing Ex. 1005, 2:46–62); Ex. 1003 ¶¶ 145–146.

Patent Owner responds that Petitioner “appl[ies] an interpretation that Petitioner concedes is inconsistent with the plain language of the [Affordance Limitation],” because it is undisputed that Low’s user 102 selects the “payment button” displayed on user device 110 to indicate *initiation* not *completion* of a transaction. PO Resp. 25 (citing Ex. 1003 ¶¶ 144–147); see *id.* at 26–28, 32–33 (citing Pet. 20, 46–47; Ex. 1005, 2:46–62; Ex. 2010, 129:16–131:8); Ex. 2008 ¶¶ 64–66, 72–73. In particular,

Patent Owner asserts “Petitioner’s first theory is solely based on its characterization of Patent Owner’s infringement contentions [in the Related District Court Litigation], which Petitioner interprets to mean requiring that an affordance indicates ‘initiation’ of the transaction,” thereby failing to satisfy Petitioner’s burden to identify “[h]ow the challenged claim is to be construed” per 37 C.F.R. § 42.204(b)(3). PO Resp. 27–28.

Petitioner replies by reiterating that Patent Owner’s infringement contentions in the Related District Court Litigation “point[] to the same ‘Pay’ button in Petitioner’s system as indicating both *initiation* and *completion* of the transaction.” Pet. Reply 1–2, 5, 10 (citing Ex. 1017, 10). Petitioner further asserts that, if we agree with Patent Owner’s contention that the ’920 patent’s swiping dollar bill interface is an affordance that indicates both *initiation* and *completion* of a transaction, then the same must be true of Low’s payment button interface. *See id.* at 10 (Section (d) Title); *id.* at 12 (“Low’s ‘payment button or option’ is functionally identical to the element Patent Owner identifies as satisfying Limitation [1.12] in the ’920 Patent (the dollar bill).”).

Patent Owner replies by reiterating that Petitioner’s reliance on Low’s payment button as satisfying the Affordance Limitation rewrites the claim language “to recite *an affordance that, in response to user input, indicates initiation of the transaction*” rather than “completion.” PO Sur-reply 9–10.

Patent Owner further asserts Petitioner’s attempt to equate the ’920 patent’s swiping dollar bill interface with Low’s payment button interface “is logically flawed because it presumes that all payment buttons provide the same functionality.” *Id.* at 11–12. According to Patent Owner, “the ’920 patent describes the dollar bill affordance as ‘perform[ing] the

transaction’ where ‘the user “swipes” to transfer payment to the payment accepting unit 120,’ ‘just as if cash was inserted in the machine.’” *Id.* at 12 (citing Ex. 1001, 7:13–33, 36:34–45). Thus, Patent Owner’s view is that the ’920 patent’s swipe-to-pay feature indicates *completion* of a transaction, because “[t]he specification explains that this element (*e.g.*, a dollar bill representation) allows a user ‘**to perform** an electronic transaction with the machine 120’ by interacting with the element through a sliding motion across the mobile device.” *Id.* at 8–9, 11–12. Low, on the other hand, allegedly “describes that when the user selects its payment button, a payment request is communicated to the payment provider server, which then must approve the request.” *Id.* at 12 (citing PO Resp. 32–33).

We conclude Petitioner has not established, by a preponderance of the evidence, that Low’s payment button interface is “an affordance that, in response to a user input, indicates completion of the transaction” per the Affordance Limitation of claim 1, for two reasons.

First, Low’s description of the payment button interface is sparse: “The user device displays the purchase request and, if the information is correct, *the user selects a payment button or option on the user device*, which communicates the payment request to a payment provider” for processing. Ex. 1005, 2:46–56. Petitioner does not explain how Low’s payment button interface “in response to a user input, indicate[s] completion of the transaction” as claimed. *See* Pet. 46–47.

To be sure, the claimed “user input” could correspond to a user’s “select[ion]” of a payment button on Low’s user device 110. Ex. 1005, 2:46–49, 12:26–48 (Fig. 5 illustrates user device 500/110 including input/output component 504 to process user actions such as “selecting one or

more buttons or links”). However, Low is entirely silent as to how the payment button interface might change in response to the user’s selection of the payment button, or even if it changes at all. *See id.* Thus, we conclude Low does not disclose that its payment button interface is an *affordance* that *indicates* completion of the transaction in response to the user’s selection, as is required by the Affordance Limitation.

That deficiency remains even if, as Petitioner’s first theory posits, the communication of a payment request to the payment provider that results from the user’s selection of Low’s payment button is a *completion* of the transaction. The Affordance Limitation requires something else — it requires that *the affordance indicates* completion of the transaction in response to the user input. Low’s sparse description of its payment button interface does not satisfy that claim requirement.

Second, we also agree with Patent Owner’s position that the user’s selection of Low’s payment button is not an affordance that *indicates completion* of Low’s transaction. Invocation of Low’s payment button on user device 110 merely sends a payment request to payment provider server 140. *See* Ex. 1005, 2:46–49. Petitioner does not explain how sending a payment request provides an indication of the completion of the transaction at the payment button.

We are not persuaded by Petitioner’s contention that we should interpret the Affordance Limitation to be satisfied by selecting a payment button which merely communicates a user’s payment request to a remote server. *See* Pet. 46–47. The only evidentiary support Petitioner proffers is Exhibit 1017 (page 10), which is a claim infringement chart for the ’920 patent submitted by Patent Owner in the Related District Court

Litigation.³ Ex. 1017, 10; *see* Pet. xii. Petitioner proffers no intrinsic evidence that might support this claim construction. *See* Pet. 46–47; Pet. Reply 1–2, 5–12. Therefore, we see no persuasive reason to adopt this claim construction here, where it is Petitioner’s burden to support its unpatentability contentions with an appropriate claim construction. Indeed, Petitioner’s counsel at oral argument stated: “[W]e don’t believe this is correct. We don’t believe that an element that informs a user that the transaction will be performed that is future tense, that can simultaneously indicate completion of a transaction.” Tr. 23:15–24.

Moreover, it is not clear from our IPR record exactly what Patent Owner contends in the Related District Court Litigation when seeking to establish Petitioner’s “Speed Queen app” and “Huebsch app” satisfy the Affordance Limitation. *See* Ex. 1017, 10. Patent Owner asserts those apps both utilize “an affordance (the ‘Pay’ button)” which provides “a user option to ‘Pay’ that indicates the initiation of the transaction.” *Id.* However, it is not clear whether the pay button in Petitioner’s apps might be similar to Low by merely communicating a user’s payment request to a remote server and providing no responsive indication. *See id.* And, Patent Owner has argued in this IPR proceeding that a user’s invocation of Low’s payment button does not result in a payment button that indicates completion of a transaction

³ Exhibit 1017 is stamped “**CONFIDENTIAL**” but Petitioner filed it as “Public” in P-TACTS without moving to place it under seal. *See, e.g.*, 37 C.F.R. §§ 42.54–55; PTAB Consolidated Trial Practice Guide § I.E.1 (“[A] document or thing will be made publicly available, unless a party files a motion to seal that is then granted by the Board.”) (available at www.uspto.gov/patents/ptab/trial-practice-guide#step3). Thus, whatever Exhibit 1017’s confidentiality might be in other contexts, it is not confidential for purposes of our present Decision.

(see PO Resp. 24–25, 26–28, 32–33), with which we agree as discussed above.

We also are not persuaded by Petitioner’s suggestion that Patent Owner’s arguments concerning the ’920 patent’s swiping dollar bill interface in this IPR proceeding support a finding that Low’s payment button satisfies the Affordance Limitation. Petitioner does not cite any intrinsic evidence that a user’s invocation of the ’920 patent’s swiping dollar bill interface might be similar to Low by merely communicating a user’s payment request to a remote server. See Pet. Reply 9, 10–12 (citing Ex. 1001, Figs. 10C–10D, 7:22–31, 36:38–45). The disclosures cited by Petitioner reflect that invocation of the sliding dollar bill transfers a payment from the mobile device to the payment accepting unit utilizing a “prepaid balance.” Ex. 1001, 7:22–32. As a result, Petitioner has not established any applicability of the ’920 patent’s swiping dollar bill interface to our findings here concerning Low’s payment button providing an indication.

For the foregoing reasons, we conclude Petitioner’s reliance on Low’s payment button as satisfying the Affordance Limitation fails because it is not supported by Low’s disclosure.

(b) “Affordance” as a Message in Low

Petitioner next posits that the Board might interpret the Affordance Limitation “as requiring an affordance that, in response to a user input, indicates *completion* of the transaction — as opposed to how Patent Owner is applying it in the district court litigation, as indicating *initiation* of the transaction.” Pet. 47; Ex. 1003 ¶ 147. In that event, Petitioner asserts and Dr. Neuman testifies that Low teaches the Affordance Limitation by

disclosing that user device 110 “display[s] a message to user 102 *after purchasing a drink* such as, ‘Would you like chips with your drink’” to attempt to upsell the user, thereby providing an “an affordance (e.g., message displayed to user) that, in response to a user input (e.g., ‘the user selects a payment button’), indicates completion of the transaction.” Pet. 47 (citing Ex. 1005, 2:46–49, 7:34–39); Ex. 1003 ¶¶ 148–150.

Patent Owner responds that a person of ordinary skill in the art “would have understood the plain and ordinary meaning of the term *affordance* to be an interactive user interface element that informs a user how to interact with the element and its intended use.” PO Resp. 7–8, 10–11; Ex. 2008 ¶¶ 39–51. This is supported, according to Patent Owner, by the ’920 patent specification’s description of a user aborting a transaction “by selection [of] an abort affordance on the interface of the application 140 (not shown [in the Figures]).” PO Resp. 11–12 (citing Ex. 1001, 37:8–16, 38:44–52); Ex. 2008 ¶ 43. Patent Owner also relies on the ’920 patent’s illustration in Figures 10C–10D of “a ‘swipe-to-pay’ feature,” which “refers to a user’s action implemented on his/her mobile device 150 where he/she quickly brushes his/her finger (or other pre-determined interaction) on the mobile device’s touch screen 152’ to transfer payment to the payment accepting unit.” PO Resp. 12–14 (citing Ex. 1001, 7:13–30, 36:34–45; Ex. 1003 ¶ 317; Ex. 2010, 83:18–84:11); Ex. 2008 ¶ 46. Patent Owner asserts dependent claim 11 reflects this plain and ordinary meaning by specifying that “*the user input is a swipe that causes the affordance to be slid.*” PO Resp. 12; Ex. 2008 ¶ 44.

Patent Owner also argues a person of ordinary skill in the art would have understood “an *affordance* did not extend to messages.” PO Resp. 11;

Ex. 2008 ¶¶ 39–42, 47–48. This is supported, according to Patent Owner, by the '920 patent specification's distinguishing between an affordance element and other elements "that provide only an output informing the user an operation has been performed (*e.g.*, a message that the transaction has been aborted)." PO Resp. 11–12, 14–16 (citing Ex. 1001, Figs. 26A and 26C, 36:46–57, 37:4–16, 38:44–52); Ex. 2008 ¶¶ 47–48.

Patent Owner further relies on extrinsic technical literature as supporting its foregoing claim constructions. *See* PO Resp. 16–17 (citing Ex. 2011, 64–66; Ex. 2012, 53; Ex. 2013, 1248–49); Ex. 2008 ¶¶ 49–50.

Patent Owner moreover attacks the credibility of Dr. Neuman's testimony that an "affordance" can be a message. *See* PO Resp. 6–10, 25–26. Patent Owner urges us to give this testimony "little or no weight" per 37 C.F.R. § 42.65(a), because it is unsupported by evidence in the record and it relies on an extrinsic source that Dr. Neuman looked up to understand the term "affordance" but was unable to identify under cross-examination. *See id.* at 7–10 (citing Ex. 1003 ¶¶ 62–63; Ex. 2010, 49:9–51:23).

Thus, Patent Owner concludes Low's message attempting to upsell a user after completion of an initial transaction cannot satisfy the Affordance Limitation for two reasons. *See id.* at 33–35 (citing Ex. 1005, 7:34–39). First, Low's message is not an "affordance" per the term's plain and ordinary meaning of an interactive user interface element that informs a user how to interact with the element and its intended use. *See id.* at 34; Ex. 2008 ¶¶ 64, 74–75. Second, the '920 patent specification expressly distinguishes between an "affordance" and a "message." PO Resp. 34; Ex. 2008 ¶ 75.

Petitioner replies that the Affordance Limitation expressly requires that the "affordance" indicates *completion* of the transaction, and the only

disclosure in the '920 patent of a user interface element that indicates completion of a transaction is a message. *See* Pet. Reply 6–8 (citing Ex. 1001, Fig. 26A, 34:19–22, 35:50–53, 36:54–57, 38:9–12, 38:55–58; Ex. 1003 ¶¶ 148, 150). According to Petitioner, Patent Owner’s proffered claim construction “ignore[s] this important context and focuse[s] on the term ‘affordance,’ standing alone” by relying “more on extrinsic, dictionary evidence than the claims and the specification.” *Id.* at 6 (citing Ex. 2008 ¶ 39; Ex. 1032, 11:23–12:4). Petitioner urges us to reject Patent Owner’s arguments because “claim constructions that would exclude a preferred embodiment are ‘rarely, if ever, correct’” (*id.* at 8 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583–84 (Fed. Cir. 1996))), and “it would render [c]laim 1 invalid under 35 U.S.C. § 112” (*id.* at 10).

Petitioner also argues that the '920 patent specification’s only express usage of the term “affordance” is in the context of *aborting* a transaction rather than *completing* a transaction, so this usage is unrelated to the Affordance Limitation. *See* Pet. Reply 9–10 (citing Ex. 1001, 37:10–12, 38:50–52). Further according to Petitioner, “there is no indication that the ‘abort affordance’ would necessarily be interactive, further undercutting Patent Owner’s proposed construction.” *Id.*

Petitioner moreover asserts the '920 patent’s swipe-to-pay feature is not identified as an “affordance” in the specification, and in any event it *initiates* a transaction rather than *completes* a transaction, so it likewise is unrelated to the Affordance Limitation. *See id.* at 9 (citing Ex. 1001, Figs. 10C–10D, 7:22–31, 36:38–45).

Petitioner finally argues Dr. Neuman’s testimony satisfies 37 C.F.R. § 42.65(a) “and actually consider[s] the most important evidence for

purposes of claim construction” (the claims and specification), “despite Patent Owner’s persistent attacks on a one-off sentence from Dr. Neuman’s deposition.” *Id.* at 5, 6 (citing Ex. 1003 ¶¶ 148, 150; Ex. 2010, 49).

Patent Owner replies that Petitioner does not “dispute the evidence showing that *affordance* had an accepted meaning” and Petitioner “effectively read[s] the term *affordance* out of the claim.” PO Sur-reply 5; *see id.* at 6–8 (supporting argument).

Patent Owner responds to Petitioner’s argument “that *affordance* cannot have its plain and ordinary meaning because it ‘would exclude the only embodiment’” in the ’920 patent specification of a message that indicates completion of a transaction, by maintaining that the ’920 patent’s “swipe-to-pay” feature *also* indicates completion of a transaction as already discussed above. *Id.* at 8–9 (citing Pet. Reply 7, 9), 11–12.

Patent Owner responds to Petitioner’s assertion that “[t]here is no indication [in the ’920 patent specification] that the ‘abort affordance’ would necessarily be interactive” (Pet. Reply 9–10) by maintaining that “the specification clearly describes it as such.” PO Sur-reply 6 n.3 (citing Ex. 1001, 37:9–12; Ex. 2008 ¶ 43).

We agree with Patent Owner’s claim construction of the term “affordance” in so far as the plain and ordinary meaning of that term refers to an “interactive user interface element” which does not include a mere message displayed to the user. *See* PO Resp. 10–11. As discussed below, this claim construction is sufficient to resolve the parties’ dispute over whether Petitioner has demonstrated claim 1 is unpatentable as having been obvious over Low, Arora, and Freeny. Therefore, we need not, and we do not, decide whether the remainder of Patent Owner’s construction (that the

affordance element also must “inform[] a user how to interact with the element and the element’s intended use”) has merit. *See Realtime Data*, 912 F.3d at 1375; Tr. 33:18–23, 34:11–35:3, 55:15–56:15.

We start with the claim language. The Affordance Limitation recites “an *affordance* that, *in response to a user input*, indicates completion of the transaction.” Ex. 1001, 47:39–41 (emphasis added). That is, the claim language itself reflects that the “affordance” responds to a user input, supporting Patent Owner’s contention that the affordance is interactive with the user.

Petitioner’s broad claim construction of the term “affordance” overlooks the close association between the affordance and the user input as recited in the claim. Petitioner correctly points out that the ’920 patent specification contemplates, in some embodiments, that the user may utilize vending machine 120 (rather than mobile device 150) to select a product to be purchased. *See* Ex. 1001, 33:15–34:22; Pet. Reply 8; Tr. 20:5–21:26. However, Petitioner concedes that in other embodiments this user input could be done on mobile device 150. *See* Tr. 21:9. We conclude that the overall context of Limitations [1.9]–[1.12] (Ex. 1001, 47:33–41) limits claim 1 to require the “user input” to be received via the “user interface” of the mobile device that is being described in those Limitations. Moreover, claim 1 more broadly is directed to the various steps being performed “at [the] mobile device” per Limitation [1.1] (*id.* at 47:8–10).

Turning to the ’920 patent specification, it is undisputed that it utilizes the term “affordance” only in relation to aborting a transaction, rather than completing a transaction as recited in the Affordance Limitation. *See* Ex. 1001, 37:9–12 (“[T]he user aborts the transaction by selection [of] an

abort affordance on the interface of the application 140 (not shown [in the Figures]).”), 38:50–52 (same). Nonetheless, as with the claim language discussed above, the ’920 patent specification reflects that the “affordance” responds to a user input, in describing that the user “select[s]” the affordance on user interface 1320 of mobile device 150 to abort the transaction. *Id.* at 37:4–16 (Fig. 26C), 38:44–52 (same). This supports Patent Owner’s contention that an “affordance” is interactive with the user.

The ’920 patent specification also distinguishes between an “affordance” and a mere “message” displayed to the user, as follows:

FIG. 26C illustrates the mobile device 150 displaying a user interface 1320 of the application 140 on touch screen 152 after the representation of the dollar bill slides onto the touch screen 152 in FIG. 26B due to the transaction being aborted. For example, the user aborts the transaction by actuating a coin return mechanism of the machine 120. In another example, the user aborts the transaction by selection [of] an abort affordance on the interface of the application 140 (not shown [in the Figures]). In FIG. 26C, the user interface 1320 includes a message 1322 indicating that the transaction with the machine 120 was aborted and that the user’s account was not debited for the aborted transaction.

Ex. 1001, 37:4–16. That is, as described in the ’920 patent, the user *firstly* aborts the transaction by selecting an abort affordance on user interface 1320 of mobile device 150, and *then* a message is displayed on user interface 1320 to indicate that the transaction was aborted. This differentiates between an “affordance” instruction and the later “message” that informs the user the instruction was executed.

The ’920 patent specification further provides:

In some implementations, the notification indicates (1412) [in FIG. 27A] abortion of a transaction initiated by the

user of the mobile device. *In FIG. 26C, for example, the user interface 1320 includes the message 1322 indicating that the transaction has been aborted.* For example, the user aborts the transaction by actuating a coin return mechanism of the machine 120. *In another example, the user aborts the transaction by selection [of] an abort affordance on the interface of the application 140 (not shown [in the Figures]).*

Id. at 38:44–52 (emphases added). Once again, this description differentiates between an “affordance” instruction and the later “message” informing the user that the instruction was executed. *See* Tr. 41:24–42:16 (Patent Owner arguing that both an “affordance” and a “message” can indicate completion of a transaction, and Patent Owner claimed an “affordance”), 67:3–19 (Petitioner agreeing with the same, but arguing Patent Owner’s proposed interpretation still lacks support in the specification); *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1373 (Fed. Cir. 2008) (“[T]he mere fact that there is an alternative embodiment disclosed in the [asserted] patent that is not encompassed by district court’s claim construction does not outweigh the language of the claim, especially when the court’s construction is supported by the intrinsic evidence.”).

Based on the foregoing intrinsic evidence considerations, we need not, and we do not, decide the disputed issue of whether the ’920 patent’s illustration in Figures 10C–10D of its manual (swipe-to-pay) mode *indicates completion* of a transaction. In order to resolve the parties’ dispute over applying the Affordance Limitation to Low’s disclosure, it is sufficient to conclude that an “affordance” refers to an interactive user interface element which does not include a mere message displayed to the user, based on the intrinsic evidence discussed above.

Patent Owner's extrinsic technical literature further supports that conclusion. Alan Cooper's book *About Face: The Essentials of User Interface Design* discusses "Manual affordances" and concludes the term "affordance" should be defined as "the perceived . . . properties of the thing, primarily *those fundamental properties that determine just how the thing could possibly be used*" such that "you look at something and understand how to use it — you comprehend its affordances." Ex. 2011, 64–65 (emphasis added) (also: "When things are clearly shaped to fit our hands or feet, we recognize that they are directly manipulable"); see PO Resp. 16; Ex. 2008 ¶¶ 49–50.

Similarly, Wilbert Galitz's book *The Essential Guide to User Interface Design* describes how "[t]he design of a control [in a user interface] should suggest how it is to be operated" which "is often referred to as *affordance*," and "[w]hen the design of an object or control has high affordance, its use being obvious, it is easy for people to know how to interact with it." Ex. 2012, 53; see PO Resp. 16; Ex. 2008 ¶ 50.

And finally, Li-Hao Chen's article *Applicability of Affordance Concept in User-Computer Interaction* states that "a button on a product with round shape and fitting size for user's fingers indicates the pressing operation for users." Ex. 2013, 1248; see PO Resp. 16; Ex. 2008 ¶ 49. Chen also discusses "*Perception of Affordance*" for GUI designs, in which "the shapes and features of virtual icons on product screens as the perceptual information can effectively present products' functions and operations." Ex. 2013, 1248–49; see PO Resp. 16; Ex. 2008 ¶¶ 49–50.

Thus, a common thread in Copper, Galitz, and Chen is that the user interacts with an affordance to use the affordance to control a device,

thereby supporting our conclusion that the plain and ordinary meaning of “affordance” in claim 1 refers to an interactive user interface element.

Petitioner relies on the surrounding context of the “affordance” term in the Affordance Limitation — “an affordance that, in response to a user input, indicates completion of the transaction.” Ex. 1001, 47:39–41. It is undisputed that the ’920 patent specification discloses that a message may be displayed to the user to indicate completion of a transaction. *See id.* at Fig. 26A (user interface 1302 displaying message 1306 “Transaction Complete.”), 34:19–22, 35:50–53, 36:54–57, 38:9–12, 38:55–58. Nonetheless, the ’920 patent never describes a message as an “affordance” (*see, e.g., id.*), and as discussed above the ’920 patent specification distinguishes between an “affordance” and a mere “message” displayed to the user.

Concerning the conflicting expert testimony directed to the meaning of the term “affordance,” we conclude Dr. Miller’s testimony on behalf of Patent Owner is supported by the intrinsic and extrinsic evidence discussed above. *See* Ex. 2008 ¶¶ 39–51, 74–75. On the other hand, Dr. Neuman’s *ipse dixit* testimony on behalf of Petitioner that an “affordance” is satisfied by a message in Low is not supported by the evidence presented here. *See* Ex. 1003 ¶¶ 62–63, 147–150.

Dr. Neuman was asked on cross-examination “What is your understanding of what the term ‘affordance’ means in the context of these claims?” Ex. 2010, 49:9–11. He answered: “It could be some graphical user interface feature that includes maybe a pop-up or a message or something else that is indicating what completion is.” *Id.* at 49:12–50:2. That answer led to the following exchange:

Q. In your view, what is the plain and ordinary meaning of the word “affordance”?

A. So then, I did have to look that one up to look at it, sort of. It’s -- it’s an element of the user interface in some sense.

Q. Where did you look it up when you say you had to look it up?

A. Yeah, I don’t recall where, but, I mean, this was to understand the meaning within particular context, okay? So . . .

Q. Do you remember whether it was, like, a general purpose dictionary or something specific to the computer science field?

A. I don’t recall specifically where that was, but I think it was in the context of user interfaces.

Q. Isn’t -- in the context of user interfaces, does an affordance need to be something that a user can interact with?

. . .

A. I’m not sure if I’d say a user has to be able to interact with it. I think that there are certain user interface elements that are sometimes actually hidden from the user as a way of -- of passing information sort of around the user.

So we’ve got that aspect, and that could perhaps be an affordance. But certainly, when we say “interacts with,” you have two aspects of “interact” as well, and affordance could be both.

It could be something that takes input, such as, for example, a button, a slider, various other things. It can be something that provides output; a pop-up, a table, or a representation of such.

So both of those -- well, you know, we need to define “interact with.”

If I’m providing output to the user, is that interact with? I don’t know. That’s a question of what you mean by your question in this particular case.

But certainly, an affordance can include output-only information. It can include input-only information. In fact, it could include things that do both. And I believe an affordance can be an element that's hidden from the user in some sense.

Id. at 50:3–51:23. This testimony is not persuasive. We agree with Patent Owner that it fails to comply with 37 C.F.R. § 42.65(a) because Dr. Neuman did not identify any evidence to support his extended musings as to the meaning of “affordance,” including not being able to identify the extrinsic source he looked up to understand that meaning.

For the foregoing reasons, we construe the “affordance” term in the Affordance Limitation to refer to an interactive user interface element, which does not include a mere message presented to the user. As a result, we conclude Petitioner’s reliance on Low’s message attempting to upsell a user upon completion of an initial transaction (*see* Ex. 1005, 7:35–39) does not satisfy the Affordance Limitation, because it is a mere message rather than an interactive user interface element.

(c) Conclusion Regarding Claim 1

We conclude both of Petitioner’s theories for how Low might satisfy the Affordance Limitation in claim 1 fail. Also, Petitioner does not rely on either of Arora or Freeny to cure this deficiency in Low. Therefore, Petitioner has not demonstrated claim 1 is unpatentable as having been obvious over Low, Arora, and Freeny.

3. Claims 2–10 and 12–20

The other independent claims of the ’920 patent (claims 13 and 15) recite the same Affordance Limitation as in claim 1 discussed above, and the parties argue all three claims together in this regard. *See* Ex. 1001,

48:62–49:3 (claim 13), 49:40–50:4 (claim 15); Pet. 16 (“Claim 1 is . . . representative of the other independent claims.”); *id.* at 46–47 (arguing Limitation [1.12]), 62 (arguing Limitation [13.15]), 67 (arguing Limitation [15.11]); PO Resp. 35; Pet. Reply 12. Thus, for the reasons provided above in relation to claim 1, we conclude Petitioner has not demonstrated claims 2–10 and 12–20 are unpatentable as having been obvious over Low, Arora, and Freeny.

*E. Obviousness over Low, Arora, Freeny, and Casey
(Claim 11)*

Petitioner asserts claim 11 of the ’920 patent is unpatentable under 35 U.S.C. § 103 as obvious over Low, Arora, Freeny, and Casey. *See* Pet. 6, 17–19, 68–73. Patent Owner disagrees. *See* PO Resp. 50. We conclude Petitioner has not demonstrated the unpatentability of claim 11 in this ground, as follows.

Claim 11 recites: “The method of claim 1, wherein the user input is a swipe that causes the affordance to be slid.” Ex. 1001, 48:27–28.

As with Ground One above, we address Ground Two by separately considering Petitioner’s two alternative theories for how Low teaches the Affordance Limitation of claims 1 and 11.

1. “Affordance” as a Payment Button in Low

Ground Two begins with Petitioner’s assertion that Low “teaches almost every element of” claim 11 as argued in Ground One against claim 1, including that Low’s user device 110 has “an input/output (I/O) component 504 that processes a user action, such as selecting keys from a keypad/keyboard, selecting one or more *buttons or links, etc.*,” and

specifically “the user selects a *payment button or option* on the user device” per Petitioner’s first theory addressing the Affordance Limitation. Pet. 68–69 (citing Pet. § VII.A.2; Ex. 1005, 2:46–49, 12:39–46 (Fig. 5)); Ex. 1003 ¶ 270. Petitioner concedes Low’s payment button interface is not “a swipe that causes the affordance to be slid” per claim 11. *See* Pet. 69; Ex. 1003 ¶ 271. Petitioner then argues a person of ordinary skill in the art would have been motivated to replace Low’s payment button interface with Casey’s slide bar interface which is utilized to confirm or decline payment. *See* Pet. 69–73 (citing Ex. 1005, 3:57–50; Ex. 1008, Figs. 5–6, 13:44–51); Ex. 1003 ¶¶ 272–286.

Patent Owner responds that Petitioner’s reliance on Casey in Ground Two does not cure the deficiencies of Low in relation to the Affordance Limitation in Ground One. *See* PO Resp. 50; Ex. 2008 ¶ 123.

Petitioner replies that “regardless of how ‘affordance’ is construed, a [person of ordinary skill in the art] would understand that *Casey* and its teachings of a sliding GUI element could be applied to the teachings of *Low* to render Claim 11 obvious.” Pet. Reply 18.

We conclude Petitioner’s Ground Two suffers from the “second” deficiency articulated above in Ground One. That is, even if Low’s payment button interface is replaced with Casey’s payment slide bar interface, the user’s invocation of the interface still fails to “indicate[] completion” of Low’s transaction (as required by the Affordance Limitation) because it merely sends a payment request to payment provider server 140. Ground Two differs from Ground One only in changing the nature of the interface element on the display screen — from a button that is pressed to a slide that is swiped; Petitioner does not propose modifying the underlying

functionality of Low’s user interface that is invoked by the interface element in response to the user input. *See* Pet. 68–73.

Thus, we conclude Petitioner’s replacement of Low’s payment button with Casey’s slide bar does not satisfy the Affordance Limitation of claim 11, for the “second” reason set forth above in Section IV.D.2(a) in relation to claim 1.

2. “Affordance” as a Message in Low

As noted above, Ground Two begins by relying on Low’s payment button interface per Petitioner’s first theory addressing the Affordance Limitation of claims 1 and 11. *See* Pet. 68–69. Ground Two does not posit that a person of ordinary skill in the art would have been motivated to replace Low’s message element, per Petitioner’s second theory addressing the Affordance Limitation, with Casey’s slide bar interface element. *See id.* at 68–73. Instead, Ground Two is rooted in the common *user input* usage of Low’s payment button and Casey’s payment slide bar, as opposed to the *user notification* usage of Low’s message. *See, e.g., id.* at 69–71.

Patent Owner argues Petitioner’s reliance on Casey in Ground Two does not cure the deficiencies of Low in relation to the Affordance Limitation in Ground One. *See* PO Resp. 50; Ex. 2008 ¶ 123.

Petitioner replies that “Patent Owner fails . . . to address Petitioner’s alternative interpretation of Limitation [1.12] that the affordance indicates completion of the transaction.” Pet. Reply 17–18. Further according to Petitioner, “regardless of how ‘affordance is construed, a [person of ordinary skill in the art] would understand that *Casey* and its teachings of a sliding

GUI element could be applied to the teachings of *Low* to render Claim 11 obvious.” *Id.* at 18.

We agree with Patent Owner. In particular, even if Low’s payment button interface is replaced with Casey’s payment slide bar interface, Low’s message attempting to upsell a user upon completion of an initial transaction does not satisfy the Affordance Limitation, because it is a mere message rather than an interactive user interface element.

Thus, we conclude Petitioner’s reliance on Low’s message as satisfying the Affordance Limitation of claim 11 fails for the reasons set forth above in Section IV.D.2(b) in relation to claim 1.

*F. Statutory Subject Matter Eligibility
(Claims 1–20)*

Petitioner asserts claims 1–20 of the ’920 patent are unpatentable under 35 U.S.C. § 101 as lacking statutory subject matter. *See* Pet. 6, 74–93. Patent Owner disagrees. *See* PO Resp. 5–6, 51–79. We conclude Petitioner has demonstrated the unpatentability of claims 1–6 and 8–20, but not claim 7, in this ground as follows.

1. Legal Standards — Statutory Subject Matter

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

In determining statutory eligibility under § 101, we are guided by the Supreme Court’s two-step framework described in *Alice* and *Mayo*. *Id.* 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 id.* at 219; *Bilski v. Kappos*, 561 U.S. 593, 611 (2010). If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* 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).

The USPTO has published binding guidance for applying § 101, which has been clarified over time and embodied in MPEP § 2104(III) & § 2106 (9th Ed., Rev. 01.2024 (Nov. 2024)) (“Guidance”). The Guidance divides the first step of the *Alice* framework into two prongs, identified as Step 2A, Prong One and Step 2A, Prong Two. *See id.* § 2106.04. In Prong One, we look to whether the claim recites — that is, sets forth or describes — certain groupings of abstract ideas, including certain methods of organizing human activity (e.g., fundamental economic practices) and mental processes. *See id.* § 2106.04(II)(A)(1) & § 2106.04(a). In Prong Two, we look to whether the claim recites additional elements that integrate the abstract idea into a practical application. *See id.* § 2106.04(II)(A)(2) & § 2106.04(d). Only if a claim recites an abstract idea, and does not integrate that abstract idea into a practical application, do we then conclude that the claim is directed to an abstract idea in Step 2A of the Guidance (first step of *Alice*), and proceed to Step 2B of the Guidance (second step of *Alice*). *See id.* § 2106.04(II)(A).

In the second step of the *Alice* framework, “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); see MPEP § 2106(I) & § 2106.05. “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].’” *Alice*, 573 U.S. at 221 (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

2. Claim 1

Petitioner provides arguments and evidence in support of contending claim 1 is unpatentable as lacking statutory subject matter under 35 U.S.C. § 101. *See* Pet. 74–87. Patent Owner opposes. *See* PO Resp. 51–75. We conclude Petitioner has demonstrated claim 1 is unpatentable in this ground, as follows.

(a) Collateral Estoppel

Petitioner firstly argues Patent Owner is collaterally estopped from arguing claim 1 of the ’920 patent is not unpatentable under 35 U.S.C. § 101. *See* Pet. 74–79. Petitioner asserts claim 1 of the ’920 patent is “materially identical” to claim 1 of the ’614 patent which the Board determined to be unpatentable under 35 U.S.C. § 101 in PGR2021-00093. *See id.* at 75–78 (citing Ex. 1011, a redline comparison of the claims).

Patent Owner’s sole opposition is that claim 1 “recites limitations that raise issues that were not decided by the Board in [PGR2021-00093]”

(PO Resp. 53) so “Petitioner has failed to show that the issue [presented here] is identical to the issue decided in [PGR2021-00093]” (*id.* at 51–52). Patent Owner focuses on two differences between the claims, which we address separately.

(i) *Limitation [1.3] in Both Patents*

Patent Owner cites the following difference in verbiage between Limitation [1.3] in claim 1 of the ’614 patent, and Limitation [1.3] in claim 1 of the ’920 patent, as precluding collateral estoppel:

Claim 1 of the ’614 Patent	Claim 1 of the ’920 Patent
“the identifying [of one or more payment accepting units] <i>including detecting predefined radio messages broadcast by</i> the one or more payment accepting units”	“the identifying [of one or more payment accepting units] <i>based at least in part on an identifier or location corresponding to</i> the one or more payment accepting units”

Ex. 1011, 1 (Limitation [1.3], emphases added)); *see* PO Resp. 53–55.

Petitioner argues Limitation [1.3] in the ’920 patent is “broader” than Limitation [1.3] in the ’614 patent, because the ’920 patent “allows the identifying to be based on any generic ‘identifier or location,’ whereas the ’614 [p]atent required that the identifying be based on the narrower ‘detecting predefined radio messages.’” Pet. 77. Therefore, according to Petitioner, the Board’s findings in PGR2021-00093 “apply equally” here. *Id.* (citing *Google LLC v. Hammond Dev. Int’l, Inc.*, 54 F.4th 1377, 1381 (Fed. Cir. 2022); *IronSource Ltd. v. Digital Turbine Inc.*, PGR2022-00053, Paper 58, at 15–16 (PTAB Mar. 12, 2024) (“*IronSource*”)).

Patent Owner responds that a person of ordinary skill in the art would understand Limitation [1.3] in the ’920 patent to recite “the type of content

(*i.e.*, an identifier or location) that is used to identify a payment accepting unit,” whereas Limitation [1.3] in the ’614 patent recites “a particular communication medium that is detected in order to identify a payment accepting unit (*i.e.*, predefined radio messages).” PO Resp. 54; Ex. 2008 ¶¶ 125–128. Patent Owner also argues the ’920 patent “specification treats these terms as distinct features and even describes the type of content recited in [Limitation [1.3] of the ’920 patent] as narrower than the predefined radio messages recited in [Limitation [1.3]] of the ’614 patent.” PO Resp. 54 (citing Ex. 1001, 11:32–38, 13:41–46, 29:48–59); Ex. 2008 ¶ 128. Patent Owner concludes the Board in PGR2021-00093 did not “decide[] the issue of patent eligibility of claims reciting identification . . . *based on an identifier or location corresponding to the one or more payment accepting unit*,” so collateral estoppel does not apply. PO Resp. 54–55 (citing PGR2021-00093, Paper 38, at 27, 37).

Petitioner replies that Patent Owner’s opposition “focuses on the wrong analysis” because “[t]he question is not whether there are differences between the claims” (which Petitioner concedes there are), or whether there is any “narrowing,” but rather “the relevant question is whether the *issues of patentability* are identical.” Pet. Reply 18–19 (citing *Google*, 54 F.4th at 1381). Petitioner asserts the issues of patentability are identical because the Board in PGR2021-00093 “found that the ‘issue of patentability’ did not extend ‘*beyond the judicial exception*, *i.e.*, the additional elements’” in claim 1 of the ’614 patent, and likewise here “‘Patent Owner’s arguments . . . rest on the alleged novelty of the abstract idea itself’ of an ‘identifier or location,’ which involves the same issue of patentability as the ‘predefined radio message.’” *Id.* at 19 (citing PGR2021-00093, Paper 38, at 37).

Petitioner adds that, during prosecution of the '920 patent, the Examiner rejected claim 1 as an obviousness-type double patenting of claim 1 of the '614 patent on the basis that the claims “‘are not patentably distinct from each other’ and that the only difference between the claims was a ‘labeling difference,’” which the applicant did not dispute and instead overcame with a terminal disclaimer. *Id.* at 20 (citing Ex. 1002, 150, 175–176).

Patent Owner replies that the Board in PGR2021-00093 did “not mention an ‘issue of patentability’ nor does Petitioner identify what the alleged issue is,” and “the Board only opined on the impact of ‘predefined radio messages’ to the § 101 analysis.” PO Sur-reply 20. Patent Owner concludes “Petitioner fails to show that the Board’s findings [in PGR2021-00093] necessarily decide[d] the same issue here.” *Id.*

Patent Owner also asserts Petitioner “misrepresents” the applicability of the '920 patent prosecution history to the collateral estoppel issue raised here. *Id.* at 21. According to Patent Owner, the two issues (§ 103 obviousness and § 101 eligibility) are different. *See id.* (citing MPEP § 804; Ex. 1002, 150, 4039–40).

We conclude that in order for collateral estoppel to apply, Petitioner must show, among other things, “the issue is identical to one decided in the first action.” *Google*, 54 F.4th at 1381. That is, “collateral estoppel requires that the *issues of patentability* be identical,” and “[i]t is well established that patent claims need not be identical for collateral estoppel to apply.” *Id.* “[C]ollateral estoppel may apply even if the patent claims ‘use slightly different language to describe substantially the same invention,’ so long as

‘the differences between the unadjudicated patent claims and adjudicated patent claims do not materially alter the question of invalidity.’” *Id.*

We determine the difference between the two Limitations [1.3] at issue here materially alters the subject matter eligibility of the respective claims. Petitioner’s contrary contention is premised on Limitation [1.3] in the ’920 patent being “broader” than Limitation [1.3] in the ’614 patent. Pet. 77. However, claim 1 of the ’920 patent requires identifying an available payment accepting unit based on an identifier or a location of the unit, whereas claim 1 of the ’614 patent required the identification to be based on predefined radio messages broadcast by the units. This difference presents an apples-to-oranges comparison (a difference in kind), rather than an apples-to-apples comparison (a difference in degree) as Petitioner’s argument would have it.

This difference also represents more than “*slightly different language* to describe substantially the same invention.” *Google*, 54 F.4th at 1381 (emphasis added); *see also id.* at 1381–82 (holding collateral estoppel arose from a previous judgment of obviousness where “[t]he only difference between the claims is the language describing the number of application servers”); *Soverain Software LLC v. Victoria’s Secret Direct Brand Mgmt., LLC*, 778 F.3d 1311, 1319–20 (Fed. Cir. 2015) (holding collateral estoppel arose from a previous judgment of obviousness where “[t]he only additional limitation in [the claim at issue] concern[ed] the Internet” versus “a generic network”).

We moreover agree with Patent Owner that the obviousness-type double patenting rejection overcome during prosecution of the ’920 patent is a different issue from the eligibility issue disputed here. The former is

governed by 35 U.S.C. § 103 and case law such as *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), whereas the latter is governed by 35 U.S.C. § 101 and case law such as *Alice* and *Mayo*. This difference is illustrated by the fact that the ’920 patent was allowed to issue after the applicant filed a terminal disclaimer — that is, the applicant never disputed that the ’920 patent claims were in fact an obviousness-type double patenting of the ’614 patent claims. *See* Ex. 1002, 150 (examiner’s rejection), 175–177 (applicant’s terminal disclaimer), 194 (applicant’s remarks regarding rejection), 4039–41 (examiner’s reasons for allowance). By contrast, the applicant would not have been able to overcome a rejection for lack of statutory subject matter by filing a terminal disclaimer.⁴

We are unaware of any binding authority considering whether the claims of a challenged patent are sufficiently similar to the claims of another patent in the context of 35 U.S.C. § 101 such that an earlier judgment of eligibility (or ineligibility) collaterally estops a party from re-litigating the issue.⁵ *See, e.g.*, Paper 12, at 17 (in the Institution Decision, we encouraged

⁴ Although not cited by either party, the Examiner’s Statement of Reasons for Allowance briefly addressed § 101 eligibility. *See* Ex. 1002, 4039–40 (“The above recited limitations provide meaningful limitations that transforms the abstract idea into patent eligible [sic]. The claims as a whole effect an improvement to another technology or technical field. These limitations in combination provide meaningful limitations beyond generally linking the use of the abstract idea to a practical application.”).

⁵ The *IronSource* decision cited by Petitioner is not binding. More importantly, the result there turned on whether the prior determination was essential to the judgment and whether the party had a full and fair opportunity to litigate the issue in the prior action, not whether the § 101 eligibility issues were identical. *See IronSource*, Paper 58, at 17–20 (noting the petitioner agreed the § 101 arguments were “essentially identical”).

the parties “to address . . . how the collateral estoppel requirement that the issue be ‘identical to one decided in the first action’ applies in the context of an asserted ground under 35 U.S.C. § 101”).

We conclude the eligibility issues presented by claim 1 of the ’920 patent are not “identical” (*Google*, 54 F.4th at 1381) to the eligibility issues presented by claim 1 of the ’614 patent because the difference in Limitation [1.3] is a material technological difference in the context of Step 2A (*Alice* step one) and Step 2B (*Alice* step two). Although we ultimately decide claim 1 of the ’920 patent is ineligible (*see infra* Sections IV.F.2(b)–(f)), the difference in Limitation [1.3] materially affects the eligibility analysis such that the Board’s prior determination in PGR2021-00093 does not collaterally estop Patent Owner from defending claim 1 of the ’920 patent here.

(ii) *Limitations [1.10]–[1.12] in the ’920 Patent*

Patent Owner cites Limitations [1.10]–[1.12] in claim 1 of the ’920 patent, which Petitioner concedes have no analogue in claim 1 of the ’614 patent, as precluding collateral estoppel. *See* PO Resp. 55–58; Ex. 1011, 3 (listing “N/A” in the ’614 patent column for Limitations [1.10]–[1.12] in the ’920 patent); Pet. 77 (conceding the ’920 patent “adds” Limitations [1.10]–[1.12]).

These limitations collectively recite: “wherein the user interface includes a visual representation of the available payment accepting unit, an indication of a balance, and an affordance that, in response to a user input, indicates completion of the transaction.” Ex. 1001, 47:37–41; *see* Pet. 15.

Petitioner argues these limitations “merely describe how the user interacts with the generic user interface to perform the abstract idea and do not integrate the abstract idea into a practical application or recite an inventive concept.” Pet. 77 (citing PGR2021-00093, Paper 38, at 19, 34, 41–43). “For instance,” according to Petitioner, “these limitations do not specify *how* the user interface displays the available payment accepting unit, or the user’s balance, or *how* the user interface accepts input from the user, or even *what* the generic ‘affordance’ is.” *Id.* at 77–78. Petitioner therefore concludes “these limitations do not materially alter the question of patentability and collateral estoppel should still apply.” *Id.* at 78 (citing *Soverain*, 778 F.3d at 1319).

Patent Owner responds that “the Board in [PGR2021-00093] never addressed [Limitations [1.10]–[1.12]]” so “it cannot be said that ‘the issue necessarily decided in the previous proceeding is identical to’ the issue of patent eligibility involved here.” PO Resp. 55–56. Indeed, Patent Owner analogizes Limitations [1.10]–[1.12] in the ’920 patent to claim 11 of the ’614 patent, which survived the eligibility challenge in PGR2021-00093. *See id.* at 56 (citing Ex. 1011, 7 n.1; Pet. 75). Patent Owner particularly argues “the Board [in this case] must first reach a determination as to the claim construction of the term *affordance* before” assessing the subject matter eligibility of claim 1, which was not the case in PGR2021-00093. *Id.* at 57–58.

Patent Owner moreover asserts “Petitioner’s arguments are also circular—that is, Petitioner asks the Board to, in effect, conduct a § 101 analysis . . . to find that the claim involves identical issues as decided in [PGR2021-00093].” *Id.* at 58 n.5.

Petitioner replies with arguments discussed above in relation to Limitation [1.3]. *See* Pet. Reply 18–20. Petitioner also adds, concerning claim 11 in the ’614 patent, that claim 1 in the ’920 patent “omits the requirement that the affordance be ‘slid’” which was the feature of claim 11 in the ’614 patent that saved it from ineligibility. *Id.* at 20 (citing PGR2021-00093, Paper 38, at 47 and Paper 15, at 47).

Patent Owner responds with arguments discussed above in relation to Limitation [1.3]. *See* PO Sur-reply 19–21. Patent Owner adds that Limitations [1.10]–[1.12] recite “features that have no correspondence in” claim 1 of the ’614 patent, which “alone should defeat any finding that the issues are identical.” *Id.* at 21–23.

It is undisputed that Limitations [1.10]–[1.12] in the ’920 patent have no analogue in claim 1 of the ’614 patent. However, that alone is insufficient to avoid collateral estoppel. *See Soverain*, 778 F.3d at 1319–20 (holding issue preclusion prevented a patent owner from arguing a dependent claim was not obvious over Newegg, due to a prior judgment of obviousness of the parent claim over Newegg, because the dependent claim merely added that the “network” of the parent claim was “an Internet”).

We nonetheless determine Limitations [1.10]–[1.12] in the ’920 patent materially alter the subject matter eligibility inquiry versus claim 1 of the ’614 patent. These limitations are more than “*slightly different language* to describe substantially the same invention.” *Google*, 54 F.4th at 1381 (emphasis added); *see also id.* at 1381–82 (holding collateral estoppel arose from a previous judgment of obviousness where “[t]he only difference between the claims is the language describing the number of application servers”). Petitioner cites the *Soverain* decision, but in that case the Court

held collateral estoppel arose from a previous judgment of obviousness where “[t]he only additional limitation in [the claim at issue] concern[ed] the Internet” versus “a generic network.” *Soverain*, 778 F.3d at 1319–20. The difference in verbiage here is more significant in the context of a § 101 inquiry.

User interface elements recited in a claim may, in some cases, confer patent eligibility. *See Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1007–08 (Fed. Cir. 2018) (holding that claims reciting “a specific method for navigating through three-dimensional electronic spreadsheets” “by providing a highly intuitive, user-friendly interface with familiar notebook tabs” were not directed to an abstract idea in *Alice* step one, because the claimed invention “improv[ed] computers’ functionality as a tool able to instantly access all parts of complex three-dimensional electronic spreadsheets”); *see also id.* at 1009 (discussing *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018)). The Board in PGR2021-00093 did not grapple with whether Limitations [1.10]–[1.12] in the ’920 patent might cross this threshold. *See* PGR2021-00093, Paper 38, at 5–6 (claim 1 of the ’614 patent), 14–35 (*Alice* step one), 41–43 (*Alice* step two addressing the “user interface”).

We further agree with Patent Owner’s argument that Petitioner’s justification for applying collateral estoppel is unpersuasively circular. That is, Petitioner argues Limitations [1.10]–[1.12] do not confer patent eligibility by applying the *Alice* framework. *See* Pet. 77–78. Petitioner’s need to apply *Alice* merely emphasizes that Limitations [1.10]–[1.12] materially alter the eligibility inquiry versus claim 1 of the ’614 patent.

Next, the Board in PGR2021-00093 considered dependent claim 11 in the '614 patent, which “elaborate[d] on the user interface requirement of independent claim 1 and call[ed] for the visual representation of the vending machine, a ‘prepared balance,’ and ‘an affordance that when slid, indicates the initiation of the vending transaction.’” PGR2021-00093, Paper 38, at 46–47. The Board concluded the petitioners there (KioSoft and TechTrex) “failed to adequately address the claim as a whole” and “fail[ed] to articulate adequately and with particularity” why claim 11 was patent ineligible under § 101. *Id.* at 47. In particular:

Simply asserting that swiping as a general concept was known does not explain adequately, for example, whether the use as recited in the claim and in conjunction with the other displayed information is indicative that an inventive concept may be present or simply appends well-understood, routine, conventional activities previously known to the industry.

Id. Thus, the gist of the Board’s decision was that those petitioners had failed to explain why claim 11 was patent ineligible under § 101, not that claim 11 was in fact patent eligible under § 101. Therefore, the decision has little bearing in this case, which was brought by a different petitioner with different unpatentability contentions.

We conclude the eligibility issues presented by claim 1 of the '920 patent are not “identical” (*Google*, 54 F.4th at 1381) to the eligibility issues presented by claim 1 of the '614 patent because the “user interface” Limitations [1.10]–[1.12] materially affect how we apply Step 2A (*Alice* step one) and Step 2B (*Alice* step two), despite that we ultimately decide claim 1 of the '920 patent is ineligible (*see infra* Sections IV.F.2(b)–(f)).

(iii) *Whether to Apply Collateral Estoppel to Individual Limitations*

Petitioner argues that, even if the Board determines certain limitations in claim 1 of the '920 patent present “a new issue” of unpatentability versus claim 1 of the '614 patent (as we have done above), “collateral estoppel still applies to the Board’s findings regarding all materially identical limitations.” Pet. 78 (citing *Keysight Techs., Inc. v. Centripetal Networks, LLC*, IPR2023-00446, Paper 30, at 21 (PTAB Aug. 5, 2024)).

Patent Owner argues Petitioner fails to show collateral estoppel applies on a limitation-by-limitation basis in a § 101 eligibility inquiry. See PO Resp. 58–59. Patent Owner asserts the *Keysight* decision instead concerned a reference’s prior art status and teachings. *Id.* (citing *Keysight*, Paper 30, at 21). Patent Owner emphasizes that “[t]he § 101 framework ‘requires that the claims be read as a whole’” which “should take into consideration **all the claim limitations and how these limitations interact and impact each other.**” *Id.* at 59–60.

Patent Owner also asserts Petitioner fails to satisfy its burden to “identify the specific ‘issues’ from the Board’s previous decision that must be applied or the specific limitations to which those ‘issues’ apply.” *Id.* at 58–59 (citing *ParkerVision, Inc. v. Qualcomm Inc.*, 116 F.4th 1345, 1357 n.4 (Fed. Cir. 2024)).

Petitioner replies that the Board in *IronSource*, Paper 58, at 19–20⁶ “endorsed” a limitation-by-limitation application of collateral estoppel in a § 101 eligibility inquiry. Pet. Reply 21.

⁶ Petitioner cites 2024 WL 1098132 at page *8, which maps to Paper 58 at pages 19–20 in the Board’s P-TACTS system.

Patent Owner responds that *IronSource* does not support Petitioner’s assertion. PO Sur-reply 23. According to Patent Owner, “[t]he Board in *IronSource* merely concluded anticipation and obviousness issues were identical to those resolved in a prior proceeding” and “made no determination that collateral estoppel applied to some parts of a claim but not others.” *Id.* (citing *IronSource*, Paper 58, at 9–16).

We conclude Petitioner has failed to satisfy its burden to explain how collateral estoppel should be applied to a particular limitation in claim 1 separately from other limitations, or to a particular issue, in the subject matter eligibility inquiry separately from other issues. *See* 35 U.S.C. § 326(e); *ParkerVision*, 116 F.4th at 1357 n.4 (“[T]he party invoking collateral estoppel . . . bears the burden of proving the identity of the issues litigated in the [prior action].”). The Petition simply asserts that “collateral estoppel . . . applies to the Board’s findings regarding all materially identical limitations” (Pet. 78), and then proceeds to the § 101 eligibility inquiry under *Alice* (*see id.* at 80–87). Petitioner’s *Alice* analysis is sprinkled with citations to the Board’s decision in PGR2021-00093, but Petitioner largely supplies its own arguments for ineligibility rather than establishing the *Alice* steps are “identical” under the *Google* decision. *See id.* at 80–87. Petitioner particularly does not explain why the patentability issues are identical for claim 1 as a whole, despite the material differences in Limitations [1.3] and [1.10]–[1.12] discussed above. *See id.* Petitioner’s approach invites us to sift through Petitioner’s arguments to parse out the ones we think are persuasive, and then (somehow) fill in any deficiencies with collateral estoppel from the Board’s decision in PGR2021-00093. We decline that invitation.

(b) Step 1: Whether the Claim Falls Within a Statutory Category

At Step 1 of the Guidance, we determine whether claim 1 falls within a statutory category — namely a process, machine, manufacture, or composition of matter. *See* MPEP § 2106.03. We conclude claim 1 recites a “method” (Ex. 1001, 47:6–7) which is a “process” under § 101. *See* Pet. 80; MPEP § 2106.03.

(c) Step 2A, Prong One: Whether the Claim Recites an Abstract Idea

At Step 2A, Prong One of the Guidance, we determine whether claim 1 recites a judicial exception to eligibility, such as certain groupings of abstract ideas including certain methods of organizing human activity (e.g., fundamental economic practices) and mental processes. *See* MPEP § 2106.04(II)(A)(1) & § 2106.04(a); *Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611; *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972). As part of this inquiry, we must examine the relevant limitations in the context of the claim language as a whole. *Alice*, 573 U.S. at 218 n.3. “The § 101 inquiry must focus on the language of the [a]sserted [c]laims themselves.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) (“[T]he important inquiry for a § 101 analysis is to look to the claim.”).

On August 4, 2025, the USPTO issued a Memorandum entitled *Reminders on Evaluating Subject Matter Eligibility of Claims Under*

35 U.S.C. 101 (“2025 Guidance”).⁷ We discuss aspects of the 2025 Guidance that apply to this case below.

Petitioner argues claim 1 “is directed to the abstract idea of identifying a merchant and enabling completion of a purchase from the merchant, which can be performed by a human in the mind or via oral, or written communication with a merchant.” Pet. 80. Claim 1 correspondingly recites (with Petitioner’s labeling added):

[1.2] identifying one or more payment accepting units that are available to accept payment from a mobile payment application executing on the mobile device, [1.3] the identifying based at least in part on an identifier or location corresponding to the one or more payment accepting units, [1.4] wherein the one or more payment accepting units are payment operated machines that accept payment for dispensing of products and/or services;

[1.5] displaying a user interface of the mobile payment application on the display of the mobile device, [1.6] the user interface being configured to display a visual indication of the one or more payment accepting units and [1.7] accept user input selecting an available payment accepting unit of the one or more payment accepting units;

[1.8] establishing via the one or more radio transceivers a wireless communication path including the mobile device and the available payment accepting unit of the one or more payment accepting units;

[1.9] after establishing the wireless communication path, enabling user interaction with the user interface of the mobile payment application to complete a transaction with the available payment accepting unit, [1.10] wherein the user interface includes a visual representation of the available payment accepting unit, [1.11] an indication of a balance, and

⁷ Available at <https://www.uspto.gov/sites/default/files/documents/memo-101-20250804.pdf>.

[1.12] an affordance that, in response to a user input, indicates completion of the transaction;

[1.13] exchanging information with the available payment accepting unit via the one or more radio transceivers, in conjunction with the transaction; and

[1.14] after exchanging the information, displaying, on the display, an updated user interface of the mobile payment application to the user of the mobile device.

Ex. 1001, 47:12–47.

Petitioner addresses each of the limitations above and explains how they support Petitioner’s contention that the claim, as a whole, is directed to the alleged abstract idea. *See* Pet. 80–84. Petitioner argues Limitations [1.2] and [1.3] recite “a customer using the generic mobile device to identify a merchant (i.e., a ‘payment accepting unit’) for purchasing goods based on an identifier or its location,” which “can be done completely in the mind of the customer.” *Id.* at 81. Petitioner contends Limitation [1.4] merely limits the field of use of the alleged abstract idea to “a generic mobile phone and payment accepting unit,” Limitation [1.5] recites a generic “user interface” for performing a purchase, and Limitation [1.8] recites generic “radio transceivers” for communication between the mobile device and the payment accepting unit. *Id.* at 81–82, 83. Petitioner further argues the user interface functionality in claim 1 “merely ‘takes the place of the human acting as an intermediary,’ communicating with the customer and merchant.” *Id.* at 82. In particular, Petitioner argues the recited functionality is “akin to a customer seeing one or more merchants ([L]imitations [1.6], [1.10]), selecting a merchant ([L]imitations [1.7], [1.9]), seeing the amount of money the customer has in their pocket or that is owed ([L]imitation [1.11]), and allowing the transaction to proceed ([L]imitation

[1.12]).” *Id.* at 82–83. According to Petitioner, the ’920 patent specification describes these functions as being “performed using known, generic technology, such as an iPhone 5.” *Id.* at 82 (citing Ex. 1001, 7:13–18, 21:3, 36:14–25, 37:9–12, 38:50–52, 47:39–41). Finally, Petitioner argues Limitations [1.13] and [1.14] merely recite “a merchant communicating with a customer about a transaction.” *Id.* at 83.

Patent Owner responds that the 2025 Guidance states we “should be careful to distinguish claims that recite an exception (which require further eligibility analysis) from claims that merely involve an exception (which are eligible and do not require further eligibility analysis),” and provides examples relating to mathematical concepts. 2025 Guidance, at 3; *see* PO Resp. 62–63. Patent Owner argues “Petitioner’s assertion that ‘[c]laim 1 is directed to the abstract idea of identifying a merchant and enabling completion of a purchase from the merchant’ fails to show that claim 1 **recites** the identified abstract idea.” PO Resp. 61, 63–64 (quoting Pet. 80). According to Patent Owner, “whether [claim 1] can be likened to (or ‘akin to’) a generalized concept is insufficient to establish that the claim expressly recites the specific abstract idea” and Petitioner’s “comparison of [claim 1] to a generic customer-merchant transaction is divorced from the claim language.” *Id.* at 64.

Patent Owner moreover asserts Petitioner does not show claim 1 “can be performed by a human in the mind or via oral, or written communication with a merchant.” *Id.* Here, Patent Owner cites the 2025 Guidance that a claim “does not recite a mental process when it contains limitation(s) that cannot *practically* be performed in the human mind.” 2025 Guidance, at 2 (emphasis added); *see* PO Resp. 64. Patent Owner asserts “claim 1 recites

limitations that require a user to interact with specific user interface elements provided by a mobile application on a mobile device” in the “manual mode” of the ’920 patent specification, which cannot practically be performed in the user’s mind or via communication with a merchant. PO Resp. 64–67 (citing Ex. 1001, 2:25–29, 6:11–16, 7:19–31, 7:45–58, 24:53–59; Ex. 2010, 58:3–60:10); Ex. 2008 ¶¶ 29–34, 129–134. “This is especially true,” according to Patent Owner, in view of the plain and ordinary meaning of the claim term “affordance” which refers to an interactive user interface element, as discussed above in Section IV.D.2(b). PO Resp. 67; Ex. 2008 ¶ 134.

Petitioner replies that the Petition shows claim 1 “recites the abstract idea” and does not merely “involve an abstract idea.” Pet. Reply 21–22 (citing Pet. 80–83). Petitioner argues the “manual mode” and the “hands-free mode” “are disclosed only in the [’920 patent] specification and are not in the claims themselves, and therefore cannot support a Section 101 argument.” *Id.* at 22. Further: “Focusing instead on the claims themselves, the claims recite a transaction process at such a high level of generality, that they can easily be performed in a human mind.” *Id.* at 22–23.

Patent Owner replies that Petitioner asserts claim 1 “merely involves identifying a merchant and enabling completion of a purchase” rather than that claim 1 “recite[s]” an abstract idea. PO Sur-reply 23 (citing Pet. 80–83; Pet. Reply 21–22). Further, Patent Owner “is not contending that the ‘exact examples’ disclosed in the [’920 patent] specification should be read into” claim 1, but rather contends that claim 1 is “generally directed to the manual mode, which require[s] user interaction with the mobile device.” *Id.* at 24 (citing PO Resp. 65–66; Ex. 2010, 58:3–60:10).

We agree with Petitioner’s argument that claim 1 recites the abstract idea of identifying a merchant and enabling completion of a purchase from the merchant. *See* Pet. 80–84. For example, Petitioner notes specifically how Limitation [1.2], reciting “identifying one or more payment accepting units,” pertains to identifying a merchant, and how Limitations [1.6], [1.7], and [1.9] recite user interaction using the mobile device that enables the completion of a purchase. *See id.* Petitioner thus shows sufficiently how claim 1, by virtue of the limitations quoted above,⁸ recites the concept of identifying a merchant and enabling completion of a purchase from the merchant. *See id.* at 80.

Petitioner also argues persuasively that identifying a merchant and enabling completion of a purchase from the merchant is similar to other concepts held to be an abstract idea. *See id.* at 80–83; *Universal Secure Registry LLC v. Apple Inc.*, 10 F.4th 1342, 1349–50 (Fed. Cir. 2021) (“The claims are directed to a method for enabling a transaction between a user and a merchant, where the merchant is given a time-varying code instead of the user’s secure (credit card) information.”); *cxLoyalty, Inc. v. Maritz Holdings, Inc.*, 986 F.3d 1367, 1376–77 (Fed. Cir. 2021) (“[C]laim 1 is directed to ‘facilitating, or brokering, a commercial transaction (i.e., the sale and purchase of goods and services) between a purchaser using a first form of

⁸ As explained further below in the context of Step 2A, Prong Two and Step 2B of the Guidance, claim 1 recites that the method steps are performed “at a mobile device with one or more processors, memory, one or more output devices including a display, and one or more radio transceivers,” and also recites “one or more payment accepting units,” a “mobile payment application executing on the mobile device,” and a “user interface” of the mobile payment application displayed on the mobile device. *See infra* Sections IV.F.2(d)–(e).

value (i.e., a rewards program participant using points in whole or in part) and a seller transacting in a second form of value (i.e., a vendor system which transacts purchases in currency).”); *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1372 (Fed. Cir. 2017) (“Taken together, the Asserted Claims are directed to the formation of financial transactions in a particular field (i.e., mass transit) and data collection related to such transactions.”); *In re AuthWallet, LLC*, No. 2022-1842, 2023 WL 3330298, at *3 (Fed. Cir. May 10, 2023) (“[T]he claims are directed to a method for processing financial transaction data that implements authorization requests and confers discounts and benefits upon the consumer.”); *In re Elbaum*, No. 2021-1719, 2021 WL 3923280, at *2 (Fed. Cir. Sept. 2, 2021) (“[T]he claim is directed to an abstract idea, specifically a method of providing information and allowing customers to utilize that information to engage in a commercial transaction.”); *Ex parte James*, Appeal No. 2018-005345, 2019 WL 2763407, at *7–8 (PTAB June 21, 2019) (affirming rejection of claims directed to “transmitting information to conduct financial transactions, including writing checks and maintaining an associated account ledger”). Patent Owner does not address these cases cited by Petitioner or explain why they are inapplicable, despite our reliance on them in the Institution Decision (Paper 12, at 22–23).⁹

⁹ Patent Owner argued at the hearing that “analogizing to Federal Circuit decisions where claims were found ineligible” is “not even the right approach here because of the deficiencies in [Petitioner’s] case.” Tr. 62:7–23. We disagree. See *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (“[T]he decisional mechanism courts now apply [for Section 101] is to examine earlier cases in which a similar or parallel descriptive nature can be seen — what prior cases were

We further conclude the abstract idea recited in claim 1 can be performed by a human in the mind or via oral or written communication with a merchant. *See* Pet. 80. Patent Owner’s opposition overlooks that these two sub-groupings of abstract ideas in the Guidance “are not mutually exclusive, i.e., some claims recite limitations that fall within more than one . . . sub-grouping.” MPEP § 2106.04(a). That is, the *entire* abstract idea does not need to be a mental process that can be performed practically in the human mind. Instead, the abstract idea may be composed of some parts that can be performed practically in the human mind, and other parts that concern the fundamental economic practice of communications between a merchant and a customer to complete a sale of goods. That is the case here, as discussed above.

Patent Owner particularly focuses on the “user interface” recitations in claim 1 corresponding to the “manual mode” of the ’920 patent specification which requires user interaction with the mobile device — that is, Limitations [1.6], [1.7], and [1.9]–[1.12]. However, these limitations recite merely that the user interface: displays a visual indication or representation of a payment accepting unit (i.e., a merchant) available for selection; accepts a user input selecting an available payment accepting unit

about, and which way they were decided.”); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016) (“[The Federal Circuit] and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.”); *Etison LLC v. HighLevel, Inc.*, No. 2025-1711, 2026 WL 1906579, at *7 (Fed. Cir. July 2, 2026) (nonprecedential) (“The district court’s decision to analogize the patents-in-suit to similar claims we have evaluated, in what now amounts to a rich and elaborate corpus of Section 101 precedent, was entirely proper.”).

(i.e., a merchant); includes an indication of a balance (i.e., available funds for making a purchase); and includes an affordance that, in response to a user input, indicates completion of the transaction (i.e., notifies the user that the transaction is complete). These user interactions with the mobile device are routine aspects of identifying a merchant and enabling completion of a purchase from the merchant, so they are appropriately considered part of the recited abstract idea.

Moreover, even if the specific “affordance” interaction of Limitation [1.12] is too concrete to be considered part of the *recited* abstract idea in Step 2A, Prong One, we conclude claim 1 nonetheless is *directed* to an abstract idea in Step 2A, Prong Two, as discussed below in Section IV.F.2(d).

Thus, we conclude Petitioner has shown claim 1 recites identifying a merchant and enabling completion of a purchase from the merchant, which falls within the enumerated “mental process” and “[c]ertain methods of organizing human activity” groupings of abstract ideas in the Guidance. *See* MPEP § 2106.04(a)(2).

(d) Step 2A, Prong Two: Whether the Claim Recites Additional Elements that Integrate the Abstract Idea into a Practical Application

At Step 2A, Prong Two of the Guidance, we determine whether claim 1 recites “additional elements that integrate the judicial exception [here, an abstract idea] into a practical application” of the judicial exception. MPEP § 2106.04(II)(A)(2); *see id.* § 2106.04(d). If the claim as a whole does integrate the recited judicial exception into a practical application, then the claim is not “directed to” the abstract idea and is patent eligible. *See id.* § 2106.04(d). The 2025 Guidance reminds us that this analysis “considers

the claim *as a whole*,” such that “[t]he way in which the additional elements use or interact with the exception may integrate the judicial exception into a practical application” and “the additional limitations should not be evaluated in a vacuum, completely separate from the recited judicial exception.” 2025 Guidance, at 3–4.

“A claim that integrates a judicial exception into a practical application will apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” MPEP § 2106.04(d). One example in which a judicial exception may be integrated into a practical application is when the claim includes an additional element that reflects “[a]n improvement in the functioning of a computer, or an improvement to other technology or technical field.” *Id.* § 2106.04(d)(I) (citing *id.* §§ 2106.04(d)(1) & 2106.05(a)).

Petitioner argues: “Other than the abstract idea, [c]laim 1 recites only generic elements: (1) a mobile device; (2) an application executing on the mobile device; (3) a payment accepting unit; and (4) a user interface.” Pet. 84. According to Petitioner, the generically-recited “mobile device,” “mobile payment application,” “one or more payment accepting units,” and “user interface” are “merely used as a tool” to perform the alleged abstract idea and do not integrate the exception into a practical application. *Id.* at 84–85.

Patent Owner responds that claim 1 “is directed to a specific embodiment of a mobile application that requires user interaction with a specific user interface” thereby integrating the abstract idea into a practical application. PO Resp. 61–62, 68–69 (citing Pet. 80–81, 84–85). Patent

Owner accuses Petitioner of failing “to consider claim 1 as a whole and assess ‘[t]he way in which the additional elements use or interact with the exception’” as required by the 2025 Guidance. *See id.* at 69–70 (citing Pet. 84–85).

Patent Owner also asserts Dr. Neuman admitted during cross-examination that Limitations [1.2], [1.5], and [1.7]–[1.12] “interact with one another to recite a user interface that performs an ordered combination of functionality to the user.” *Id.* at 70–71 (citing Ex. 2010, 36:22–37:5, 39:10–41:1, 66:16–68:22). Specifically, according to Patent Owner, these claim elements “meaningfully limit any judicial exception to a particular practical application — *i.e.*, a mobile device that enables an ordered identification of an available payment accepting unit and subsequent interaction with the available payment accepting unit through a user interface.” *Id.* at 71.

Patent Owner moreover attacks Petitioner’s argument that the claimed mobile device, application executing on the mobile device, payment accepting unit, and user interface are “only generic elements” as improperly reading out or ignoring limitations “merely because they can be found in the prior art.” *Id.* at 70 (citing *PowerBlock Holdings, Inc. v. iFit, Inc.*, 146 F.4th 1366, 1373 (Fed. Cir. 2025); *Contour IP Holding LLC v. GoPro, Inc.*, 113 F.4th 1373, 1380 (Fed. Cir. 2024)).

Petitioner replies that “[t]he Petition analyzes the entire claim by asserting that ‘[n]othing in Claim 1 integrates the abstract idea into a practical application that imposes a meaningful limit on the abstract idea,’ followed by an identification of the generic elements recited in the claim.” Pet. Reply 23 (citing Pet. 84). Further: “Patent Owner’s arguments

regard[ing] the supposed ordered combination — which [were] previously rejected by this Board [in PGR2021-00093] — likewise do nothing to integrate the abstract idea into a practical application.” *Id.* (citing PO Resp. 1; PGR2021-00093, Paper 38, at 27–28; *GoTV Streaming, LLC v. Netflix, Inc.*, 166 F.4th 1053, 1066–68 (Fed. Cir. 2026)).

Patent Owner responds that “Petitioner takes the facially indefensible position that the claims preempt the entire idea of identifying a merchant and enabling completion of a purchase from that merchant,” which “is precisely what the Office identifies as improper analysis.” PO Sur-reply 24–25 (citing Pet. Reply 23; 2025 Guidance, at 3–4).

We agree with Petitioner’s argument that the additional elements in claim 1 do not integrate the recited abstract idea into a practical application. In particular, claim 1 recites the “mobile device,” “mobile payment application,” “one or more payment accepting units,” and “user interface” as generic components at a high level of generality. And, as Petitioner points out, the ’920 patent specification describes the use of generic technology. *See* Pet. 82. For example, the ’920 patent specification states that “[m]obile devices include, but are not limited to smart phones, tablet or laptop computers, or personal digital assistants (PDAs), smart cards, or other technology (e.g., a hardware-software combination) known or yet to be discovered that ha[ve] structure and/or capabilities similar to the mobile devices described herein,” and discloses an application on the mobile device that can be “*any* software program(s) capable of implementing the features described herein.” Ex. 1001, 9:9–18 (emphasis added); *see also id.* at 21:2–6 (describing an iPhone 5 as the mobile device).

Petitioner persuasively argues that these components are merely used as a tool to identify a merchant and enable completion of a purchase from the merchant. *See* Pet. 84–85; *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017) (“The ‘focus of the claims’ is on the method of financing, and the recited generic computer elements ‘are invoked merely as a tool.’”); *Enfish*, 822 F.3d at 1335–36 (determining whether the claims at issue were focused on a “specific asserted improvement in computer capabilities” or “a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool”).

Patent Owner focuses on the “user interface” Limitations [1.6], [1.7], and [1.9]–[1.12]. As noted above, we have concluded that the functionality of these limitations is part of the recited abstract idea. In the alternative, if the “affordance” interaction of Limitation [1.12] is too concrete to be considered part of the recited abstract idea, we additionally conclude here that the “user interface” of claim 1 does not integrate the recited abstract idea into a practical application. *See, e.g.*, Pet. 85.

Specifically, the “user interface” limitations recite that the user interface: displays a visual indication or representation of a payment accepting unit available for selection; accepts a user input selecting an available payment accepting unit; includes an indication of a balance; and includes an affordance that, in response to a user input, indicates completion of the transaction. Even considering these “user interface” limitations with claim 1 as a whole, the claim does not integrate the recited abstract idea into a practical application because the “user interface” limitations merely apply the recited abstract idea on a generic mobile device without meaningfully limiting the abstract idea. *See* 2025 Guidance, at 4–5. For example, these

limitations do not reflect an improvement to the functioning of the mobile device (or any other computer device), and instead are “mere instructions to implement an abstract idea or other exception on” the mobile device. *Id.*

For example, in *International Business Machines Corp. v. Zillow Group, Inc.*, 50 F.4th 1371 (Fed. Cir. 2022), the Court stated: “Identifying, analyzing, and presenting certain data to a user is not an improvement specific to computing” in *Alice* step one. *Id.* at 1378 (“We have repeatedly held claims ‘directed to collection of information, comprehending the meaning of that collected information, and indication of the results, all on a generic computer network operating in its normal, expected manner’ to be abstract.”). We conclude claim 1 at issue here similarly is directed to an abstract idea.

By contrast, the *Data Engine* decision discussed above is representative of cases in which the claimed invention is *not* directed to an abstract idea by virtue of providing a solution to an existing technological problem. *See Data Engine*, 50 F.3d at 1007–09. There, the Court considered claims reciting “a specific method for navigating through three-dimensional electronic spreadsheets” “by providing a highly intuitive, user-friendly interface with familiar notebook tabs.” *Data Engine*, 50 F.3d at 1008. The Court held such claims were not directed to an abstract idea in *Alice* step one, because the claimed invention “improv[ed] computers’ functionality as a tool able to instantly access all parts of complex three-dimensional electronic spreadsheets.” *Id.* By contrast, the “user interface” limitations in claim 1 of the ’920 patent do not improve the functionality of the mobile device in any sort of analogous way.

At best for Patent Owner, Limitation [1.12] specifies that the mobile device's user interface includes "an affordance that, in response to a user input, indicates completion of the transaction." Ex. 1001, 47:37–41. But, again, that does not reflect an improvement to the functioning of the mobile device (or any other computer device), either alone or in combination with other claim elements. Indeed, as discussed above in Section IV.D.2(b) when applying the Affordance Limitation to Low, the '920 patent specification does not even illustrate an "affordance" in the figures when utilizing that term in the written description, leaving it to the knowledge of a person of ordinary skill in the art to implement. *See* Ex. 1001, 37:9–12, 38:50–52. This supports our conclusion here that Limitation [1.12] does not integrate the recited abstract idea into a practical application. *See* MPEP

§ 2106.04(d)(1) ("[T]he specification should be evaluated to determine if the disclosure provides sufficient details such that one of ordinary skill in the art would recognize the claimed invention as providing an improvement," and "it must describe the invention such that the improvement would be apparent to one of ordinary skill in the art.").

Thus, we conclude Petitioner has shown that claim 1 as a whole, looking at the additional limitations of the "mobile device," "mobile payment application executing on the mobile device," "one or more payment accepting units," and "user interface," does not integrate the recited abstract idea into a practical application. Petitioner therefore has shown claim 1 is directed to identifying a merchant and enabling completion of a purchase from the merchant.

(e) *Step 2B: Whether the Claim Includes an Inventive Concept*

At Step 2B of the Guidance (the second step of the *Alice* framework), we “scrutinize the claim elements more microscopically” for additional elements that might be understood to “transform the nature of the claim” into a patent-eligible application of an abstract idea. *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (quoting *Alice*, 573 U.S. at 222–24); MPEP § 2106.05(I). That is, we determine whether claim 1 includes “an ‘inventive concept’ — *i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 573 U.S. at 217–18 (quoting *Mayo*, 566 U.S. at 72–73) (alteration in original). The relevant inquiry is whether “additional substantive limitations . . . narrow, confine, or otherwise tie down the claim so that, in practical terms, it does not cover the full abstract idea itself.” *Accenture*, 728 F.3d at 1344–45.

This Step 2B inquiry is “similar to” Step 2A, Prong Two discussed above and “most of the[] considerations overlap.” MPEP § 2106.04(d)(I) & § 2106.05(II). Thus, much of our analysis in Step 2A, Prong Two applies here in Step 2B. However, Step 2B further considers “whether the additional element(s) are well-understood, routine, conventional activities previously known to the industry.” *Id.* § 2106.05(d); *id.* § 2106.04(d)(I) (“Step 2A specifically excludes consideration of whether the additional elements represent well-understood, routine, conventional activity.”). If the additional claimed elements involve “well-understood, routine, [and] conventional activity previously engaged in,” they do not include an

“inventive concept.” *Mayo*, 566 U.S. at 72–73; MPEP § 2106.05(I)(A) & § 2106.05(d).

Petitioner argues claim 1 recites “a well-understood, routine, and conventional wireless mobile device” that “uses well-known, routine, and conventional elements to carry out the abstract idea” of “identifying a merchant and enabling completion of a purchase from the merchant,” and cites supporting testimony from Dr. Neuman. Pet. 85–87 (citing Ex. 1003 ¶¶ 287–320). As to the combination of recited elements, Petitioner contends:

Taken as a whole, the steps of using a generic mobile phone to identify some information, display some information on the user interface of the mobile phone, accept user input via the user interface, and process and incorporate that user input, and then generally communicate with one or more other generic devices was well-understood, routine, and conventional.

Id. at 87 (citing Ex. 1003 ¶¶ 291–299).

Patent Owner argues “Petitioner fails to satisfy its burden in showing that the claim uses ‘well-known, routine, and conventional elements to carry out the abstract idea.’” PO Resp. 61, 72 (citing Pet. 85–87). Patent Owner asserts Dr. Neuman applied “the wrong standard (obviousness) in assessing whether the claim limitations were routine and conventional under § 101.” *Id.* at 61, 72–73 (citing Ex. 1003 ¶¶ 290, 296, 299, 303, 306–308, 310, 316–317; Ex. 2010, 69:6–73:15, 75:1–17, 80:18–81:6; *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016)). Patent Owner further asserts the Petition improperly incorporates “over thirty paragraphs” of Dr. Neuman’s Declaration in this regard. *Id.* at 72 (citing 37 C.F.R. § 42.6(a)(3); Pet. 86; Ex. 1003 ¶¶ 287–320).

Patent Owner also argues Petitioner’s failure to establish the obviousness of claim 1 over Low, Arora, and Freeny in Ground One carries forward here in Ground Three by failing to demonstrate “claim 1 recites only elements that were ‘well-known, routine, and conventional.’” *Id.* at 74 (citing Ex. 1003 ¶¶ 306, 317; *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018)); Ex. 2008 ¶ 135.

Petitioner replies that “[t]he Petition and Dr. Neuman merely referred to the prior art cited in the obviousness analysis as examples of how the limitations are well-known, routine, and conventional, which is perfectly acceptable.” Pet. Reply 23–24 (citing *Internet Pats. Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015)). Petitioner further asserts Dr. Miller acknowledged that the hardware elements recited in claim 1 were known prior to the ’920 patent, and each recited step is a function performed by the generic mobile device. *See id.* at 24–25 (citing Ex. 1032, 140:18–151:18).

Patent Owner responds that “Petitioner’s arguments essentially suggest that, because mobile devices were known, any mobile device interface is necessarily ineligible.” PO Sur-reply 25–26 (citing Pet. Reply 24–25; *Berkheimer*, 881 F.3d at 1369). Further according to Patent Owner, claim 1 “recite[s] specific hardware and software features that provide for *particular user interactivity*, which Petitioner tried and failed to show was ‘well-known, routine, and conventional.’” *Id.* at 26 (emphasis added).

We agree with Petitioner’s argument that claim 1 does not recite any elements, individually or as an ordered combination, that transform the abstract idea into a patent-eligible inventive concept by ensuring the claim as a whole amounts to significantly more than the abstract idea itself. *See*

MPEP § 2106.05(I). Petitioner explains, with supporting testimony from Dr. Neuman, why claim 1 merely recites generic and conventional computer components (i.e., “mobile device,” “one or more processors,” “memory,” “one or more output devices including a display,” “one or more radio transceivers,” “one or more payment accepting units,” “application,” and “user interface”) and functionality (i.e., “wireless communication path”) for identifying a merchant and enabling completion of a purchase from the merchant. *See* Pet. 85–86; Ex. 1003 ¶¶ 287–320; *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”); *see also Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (holding that the claims at issue, which “recite[d] both a generic computer element — a processor — and a series of generic computer ‘components’ that merely restate their individual functions . . . merely describe the functions of the abstract idea itself, without particularity” which is “not enough under step two”); *Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (holding that “generic computer components such as an ‘interface’ . . . do not satisfy the inventive concept requirement”). Patent Owner does not address these cases or explain why they are inapplicable, despite our reliance on them in the Institution Decision (Paper 12, at 30–31).

Dr. Neuman’s opinion that the recited components were well-understood, routine, and conventional is supported by disclosures in the ’920 patent specification. *See, e.g.*, Ex. 1003 ¶ 294 (a processor, memory, output device with a display, and radio transceiver are all “necessary for

operation of, and found in, a conventional mobile device”), ¶ 295 (mobile device user interfaces, such as a keypad or touch screen, were well-known), ¶ 297 (payment accepting units, such as vending machines, parking meters, tool booths, etc., were well-known), ¶ 298 (wireless communication between a mobile device and vending machine, such as via Bluetooth, was well-known)(citing Ex. 1001, 1:51–52, 2:5–15, 9:14–22, 9:34–39, 9:55–57, 10:2–20, 10:36–43, 12:30–39).

“The inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art” such that “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *BASCOM*, 827 F.3d at 1350 (cited at PO Resp. 59). Nonetheless, Patent Owner does not identify or explain in any detail what combination of element(s) in claim 1 might constitute an inventive concept. *See* PO Resp. 72–75 (Step 2B argument limited to asserting that Petitioner fails to satisfy its burden to demonstrate unpatentability, rather than affirmatively identifying a potential inventive concept); Ex. 2008 ¶ 135.

Further, considering the additional elements of claim 1 as an ordered combination, we discern nothing that adds a specific limitation beyond the abstract idea that is not well-understood, routine, and conventional in the field. Instead, as discussed above, the additional elements of claim 1 “[s]imply append[] well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the [abstract idea]” recited in claim 1. MPEP § 2106.05(I)(A). That is, the additional elements of claim 1 provide merely ordinary functionality to apply an abstract idea, and do not provide a specific application designed to

achieve an improved technological result. Thus, we find no element or combination of elements recited in claim 1 that contains any “inventive concept” or adds anything “significantly more” to transform the abstract concept into a patent-eligible application. *See Alice*, 573 U.S. at 221.

Patent Owner’s Step 2B argument does refer to Limitation [1.12], which specifies that the mobile device’s user interface includes “an affordance that, in response to a user input, indicates completion of the transaction.” Ex. 1001, 47:37–41. Patent Owner particularly argues Limitation [1.12] is not disclosed by Petitioner’s combination of Low, Arora, and Freeny. *See* PO Resp. 74–75; PO Sur-reply 26 (referring to “*particular user interactivity*” (emphasis added)).

However, as mentioned above in Section IV.F.2(d) in relation to Step 2A, the ’920 patent specification does not even illustrate an “affordance” in the figures when utilizing that term in the written description, leaving it to the knowledge of a person of ordinary skill in the art to implement. *See* Ex. 1001, 37:9–12, 38:50–52. This evidence supports our conclusion here in Step 2B that Limitation [1.12] represents well-understood, routine, conventional activity — even without Low, Arora, Freeny, or other prior art of record, and without a showing by Petitioner of obviousness of claim 1. *See* MPEP § 2106.05 (“Although the courts often evaluate considerations such as the conventionality of an additional element in the eligibility analysis, the search for an inventive concept should not be confused with a novelty or non-obviousness determination.”); *id.* § 2106.05(d) (“in many instances, the specification of the application may indicate that additional elements are well-known or conventional” (citing

case law)); *Berkheimer*, 881 F.3d at 1368–70 (examining the challenged patent’s specification in the context of applying Step 2B).

Moreover, the “user interface” limitations in claim 1 here are similar to the claim at issue in *cxLoyalty* which failed Step 2B. Specifically, “[t]he claims appl[ied] the abstract idea on a computer by replacing the human intermediary [for redeeming loyalty rewards] with a GUI and API, but . . . ‘merely recite[d] generic and conventional computer components (i.e., “processor,” “GUI,” and “API”) and functionality for carrying out’ the abstract idea.” *cxLoyalty*, 986 F.3d at 1377; *see also id.* at 1370–72 (summarizing the challenged patent’s specification and representative claim 1); Ex. 1001, 6:64–7:3 (stating that the mobile device with the user interface is used “as an intermediary” between a payment accepting unit and server). Somewhat similarly, in *Affinity Labs of Texas, LLC v. Amazon.com, Inc.*, 838 F.3d 1266 (Fed. Cir. 2016), “[f]eatures such as network streaming and a customized user interface do not convert the abstract idea . . . into a concrete solution to a problem.” *Id.* at 1271 (emphasis added); *see also id.* at 1272 (“The addition of basic user customization features to the interface does not alter the abstract nature of the claims and does not add an inventive component that renders the claims patentable.”).

Patent Owner’s objection that the Petition incorporates the Neuman Declaration by reference has some merit. *See* Pet. 85–87 (citing Ex. 1003 ¶¶ 287–320); 37 C.F.R. § 42.6(a)(3). Petitioner’s underlying arguments, however, appear in the Petition, and Petitioner addresses each limitation of claim 1. *See* Pet. 81–87. Further, in the specific context of this case, where the Step 2B analysis is relatively straight-forward in favor of Petitioner’s position due to the breadth of the claim as discussed above, this cavil is an

inadequate basis to throw out Petitioner’s eligibility challenge to claim 1. *See* 37 C.F.R. § 42.5 (“The Board may waive or suspend a requirement of parts 1, 41, and 42[.]”).

Finally, we acknowledge that in PGR2021-00093, claims 11 and 12 of the ’614 patent survived the § 101 challenge by virtue of reciting that the user interface included “an affordance that *when slid*, indicates the initiation of the vending transaction.” PGR2021-00093, Paper 38, at 46–47 (emphasis added); *see also id.* at 47 (“*Simply asserting that swiping as a general concept was known* does not explain adequately. . . (emphasis added)). By contrast, limitations [1.10]–[1.12] in claim 1 of the ’920 patent do not recite that the user interface incorporates a swiping action, and instead recite only that in response to “user input,” the affordance indicates completion of the transaction. Ex. 1001, 47:37–41. Moreover, as discussed above, the ’920 patent specification indicates the affordance of claim 1 was well-understood, routine, and conventional.

Thus, we conclude Petitioner has shown that the additional limitations of claim 1, viewed individually and as an ordered combination, merely use well-understood, routine, and conventional computer components and functionality to identify a merchant and enable completion of a purchase from the merchant, such that claim 1 does not provide an inventive concept.

(f) Conclusion as to Claim 1

Petitioner has shown that the limitations of claim 1, when considered individually and as an ordered combination, do no more than apply a certain method of organizing human activity, namely identifying a merchant and enabling completion of a purchase from the merchant. *See Alice*, 573 U.S. at

217–18. Petitioner also has shown that claim 1 does not recite anything in a manner sufficient to transform that abstract idea into a patent-eligible invention. *See id.* Therefore, we conclude claim 1 is unpatentable as claiming ineligible subject matter under 35 U.S.C. § 101.

3. *Claims 13 and 15*

Claim 13 of the '920 patent recites a mobile device comprising “one or more radio transceivers,” “one or more output devices including a display,” “one or more processors,” and “memory storing one or more programs to be executed by the one or more processors, the one or more programs comprising instructions for” performing the same steps as method claim 1. Ex. 1001, 48:35–49:9. Claim 15 recites a “non-transitory computer readable storage medium storing one or more programs, the one or more programs comprising instructions, which, when executed by a mobile device or more processors, one or more output devices including a display, and one or more radio transceivers, cause the mobile device to perform” the same steps as method claim 1. *Id.* at 49:15–50:10.

Both parties refer back to their arguments concerning claim 1 when addressing claims 13 and 15. *See* Pet. 87–88; PO Resp. 75; Pet. Reply 25. For the reasons provided above in relation to claim 1, we conclude: (1) collateral estoppel does not prevent Patent Owner from arguing claims 13 and 15 satisfy the subject matter eligibility requirement of 35 U.S.C. § 101; and (2) Petitioner has shown on the merits that claims 13 and 15 are unpatentable as claiming ineligible subject matter.

4. *Claims 2 and 16*

Claim 2 of the '920 patent depends from claim 1 to add that the user interface of the mobile device is updated after exchanging information with the payment accepting unit to include a message, a banner notification, or a visual alert from light-emitting diodes. *See* Ex. 1001, 47:42–47 (parent claim 1), 47:48–55 (claim 2). Claim 16 depends from independent claim 15 and recites the same limitations as claim 2. *See id.* at 50:11–18.

Petitioner argues claims 2 and 16 do not add meaningful limitations to the abstract idea of the independent claims. *See* Pet. 88 (citing PGR2021-00093, Paper 38, at 44–46). In support, Petitioner asserts the '920 patent fails to “provide additional information regarding the claimed messages, notifications, or visual alerts, beyond that ‘appropriate technology may be used’ and providing generic sample notifications and messages.” *Id.* at 88–90 (citing Ex. 1001, Figs. 26A–26D, 13:45–50, 38:5–43); Ex. 1003 ¶ 325.

Patent Owner argues “Petitioner fails to meet its burden” here by “ignor[ing] the claim limitations as a whole.” PO Resp. 75–76. Patent Owner asserts in Step 2A that claims 2 and 16 “recite[] the display of particular features with particular structure (*i.e.*, a message, a banner notification, or a visual alert from one or more LEDs) after a particular sequence of events using particular hardware (*i.e.*, after *exchanging information with the available payment accepting unit via the one or more radio transceivers, in conjunction with the transaction[]*).” *Id.* at 76; Ex. 2008 ¶¶ 136–137. Patent Owner asserts in Step 2B that Petitioner’s obviousness challenge “fails to identify any support that these limitations,

when considered as a whole, were well-understood, routine, and conventional.” PO Resp. 76 (citing *id.* at 36–37); Ex. 2008 ¶ 137.

Petitioner replies that “Patent Owner made similar arguments in [PGR2021-00093], which the Board properly rejected.” Pet. Reply 25–26 (citing PGR2021-00093, Paper 38, at 34–35, 44–45).

Patent Owner responds that “Petitioner’s reliance on its obviousness analysis and erroneous assertions regarding the prior art carry over to” dependent claims 2 and 16. PO Sur-reply 26. In particular, Patent Owner asserts Petitioner’s combination of Low, Arora, and Freeny “does not evidence that limitations recited in [these claims] were known at all, let alone ‘well-known, routine, and conventional.’” *Id.*

In Step 2A, we conclude claims 2 and 16 are directed to the abstract idea of identifying a merchant and enabling completion of a purchase from the merchant, as discussed above in relation to claim 1. The dependent claim limitations fail to integrate that abstract idea into a practical application because notifying the user of information exchanged between the mobile device and the payment accepting unit adds only insignificant extra-solution activity to the abstract idea. *See* MPEP § 2106.04(d)(I) (“[a]dding insignificant extra-solution activity to the [abstract idea]” does not integrate the abstract idea into a practical application); *id.* § 2106.05(g) (“An example of post-solution activity is an element that is not integrated into the claim as a whole, *e.g.*, a printer that is used to output a report . . .”).

Moreover, simply notifying the user of information exchanged between the mobile device and the payment accepting unit does not improve the functioning of the mobile device or the payment accepting unit. *See* MPEP § 2106.04(d) (“claims that improve the functioning of a computer or

other technology or technological field” integrate an abstract idea into a practical application); *see also id.* § 2106.04(d)(1) & § 2106.05(a) (discussing this principle in detail); 2025 Guidance, at 4 (“**Improvements consideration**”). An “important consideration” in this context “is the extent to which the claim covers a particular solution to a problem or a particular way to achieve a desired outcome, as opposed to merely claiming the idea of a solution or outcome.” 2025 Guidance, at 4. Claims 2 and 16 fall into the latter category, by merely updating the user as to information being exchanged. *See, e.g., Mobile Acuity Ltd. v. Blippar Ltd.*, 110 F.4th 1280, 1292–93 (Fed. Cir. 2024) (“As we have by now frequently held, claims reciting generalized steps of collecting, analyzing, and presenting information, using nothing other than the conventional operations of generic computer components, are directed to abstract ideas.”).

In Step 2B, we conclude the additional limitations in claims 2 and 16 do not transform the abstract idea into a patent-eligible concept, because they represent well-understood, routine, and conventional activity in notifying the user of information exchanged between the mobile device and the payment accepting unit. The nature and brevity of the ’920 patent specification’s description of the message / banner notification / LED alert of claims 2 and 16 suggests these elements are routine and conventional in the field. *See Ex. 1001*, 2:30–52, 34:18–30 (Figs. 26A–26D), 35:49–55, 38:6–52; MPEP § 2106.05 (“Although the courts often evaluate considerations such as the conventionality of an additional element in the eligibility analysis, the search for an inventive concept should not be confused with a novelty or non-obviousness determination.”); *id.* § 2106.05(d) (“in many instances, the specification of the application may

indicate that additional elements are well-known or conventional” (citing case law)); *Berkheimer*, 881 F.3d at 1368–70 (examining the challenged patent’s specification in the context of applying Step 2B). This evidence supports our conclusion in Step 2B, even without Low, Arora, Freeny, or other prior art of record, and without a showing by Petitioner of obviousness of claims 2 and 16.¹⁰ Thus, we credit Dr. Neuman’s testimony on this point over Dr. Miller’s rebuttal. *See* Ex. 1003 ¶ 325; Ex. 2008 ¶¶ 80–83, 137 (testifying only that “Dr. Neuman fails to show that the applied prior art [i.e., Low, Arora, and Freeny] discloses the specific features recited in” claims 2 and 16).

We conclude Petitioner has shown claims 2 and 16 are unpatentable as claiming ineligible subject matter under 35 U.S.C. § 101.

5. *Claims 3, 4, and 17*

Claim 3 of the ’920 patent depends from claim 1 to add that the information exchanged with the payment accepting unit “indicates completion of the transaction.” Ex. 1001, 47:42–44 (parent claim 1), 47:56–58 (claim 3). Claim 4 depends from claim 3 to add that the exchanged information “includes an amount of the completed transaction,” and to specify further that “the mobile device includes a long-range

¹⁰ Patent Owner cites *CosmoKey Solutions GmbH & Co. KG v. Duo Security LLC*, 15 F.4th 1091, 1098 (Fed. Cir. 2021), as “finding district court’s reliance on challenged patent’s specification description that steps were routine or conventional was ‘misplaced’ as prior art did not teach the recited claim steps.” PO Resp. 76. We disagree. In *CosmoKey*, the Court simply disagreed with the district court’s reading of the challenged patent’s specification, and did not require an inquiry into what the prior art teaches separately from the specification. *See CosmoKey*, 15 F.4th at 1098–99.

transceiver” that sends the completed transaction amount to a server. *Id.* at 47:59–64. Claim 17 depends from independent claim 15 and recites the same limitations as claim 4 except that it does not require a long-range transceiver. *See id.* at 50:19–28.

Petitioner argues claims 3, 4, and 17 do not add meaningful limitations to the abstract idea of the independent claims. *See* Pet. 88 (citing PGR2021-00093, Paper 38, at 44–46). Concerning claim 3, Petitioner asserts the ’920 patent fails to “provide additional information regarding the claimed messages . . . beyond that ‘appropriate technology may be used’ and providing generic sample notifications and messages.” *Id.* at 88–90 (citing Ex. 1001, Figs. 26A–26D, 13:45–50, 38:5–43); Ex. 1003 ¶ 325. Concerning claims 4 and 17, Petitioner asserts “[t]hese limitations are akin to the limitation in *Ex [p]arte James* directed to receiving transaction data from a remote bank computer server system, which was found to be patent ineligible.” Pet. 90–91 (citing *Ex parte James*, 2019 WL 2763407, at *16); Ex. 1003 ¶ 326.

Patent Owner argues in Step 2A that each of claims 3, 4, and 17 “when considered as a whole, recite that particular types of information (*i.e.*, information that *indicates completion of the transaction between the user of the mobile device and the payment accepting unit* (claim 3) and *includes an amount of the completed transactions* (claims 4 and 17)) are exchanged” utilizing “particular hardware (*i.e.*, *one or more radio transceivers[]*).” PO Resp. 76–77; Ex. 2008 ¶ 138. Patent Owner asserts claims 4 and 17 further specify “that the information is also sent to *a server via [a] long-range transceiver.*” PO Resp. 77; Ex. 2008 ¶ 138. Patent Owner argues in Step 2B that Petitioner’s obviousness analysis “fails to identify any support

that these limitations, when considered as a whole, were well-understood, routine, and conventional.” PO Resp. 77 (citing *id.* at 37–42, 49–50); Ex. 2008 ¶ 138.

Concerning claim 3, Petitioner replies that “Patent Owner made similar arguments in [PGR2021-00093], which the Board properly rejected.” Pet. Reply 25–26 (citing PGR2021-00093, Paper 38, at 34–35, 44–45). Concerning claims 4 and 17, Petitioner replies “the Board [in PGR2021-00093] already concluded that the additional limitations in nearly identical claims did not add ‘meaningful limitations to the judicial exception and that the claimed subject matter of each of those claims is patent ineligible.’” *Id.* at 26 (citing Ex 1011; PGR2021-00093, Paper 38, at 45–46). Further: “These claims are also analogous to those found ineligible in” *Ex parte James*. *Id.* (citing *Ex parte James*, 2019 WL 2763407, at *7–8).

Patent Owner responds as with claims 2 and 16 discussed above. *See* PO Sur-reply 26.

In Step 2A, we conclude claims 3, 4, and 17 are each directed to the abstract idea of identifying a merchant and enabling completion of a purchase from the merchant, as discussed above in relation to claim 1. The dependent claim limitations fail to integrate that abstract idea into a practical application because exchanging information to indicate completion of the transaction (as in claim 3) and an amount of the completed transaction (as in claims 4 and 17) adds only insignificant extra-solution activity to the abstract idea. *See* MPEP § 2106.04(d)(I) (“[a]dding insignificant extra-solution activity to the [abstract idea]” does not integrate the abstract idea into a practical application); *id.* § 2106.05(g) (“**Mere Data Gathering**” is extra-solution activity that does not integrate an abstract idea into a

practical application); *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.”).

Moreover, the “long-range transceiver” recited in claim 4 is claimed simply as a generic component performing its ordinary function of data exchange, and is not recited as having any specific structure. For example, Patent Owner does not cite and we do not find any disclosure in the ’920 patent specification that the claimed long-range transceiver is anything other than a generic component for data exchange. *See, e.g.*, Ex. 1001, 2:66–3:6, 9:43–10:2, 10:39–42, 13:41–58, 14:10–17, 15:1–6, 15:54–59.

Turning to each of claims 3, 4, and 17 as a whole, the claims do not specify how notifying the mobile device that the transaction is complete (as in claim 3) including the amount (as in claims 4 and 17), or notifying the server of the amount (as in claims 4 and 17), might improve the functioning of the overall system. *See* MPEP § 2106.04(d) (“claims that improve the functioning of a computer or other technology or technological field” integrate an abstract idea into a practical application); *see also id.* § 2106.04(d)(1) & § 2106.05(a) (discussing this principle in detail); 2025 Guidance, at 4 (“**Improvements consideration**”). An “important consideration” in this context “is the extent to which the claim covers a particular solution to a problem or a particular way to achieve a desired outcome, as opposed to merely claiming the idea of a solution or outcome.” 2025 Guidance, at 4. Because claims 3, 4, and 17 stop at transmitting information, without specifying how that information is used upon receipt, they merely claim the idea of a solution or outcome rather than covering the

solution to a problem or providing a particular way to achieve a desired outcome.

In other words, the exchange of information recited in these claims is not a practical application of anything. The claims instead are “a drafting effort designed to monopolize” the abstract idea which does not “apply, rely on, or use the [abstract idea] in a manner that imposes a meaningful limit on the [abstract idea].” MPEP § 2106.04(d); *see also Mobile Acuity*, 110 F.4th at 1292–93; *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1316 (Fed. Cir. 2016) (patent owner argued the claimed email filtering system improved technology by shrinking the protection gap and mooting the volume problem, but the Court disagreed because the claims themselves did not have any limitations that addressed these issues).

In Step 2B, we conclude the additional limitations in claims 3, 4, and 17 do not transform the abstract idea into an inventive concept by amounting to significantly more than the abstract idea, either alone or in combination with other claim elements. *See, e.g.*, MPEP § 2106.05. We rely principally on our reasoning in Step 2A as also applying here in Step 2B. *See id.* § 2106.04(d)(I) (“Step 2A Prong Two is similar to Step 2B in that both analyses involve evaluating a set of judicial considerations to determine if the claim is eligible,” and “most of these considerations overlap (i.e., they are evaluated in both Step 2A Prong Two and Step 2B).”) & § 2106.05(II).

Thus, we need not and we do not reach the issue of whether the additional information exchange limitations in claims 3, 4, and 17 represent well-understood, routine, and conventional activity in the field. *See, e.g., id.* § 2106.05 (listing various factors to consider in Step 2B, only one of which

is well-understood, routine, and conventional activity in the field). We do add for Step 2B, however, that the “long-range transceiver” recited in claim 4 is described in the ’920 patent specification as a generic hardware component that is well-known in the field. *See, e.g.*, Ex. 1001, 2:66–3:6, 9:43–10:2, 10:39–42, 13:41–58, 14:10–17, 15:1–6, 15:54–59.

We conclude Petitioner has shown claims 3, 4, and 17 are unpatentable as claiming ineligible subject matter under 35 U.S.C. § 101.

6. *Claims 5, 6, 18, and 19*

Claim 5 of the ’920 patent depends from claim 1 to add that the information exchanged with the payment accepting unit “indicates abortion of the transaction initiated by the user of the mobile device.” Ex. 1001, 47:42–44 (parent claim 1), 47:65–67 (claim 5). Claim 18 depends from independent claim 15 and recites the same limitation as claim 5. *See id.* at 50:29–31.

Claim 6 of the ’920 patent depends from claim 1 to add that the information exchanged with the payment accepting unit “indicates failure of the transaction initiated by the user of the mobile device or a malfunction associated with the available payment accepting unit.” *Id.* at 48:1–4. Claim 19 depends from independent claim 15 and recites the same limitation as claim 6. *See id.* at 50:32–36.

Petitioner argues claims 5, 6, 18, and 19 do not add meaningful limitations to the abstract idea of the independent claims. *See* Pet. 88 (citing PGR2021-00093, Paper 38, at 44–46). Petitioner particularly asserts “[n]one of these claims improve the technology used to exchange information and each of these claims could be performed by a merchant delivering the same

information verbally.” *Id.* at 91 (citing PGR2021-00093, Paper 38, at 44–45; *Ex parte James*, 2019 WL 2763407, at *6–8); Ex. 1003 ¶ 327.

Patent Owner argues in Step 2A that Petitioner ignores that claims 5, 6, 18, and 19 “specify the particular components and hardware by which the information is exchanged (*i.e.*, between the mobile device and the available payment accepting unit via the one or more radio transceivers),” and that “Petitioner presents no evidence that these limitations ‘could be performed by a merchant delivering the same information verbally.’” PO Resp. 77–78 (citing Pet. 91); Ex. 2008 ¶ 139. Patent Owner argues in Step 2B that there is “no evidence” indicating the limitations of these dependent claims “as a whole, were well-understood, routine, and conventional.” PO Resp. 78 (citing Pet. 91); Ex. 2008 ¶ 139.

Petitioner replies that “the Board [in PGR2021-00093] already concluded that the additional limitations in nearly identical claims did not add ‘meaningful limitations to the judicial exception and that the claimed subject matter of each of those claims is patent ineligible.’” Pet. Reply 26 (citing Ex. 1011; PGR2021-00093, Paper 38, at 45–46). Further: “These claims are also analogous to those found ineligible in” *Ex parte James*. *Id.* (citing *Ex parte James*, 2019 WL 2763407, at *7–8).

Patent Owner responds as with claims 2 and 16 discussed above. *See* PO Sur-reply 26.

In Step 2A, we conclude claims 5, 6, 18, and 19 are each directed to the abstract idea of identifying a merchant and enabling completion of a purchase from the merchant, as discussed above in relation to claim 1. The dependent claim limitations fail to integrate that abstract idea into a practical application because exchanging information to indicate abortion or failure of

the transaction, or malfunction of the payment accepting unit, adds only insignificant extra-solution activity to the abstract idea. *See* MPEP § 2106.04(d)(I) (“[a]dding insignificant extra-solution activity to the [abstract idea]” does not integrate the abstract idea into a practical application); *id.* § 2106.05(g) (“**Mere Data Gathering**” is extra-solution activity that does not integrate an abstract idea into a practical application); *buySAFE*, 765 F.3d at 1355.

Turning to each of claims 5, 6, 18, and 19 as a whole, the claims do not specify how notifying the mobile device that the transaction has been aborted or has failed, or notifying the mobile device that the payment accepting unit has malfunctioned, might improve the functioning of the overall system. *See* MPEP § 2106.04(d) (“claims that improve the functioning of a computer or other technology or technological field” integrate an abstract idea into a practical application); *see also id.* § 2106.04(d)(1) & § 2106.05(a) (discussing this principle in detail); 2025 Guidance, at 4 (“**Improvements consideration**”). An “important consideration” in this context “is the extent to which the claim covers a particular solution to a problem or a particular way to achieve a desired outcome, as opposed to merely claiming the idea of a solution or outcome.” 2025 Guidance, at 4. Because claims 5, 6, 18, and 19 stop at transmitting information, without specifying how that information is used upon receipt, they merely claim the idea of a solution or outcome rather than covering the solution to a problem or providing a particular way to achieve a desired outcome.

In other words, the exchange of information recited in these claims is not a practical application of anything. The claims instead are “a drafting

effort designed to monopolize” the abstract idea which does not “apply, rely on, or use the [abstract idea] in a manner that imposes a meaningful limit on the [abstract idea].” MPEP § 2106.04(d); *see also Mobile Acuity*, 110 F.4th at 1292–93; *Intellectual Ventures v. Symantec*, 838 F.3d at 1316.

In Step 2B, we conclude the additional limitations in claims 5, 6, 18, and 19 do not transform the abstract idea into an inventive concept by amounting to significantly more than the abstract idea, either alone or in combination with other claim elements. *See, e.g.*, MPEP § 2106.05. We rely on our reasoning in Step 2A as also applying here in Step 2B. *See id.* § 2106.04(d)(I) (“Step 2A Prong Two is similar to Step 2B in that both analyses involve evaluating a set of judicial considerations to determine if the claim is eligible,” and “most of these considerations overlap (i.e., they are evaluated in both Step 2A Prong Two and Step 2B).”) & § 2106.05(II). Thus, we need not and we do not reach the issue of whether the additional information exchange limitations in claims 5, 6, 18, and 19 represent well-understood, routine, and conventional activity in the field. *See, e.g., id.* § 2106.05 (listing various factors to consider in Step 2B, only one of which is well-understood, routine, and conventional activity in the field).

We conclude Petitioner has shown claims 5, 6, 18, and 19 are unpatentable as claiming ineligible subject matter under 35 U.S.C. § 101.

7. Claim 7

Claim 7 of the ’920 patent recites:

7. The method of claim 1, wherein the mobile device includes an accelerometer and the method further comprises:
 - based on data from the accelerometer, determining whether the user is walking away from the available payment accepting unit; and

in accordance with a determination that the user is walking away from the available payment accepting unit, canceling the wireless communication path.

Ex. 1001, 48:5–13.

Petitioner argues the claimed “accelerometer to detect when a user has departed and then to cancel the transaction . . . is no different than ending a transaction when a customer walks out of a store.” Pet. 92 (citing Ex. 1001, 48:5–13). Petitioner also asserts that “using a standard accelerometer inherent to a mobile device to detect movement was already well-known.” *Id.* (citing Ex. 1001, 8:62–9:30, 11:21–25; Ex. 1006, 13:28–35; Ex. 1008, 7:61–8:3; *Ex parte James*, 2019 WL 2763407, at *16); Ex. 1003 ¶¶ 331–333.

Patent Owner argues in Step 2A that claim 7 “recites the use of data from a particular hardware component (*i.e.*, *an accelerometer*) to make a specific determination (*i.e.*, *whether the user is walking away from the available payment accepting unit*) and *canceling the wireless communication path* . . . upon a determination that the user is walking away.” PO Resp. 78; Ex. 2008 ¶ 140. Patent Owner also asserts Petitioner fails to explain “why this specific combination of features ‘is no different than ending a transaction when a customer walks out of a store.’” PO Resp. 78–79 (quoting Pet. 92).

Patent Owner argues in Step 2B that there is “no evidence” indicating that the subject matter of claim 7 “was disclosed in the art [*i.e.*, Low, Arora, and Freeny],” and Petitioner “fails to show that the use of an accelerometer **as specifically claimed** was well-known.” PO Resp. 45–47, 78–79. Patent Owner cites *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1348–49

(Fed. Cir. 2017), as “finding eligible claims ‘that use inertial sensors in a non-conventional manner.’” PO Resp. 79.

Petitioner replies that “[c]laim 7’s recitation of a standard accelerometer ‘as specifically claimed’ in a conventional mobile device to detect movement and determine that a user is walking away from a vending machine was already well-known and conventional,” as evidenced by Dr. Neuman’s testimony and “certain prior art.” Pet. Reply 26–27 (citing Ex. 1003 ¶¶ 282–286, 330–333); *Ex parte James*, 2019 WL 2763407, at *16).

Patent Owner responds as with claims 2 and 16 discussed above. *See* PO Sur-reply 26.

In PGR2021-00093, the Board determined that the petitioner had not proven unpatentable a claim with nearly identical limitations. *See* PGR2021-00093, Paper 38 at 45–46; Ex. 1011, 5 (noting the only difference is that claim 7 of the ’920 patent recites “canceling the wireless communication path,” whereas the claim in PGR2021-00093 recited “canceling the wireless connection”). We reach the same determination.

In Step 2A, we are not persuaded that claim 7 is directed to the same abstract idea as parent claim 1 of identifying a merchant and enabling completion of a purchase from the merchant. Petitioner argues that the claim 7 limitations are “no different than ending a transaction when a customer walks out of a store.” Pet. 92. Petitioner, however, provides no explanation why and Dr. Neuman does not address the issue in his declaration. *See id.* Petitioner’s analogy also does not accurately characterize the claim language. *See McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016) (we “‘must be careful to

avoid oversimplifying the claims’ by looking at them generally and failing to account for the specific requirements of the claims”). Claim 7 recites “canceling the wireless communication path” — not ending a transaction — based on a determination that the user is walking away. The wireless communication path is established in Limitation [1.8], after which user interaction with the user interface is enabled “to complete a transaction” with the selected payment accepting unit in Limitation [1.9]. In other words, establishing a wireless communication path begins a period of time when the user is able to complete a transaction. *See* Ex. 1001, 21:13–22, 26:23–35, Fig. 9C (depicting a determination as to whether the user has walked away at block 328, prior to the user performing a transaction by selecting an item at block 334). It does not begin a transaction itself, such that the transaction would “end” when the user walks away as Petitioner contends. Therefore, Petitioner’s analogy to a customer walking out of a store is unpersuasive.

We agree with Patent Owner that the instant facts are similar to those of *Thales*, where the Federal Circuit determined that the claims at issue “use[d] inertial sensors *in a non-conventional manner* to reduce errors in measuring the relative position and orientation of a moving object on a moving reference frame” and thus were not directed to an abstract idea. *See Thales*, 850 F.3d at 1348–49 (emphasis added); PO Resp. 79. Rather than using an accelerometer to detect movement of a device generally, claim 7 recites a particular way of using an accelerometer (determining whether a user is “walking away” from an available payment accepting unit) and taking a particular action (canceling a wireless communication path that had been established previously) based on the determination with the accelerometer. *See Ollnova Techs. Ltd. v. ecobee Techs. ULC*, 177 F.4th

1343, 1361 (Fed. Cir. 2026) (determining that the claims at issue “do not merely describe collecting and communicating data in the abstract,” but rather “recite a particular technique governing when and how information is transmitted within a network using a wireless automation device” (emphasis omitted)); *Thales*, 850 F.3d at 1349 (determining that the claims at issue “specify a particular configuration of inertial sensors and a particular method of using the raw data from the sensors in order to” achieve a particular result). In that respect, claim 7 also is different from the other dependent claims discussed herein, which only recite information exchange or add insignificant extra-solution activity to the abstract idea. *See* Sections IV.F.3–.6, IV.F.9; 2025 Guidance, at 4 (distinguishing claims that recite “a particular way to achieve a desired outcome” from those that “merely claim[] the idea of a solution or outcome”).

Even if Petitioner had made a sufficient showing at Step 2A, though, Petitioner has not shown sufficiently at Step 2B that the additional limitations in claim 7 do not transform the alleged abstract idea into a patent-eligible concept. Petitioner argues that “using a standard accelerometer inherent to a mobile device to detect movement was already well-known.” Pet. 92. But that assertion is not commensurate with the claim language. Claim 7 does not recite using an accelerometer to detect movement. Rather, it requires a determination as to “whether the user is *walking away* from the available payment accepting unit” “based on data from [an] accelerometer” and, “in accordance with a determination that the user is *walking away* from the available payment accepting unit, canceling the wireless communication path” (emphasis added). Petitioner does not explain how the particular recited use of an accelerometer to detect that a

user is “walking away” from a payment accepting unit and canceling a wireless communication path based on that determination — as opposed to merely the use of an accelerometer itself, which detects movement — was well-understood, routine, and conventional and is not indicative of an innovative concept.

Nor does the evidence cited by Petitioner and Dr. Neuman show that the recited steps were well-understood, routine, and conventional. *See* Pet. 92 (citing Ex. 1001, 8:62–9:30, 11:21–25; Ex. 1006, 13:28–35; Ex. 1008, 7:61–8:3; Ex. 1003 ¶¶ 331–333; *Ex parte James*, 2019 WL 2763407, at *16); Ex. 2008 ¶ 140. The cited portions of the ’920 patent specification describe mobile device 150 and state that mobile devices can be “smart phones, tablet or laptop computers, or personal digital assistants (PDAs), smart cards, or other technology (e.g., a hardware-software combination) known or yet to be discovered that has structure and/or capabilities similar to the mobile devices described herein,” where an “app” on the mobile device can be “any software program(s) capable of implementing the features described herein.” Ex. 1001, 8:63–9:30. The Specification also discloses that “accelerometer data (e.g., is the user moving or stationary) . . . may . . . be logged.” *Id.* at 11:21–25. These portions show, at most, that a mobile device can have an accelerometer. They do not pertain to the particular recited use of an accelerometer to determine that a user is “walking away” from a payment accepting unit or canceling a wireless communication path based on such a determination.

Arora likewise does not support Petitioner’s position. Arora discloses “[d]etermining customer 17 location [using] one or more technologies,” such as GPS, cellular geolocation, vision based location determination, manual

location entry, or “inertial guidance,” which “may use an accelerometer and other sensors in the customer 17’s personal electronic device 18.” Ex. 1006, 13:28–35. Arora “determine[s] whether or not a customer is within a particular transaction distance of a particular vending machine or vending group.” *Id.* at 12:41–13:5 (describing various exemplary distances away from a vending machine, i.e., “dispensing” distance, “identification” distance, “within sight” distance, and “potential buyer” distance), 18:39–42, Figs. 1, 6 (step 90). In the context of Figure 6, a “message appropriate to the potential transaction is sent to the customer” when the customer is within the “transaction distance” (step 92), then the system “waits for a customer response” (step 94) and checks again whether the customer is within the “transaction distance” if “no response is received within a timeout period” or, if the customer does respond, waits until the customer is within a “dispensing distance” (step 97). *Id.* at 18:44–19:4. Arora, therefore, periodically determines a customer’s distance from a vending machine to determine whether that distance is within a predetermined range. It does not use an accelerometer to determine how a customer is moving relative to the vending machine or make a determination that the customer is “walking away” from the vending machine.

Neither does Casey. The cited portion of Casey merely states that its motion sensing device 62 “may be any device configured to measure motion or acceleration, such as an accelerometer,” and “may be configured to sense and measure various types of motion including, but not limited to, velocity, acceleration, rotation, and direction.” Ex. 1008, 7:61–8:3. The ability to use an accelerometer generally to sense direction does not mean that the particular recited use to determine that a user is “walking away” from a

payment accepting unit and canceling a wireless communication path based on that determination were well-understood, routine, and conventional. Petitioner's evidence and argument are insufficient because they do not account for the specific use of an accelerometer recited in claim 7 (as opposed to just the use of an accelerometer generally).

We determine Petitioner fails to articulate adequately and with particularity why dependent claim 7 is unpatentable. Petitioner has not shown, by a preponderance of the evidence, that claim 7 is unpatentable as claiming ineligible subject matter under 35 U.S.C. § 101.

8. *Claims 8, 9, 11, 12, 14, and 20*

Petitioner provides arguments and evidence contending claims 8, 9, 11, 12, 14, and 20 of the '920 patent are unpatentable as claiming ineligible subject matter under 35 U.S.C. § 101. *See* Pet. 88–90 (claim 8), 91 (claim 9), 92 (claim 14), 92–93 (claims 11, 12 and 20); Ex. 1003 ¶¶ 325, 328, 330, 334–337.

Patent Owner does not argue for the patentability of these claims separately from their parent independent claims. *See* PO Resp. 75–79 (arguments directed to dependent claims); Pet. Reply 25.

We have reviewed Petitioner's arguments and cited supporting evidence concerning these claims, as cited above. We are persuaded by the arguments, so we adopt them as our own in this Decision, and we conclude Petitioner has shown the claims are unpatentable as claiming ineligible subject matter under 35 U.S.C. § 101.

Concerning claim 11 in particular, as noted above in Section IV.F.2(a)(ii) in relation to collateral estoppel, an analogous claim 11 in the

'614 patent survived an eligibility challenge in PGR2021-00093. However, the gist of the Board's decision was that the petitioners there (KioSoft and TechTrex) had failed to explain why the analogous claim 11 was patent ineligible under § 101, not that the analogous claim 11 was in fact patent eligible under § 101. *See* PGR2021-00093, Paper 38, at 46–47. Therefore, the decision in PGR2021-00093 has little bearing in this case, which was brought by a different petitioner with different unpatentability contentions.

9. *Claim 10*

Claim 10 of the '920 patent depends from claim 1 to add that the user interface of the mobile device “after establishing the wireless communication path [with the payment accepting unit], indicates that the wireless communication path has been established.” Ex. 1001, 47:28–32 (parent claim 1), 48:22–26 (claim 10).

Petitioner argues claim 10 does not add meaningful limitations to the abstract idea of its parent claim 1. *See* Pet. 88 (citing PGR2021-00093, Paper 38, at 44–46). In support, Petitioner asserts claim 10 “recites a generic notification that a conventional communication path has been established,” does not “improve the technology used to exchange information,” and “could be performed by a merchant delivering the same information verbally.” *Id.* at 91 (citing PGR2021-00093, Paper 38, at 44–45; *Ex parte James*, 2019 WL 2763407, at *6–8); Ex. 1003 ¶ 329.

Patent Owner argues in Step 2A that Petitioner “ignores that claim 10 specifies information indicating that *the wireless communication path* (not any ‘conventional communication path,’ as characterized by Petitioner) has been established.” PO Resp. 77; Ex. 2008 ¶ 139. Claim 10 further specifies,

according to Patent Owner, “the particular devices and hardware that are included as part of the path (*i.e., the mobile device and the available payment accepting unit of the one or more payment accepting units* that is established *via the one or more radio transceivers[]*.” PO Resp. 77–78; Ex. 2008 ¶ 139. Moreover: “Petitioner presents no evidence that these limitations ‘could be performed by a merchant delivering the same information verbally.’” PO Resp. 78 (citing Pet. 91); Ex. 2008 ¶ 139. Patent Owner argues in Step 2B that there is “no evidence” indicating the limitations of claim 10 “as a whole, were well-understood, routine, and conventional.” PO Resp. 78 (citing Pet. 91); Ex. 2008 ¶ 139.

Petitioner replies that “the Board [in PGR2021-00093] already concluded that the additional limitations in nearly identical claims did not add ‘meaningful limitations to the judicial exception and that the claimed subject matter . . . is patent ineligible.’” Pet. Reply 26 (citing Ex. 1011; PGR2021-00093, Paper 38, at 45–46). Further according to Petitioner, claim 10 also is “analogous to [claims] found ineligible in” *Ex parte James*. *Id.* (citing *Ex parte James*, 2019 WL 2763407, at *7–8).

Patent Owner responds as with claims 2 and 16 discussed above. *See* PO Sur-reply 26.

In Step 2A, we conclude claim 10 is directed to the abstract idea of identifying a merchant and enabling completion of a purchase from the merchant, as discussed above in relation to claim 1. The dependent claim limitation fails to integrate that abstract idea into a practical application because notifying the user that a wireless communication path has been established between the mobile device and a payment accepting unit adds only insignificant extra-solution activity to the abstract idea. *See* MPEP

§ 2106.04(d)(I) (“[a]dding insignificant extra-solution activity to the [abstract idea]” does not integrate the abstract idea into a practical application); *id.* § 2106.05(g) (“An example of post-solution activity is an element that is not integrated into the claim as a whole, *e.g.*, a printer that is used to output a report . . .”).

Moreover, simply notifying the user that the wireless communication path has been established does not improve the functioning of the mobile device or the payment accepting unit. *See* MPEP § 2106.04(d) (“claims that improve the functioning of a computer or other technology or technological field” integrate an abstract idea into a practical application); *see also id.* § 2106.04(d)(1) & § 2106.05(a) (discussing this principle in detail); 2025 Guidance, at 4 (“***Improvements consideration***”). An “important consideration” in this context “is the extent to which the claim covers a particular solution to a problem or a particular way to achieve a desired outcome, as opposed to merely claiming the idea of a solution or outcome.” 2025 Guidance, at 4. Claim 10 falls into the latter category, by merely updating the user as to the status of the wireless communication path.

In other words, notifying the user that the wireless communication path has been established is not a practical application of anything. Claim 10 instead is “a drafting effort designed to monopolize” the abstract idea which does not “apply, rely on, or use the [abstract idea] in a manner that imposes a meaningful limit on the [abstract idea].” MPEP § 2106.04(d); *see also Mobile Acuity*, 110 F.4th at 1292–93; *Intellectual Ventures v. Symantec*, 838 F.3d at 1316.

In Step 2B, we conclude the additional limitation in claim 10 does not transform the abstract idea into an inventive concept by amounting to

significantly more than the abstract idea, either alone or in combination with other claim elements. *See, e.g.*, MPEP § 2106.05. We rely on our reasoning in Step 2A as also applying here in Step 2B. *See id.* § 2106.04(d)(I) (“Step 2A Prong Two is similar to Step 2B in that both analyses involve evaluating a set of judicial considerations to determine if the claim is eligible,” and “most of these considerations overlap (i.e., they are evaluated in both Step 2A Prong Two and Step 2B).”) & § 2106.05(II). Thus, we need not and we do not reach the issue of whether the additional limitation in claim 10 represents well-understood, routine, and conventional activity in the field. *See, e.g., id.* § 2106.05 (listing various factors to consider in Step 2B, only one of which is well-understood, routine, and conventional activity in the field).

We conclude Petitioner has shown claim 10 is unpatentable as claiming ineligible subject matter under 35 U.S.C. § 101.

V. SUMMARY OF CONCLUSIONS

In summary, we conclude Petitioner has demonstrated the unpatentability of claims 1–6 and 8–20 of the ’920 patent, but not claim 7, as shown in the following table.¹¹

¹¹ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–10, 12–20	103	Low, Arora, Freeny		1–10, 12–20
11	103	Low, Arora, Freeny, Casey		11
1–20	101	Eligibility	1–6, 8–20	7
Overall Outcome			1–6, 8–20	7

VI. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–6 and 8–20 of the '920 patent have been proven by a preponderance of the evidence to be unpatentable;

FURTHER ORDERED that claim 7 of the '920 patent has not been proven by a preponderance of the evidence to be unpatentable; and

FURTHER ORDERED that, because this is a final written decision, parties to this proceeding seeking judicial review of our Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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