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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FREDERIC DARGUESSE, MARK MORWOOD, and BRIAN MCALPINE

Appeal 2018-004045
Application 13/063,678
Technology Center 3600

Before JOSEPH L. DIXON, JAMES W. DEJMEK, and STEPHEN E. BELISLE, *Administrative Patent Judges*.

Opinion for the Board filed by *Administrative Patent Judge*, JOSEPH L. DIXON.

Opinion dissenting filed by *Administrative Patent Judge*, JAMES W. DEJMEK.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants[1] appeal under 35 U.S.C. § 134(a) from a rejection of claims 12–35. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

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[1] Appellants indicate that Qualcomm Incorporated is the real party in interest. (App. Br. 3).

The claims are directed to a device, system and method for providing contextualized medical data. Claim 12, reproduced below, is illustrative of the claimed subject matter:

12. A point of care device, comprising:

a memory;
a display;

a medical device communication port;

a reader configured to receive item identification information originating from at least one item;

a processor coupled to the memory, display, medical device communication port, and the reader, configured with processor-executable instructions to perform operations comprising:

receiving a patient ID from a patient transmitter;

associating the point of care device with the patient ID when it is determine[d] that the point of care device is within range of the patient transmitter for a period of time longer than a first pre-set delay;

determining whether the at least one item is within range of the reader for a period of time longer than the first pre-set delay;

associating the at least one item with the point of care device that is associated with the patient in response to determining that the at least one item is within the range of the reader for the period of time longer than the first pre-set delay;

generating association data in response to associating the at least one item with the point of care device that is associated with the patient ID;

> receiving, via the medical device communication port, medical data originating from at least one medical device including at least one of an infusion pump, a respirator, a vital sign monitor, or an EEG;
>
> generating contextualized medical data based on the medical data and the association data, wherein the contextualized medical data provides information regarding context of the medical data with respect to the patient ID;
>
> transmitting, via a communication network, the contextualized medical data to a server having a database storing item information; and
>
> transmitting, via the medical device communication port, the contextualized medical data to the at least one medical device to cause the at least one medical device to adjust one or more settings based on the received contextualized medical data.

REJECTION

The Examiner made the following rejection:

Claims 12–35 stand rejected under 35 U.S.C. § 101 because the claimed invention is (1) directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea); and (2) not directed to significantly more than the abstract idea itself.

ANALYSIS

35 U.S.C. § 101

An invention is patent eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101.

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

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court's two-step framework, described in *Mayo* and *Alice*. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217–18 (2014) (citing *Mayo*, 566 U.S. at 75–77). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 218–19 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.,* the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding . . . rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); "tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that "[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 176; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Supreme Court also indicated that a claim "seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citing *Benson* and *Flook*); *see, e.g.*, *id.* at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (internal quotation marks omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

The PTO recently published revised guidance on the application of § 101. USPTO's January 7, 2019 Memorandum, 84 Fed. Reg. 50, 2019

Revised Patent Subject Matter Eligibility Guidance ("Revised Guidance"). Under that guidance, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
>
> (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)) (9th ed. 2018).

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

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

See Revised Guidance.

With respect to independent claims 12, 22, and 32, Appellants present arguments directed to independent claim 12. Because we find the limitations to be similar for the three independent claims, we will address independent claim 12 as the illustrative claim and the same line of reasoning applies to independent claims 22 and 32 and their respective dependent claims.

STEP 1 of the Revised Guidance

Claim 12, as a point of care device claim, recites one of the enumerated categories of statutory subject matter in 35 U.S.C. § 101, namely, a machine. The issue before us is whether it is directed to a judicial exception without significantly more.

STEP 2A, Prong 1 of the Revised Guidance

The Examiner finds claim 12 is directed to a judicial exception, in particular:

> The abstract ideas recited in the claims include, for example, using categories to organize, store, and transmit information, etc.; collecting and comparing known information; obtaining and comparing intangible data; comparing new and stored information and using rules to identify options; comparing data to determine a risk level; and/or organizing information through mathematical correlations. For example, independent claims 12 and similarly 22 and 32 are directed, in part, to receiving a patient ID from a patient transmitter; associating the point of care device with the patient ID when it is determined that the point of care device in within range of the patient transmitter for a period of time longer than a first pre-set delay; determining whether the at least one item is within range of the reader for a period of time longer than the first pre-set delay; associating the at least one item with the point of care device that is associated with the patient; generating association data in response to associating the at least one item with the point of care device that is associated with the patient ID; receiving medical data originating from at least one medical device; generating contextualized medical data based on the medical data and the association data, wherein the contextualized medical data provides information regarding context of the medical data with respect to the patient ID; transmitting the contextualized medical data to a server having a database storing item information; and transmitting the contextualized medical data to the at least one medical device to

> cause the at least one medical device to adjust one or more settings based on the received contextualized medical data.

(Final Act. 2–3; Ans. 3).

With respect to illustrative independent claim 12, Appellants contend the Examiner erred because

> the Examiner's assertion that claims 12-35 recite "are similar to USING CATEGORIES TO ORGANIZE, STORE AND TRANSMIT INFORMATION and COMPARING NEW AND STORED INFORMATION AND USING RULES TO IDENTIFY OPTIONS" overly generalizes the recited claim elements. *See* Final Office Action, p. 3 (emphasis in original). Appellants respectfully submit that this is an improper characterization of the claims at a high level of abstraction that is untethered from the language of the claims.

(App. Br. 10; *see also* Final Act. 3). Appellants further contend:

> [T]he independent claims recite elements that do not recite any human activity, much less a method of organizing human activity. Thus, in contrast to the assertion in the Final Office Action, the claims are not directed to organizing human activity. *See* Final Office Action, pp. 2-4. For example, the independent claims recite operations for automatically detecting medical devices in proximity to a patient and automatically associating those medical devices with the patient, collecting medical data from the medical devices associated with the patient, and adjusting one or more settings of at least one of the medical devices based on the collected and contextualized data.

(App. Br. 11).

We agree with Appellants that the Examiner's subject matter eligibility rejection errs in the conclusion regarding the abstract idea, and the Examiner's corresponding analysis based thereon did not show that the claimed invention was not directed to patent-eligible subject matter. We find the claimed invention is directed to a particular sequence of steps which

"determine[s] that the point of care device is within range of the patient transmitter for a period of time longer than a first pre-set delay," and causes "at least one medical device to adjust one or more settings based on the received contextualized medical data."

The Examiner further opines with the analysis under Step 2B, discussed below, that "it is respectfully submitted that aside from the incidental use of well-known computer technology (e.g., general purpose computer technology) to, for example, automate well-known manual activities (e.g., process data, adjust settings of devices, etc.), the claimed invention could be performed with pen and paper and/or in the human mind." (Ans. 5).

Appellants contend

> the recited element of "transmitting, via a communication network, the contextualized medical data to a server" and "transmitting, via the medical device communication port, the contextualized medical data to the at least one medical device to cause the at least one medical device to adjust one or more settings based on the received contextualized medical data," are elements that clearly cannot be performed with pen and paper or in the human mind.

(Reply Br. 3).

We find Appellants' arguments persuasive.

We are mindful of the Court's proscription of characterizing the claims at too high a level of abstraction and untethered from the language of the claims. *See Alice*, 573 U.S. at 217 (noting "we tread carefully in construing this exclusionary principle [of laws of nature, natural phenomena, and abstract ideas] lest it swallow all of patent law"); *cf. Diamond v. Diehr*, 450 U.S. 175, 189 n.12 (1981) (cautioning that overgeneralizing claims, "if carried to its extreme, make[s] all inventions unpatentable because all

inventions can be reduced to underlying principles of nature which, once known, make their implementation obvious"). We also are mindful not to exaggerate the reasonable capacity of the human mind to perform concepts as a practical matter.

Claim 12 is directed to a "point-of-care device" that performs, *inter alia*, the operations of "*transmitting,* via the medical device communication port, the contextualized medical data to the at least one medical device to cause the at least one medical device to *adjust one or more settings based on the received contextualized medical data*". (App. Br. 12).

Appellants further contend:

> The claims specifically recite operations that are impossible for a human caregiver to carry out. For example, the recited claim element of "caus[ing] the at least one medical device to adjust one or more settings based on the received contextualized medical data" indicates that the medical data transmitted to a medical device causes the medical device to modify one or more settings, and as such is impossible for a human caregiver to carry out.

(App. Br. 12).

We find the operations for automatically detecting medical devices in proximity to a patient and automatically associating those medical devices with the patient, collecting medical data from the medical devices associated with the patient, and adjusting one or more settings of at least one of the medical devices based on the collected and contextualized data do not fall into any of the subcategories of abstract ideas enumerated in the Revised Guidance, namely, (1) mathematical concepts, like mathematical relationships, formulas, equations, or calculations; (2) certain methods of organizing human activity, like fundamental economic principles or practices, commercial or legal interactions, or managing personal behavior

or relationships or interactions between people; and (3) mental processes, as discussed below. Revised Guidance at 52.

In particular, the claimed steps in claim 12 do not define any mathematical relationships, formulas, equations, or calculations. We determine the adjusting the one or more settings of at least one of the medical devices in claim 12 are not naked mathematical abstractions, but are part of a procedure for adjusting one or more settings of at least one of the medical devices based on the collected and contextualized data.

Similarly, detecting medical devices in proximity to a patient, automatically associating those medical devices with the patient, and collecting medical data from the medical devices associated with the patient, in claim 12, do not define any of the enumerated subcategories of certain methods of organizing human activity. Rather than organizing any economical, commercial, legal, or human-based activity, the claimed detecting medical devices in proximity to a patient, automatically associating those medical devices with the patient, and collecting medical data from the medical devices associated with the patient are performed without relation to organizing any human activity.

In addition, we find detecting medical devices in proximity to a patient, automatically associating those medical devices with the patient, and collecting medical data from the medical devices associated with the patient, for a "point-of-care device" that performs the operations of "transmitting, via the medical device communication port, the contextualized medical data to the at least one medical device to cause the at least one medical device to adjust one or more settings based on the received contextualized medical data" as a practical matter, reasonably could not be performed entirely in a

human's mind. *See Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859, 868 (Fed. Cir. 2010) (a method for rendering a halftone image of a digital image by comparing, pixel by pixel, the digital image against a blue noise mask was found to recite patent-eligible subject matter because the method could not, as a practical matter, be performed entirely in a human's mind); *SiRF Tech., Inc. v. Int'l Trade Comm'n.*, 601 F.3d 1319, 1331–33 (Fed. Cir. 2010) (a method for calculating an absolute position of a GPS receiver and an absolute time of reception of satellite signals was found to recite patent-eligible subject matter because there was "no evidence . . . that the calculations here [could] be performed entirely in the human mind"); *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016) (holding the claimed "specific type of data structure designed to improve the way a computer stores and retrieves data in memory" is patent eligible).

As a result, we conclude that the claimed invention is not directed to one of the enumerated categories of abstract ideas as set forth in the Revised Guidance, and we are persuaded the Examiner erred in concluding claim 12 is directed to an abstract idea, because claim 12 does not recite any judicial exceptions to patentability as identified in the Revised Guidance.

Under the Revised Guidance, judicial exceptions include certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human interactions such as a fundamental economic practice, or mental processes). We find the Examiner has not shown the claimed invention is directed to any of the certain groupings of abstract ideas as described in the Revised Guidance. Moreover, we find the Examiner's analysis based on the Examiner's statement of the abstract idea does not support the Examiner's conclusion of a lack of patent-eligible subject matter.

As a result, we cannot sustain the Examiner's conclusion of a lack of patent eligible subject matter of illustrative independent claim 12, independent claims 22 and 32 containing similar limitations, and their dependent claims based upon the Examiner's same deficient factual findings in the Final Action and the Examiner's Answer.

STEP 2A, Prong 2 of the Revised Guidance

If a claim recites a judicial exception, in Prong Two we determine whether the recited judicial exception is integrated into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application. If the recited judicial exception is integrated into a practical application, the claim is not *directed to* the judicial exception.

For completeness, we also consider whether claim 12 integrates the alleged judicial exception (here, the Examiner identifies the claim limitations correspond to concepts identified as abstract ideas by the courts, such as "an idea of itself" in *Alice* and "the claims define using patient ID, association data, contextualized medical data, etc. as categories to organize, store and transmit information; and comparing point of care device range and time information to pre-set delay information to identify options of contextualizing medical data" (Final Act. 3)) into a practical application.[2] *See* Ans. 3.

[2] *See, e.g.*, *Alice*, 573 U.S. at 223, discussing *Diamond v. Diehr*, 450 U.S. 175 (1981).

> At the same time, we tread carefully in construing this exclusionary principle lest it swallow all of patent law. At some level, "all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept. "[A]pplication[s]" of such concepts "'to a new and useful end,'" we have said, remain eligible for patent protection. Accordingly, in applying the § 101 exception, we must distinguish between patents that claim the "'buildin[g] block[s]'" of human ingenuity and those that integrate the building blocks into something more, thereby "transform[ing]" them into a patent-eligible invention.

Alice, 573 U.S. at 217 (citations omitted).

The introduction of a computer into the claims does not alter the analysis at *Alice* step two (implemented in part as Step 2A, Prong 2 in the Revised Guidance).

> [T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea "while adding the words 'apply it'" is not enough for patent eligibility. Nor is limiting the use of an abstract idea "'to a particular technological environment.'" Stating an abstract idea while adding the words "apply it with a computer" simply combines those two steps, with the same deficient result. Thus, if a patent's recitation of a computer amounts to a mere instruction to "implement[t]" an abstract idea "on . . . a computer," that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of "additional featur[e]" that provides any "practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself."

Alice, 573 U.S. at 223–224 (citations omitted). "[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer." *Alice*, 573 U.S. at

225. To answer this question, we ask whether claim 12 as a whole integrates the alleged judicial exception into a practical application. Ans. 3–4; *see* Revised Guidance at 54.

Appellants contend claim 12 "taken as a whole amount to more than the mere recitation of methods of organizing human activity or organizing information into categories and provide specifically claimed elements for a technical improvement to any preexisting manual techniques." *See* App. Br. 11.

We are persuaded by Appellants' arguments that claim 12, as a whole, reflects a technological improvement. *See Enfish*, 822 F.3d at 1336–37 (court concluded claims to a self-referential database were not directed to an abstract idea, but rather an improvement to computer functionality; it was the specification's discussion of the prior art and how the invention improves the way the computer stores and retrieves data in memory in combination with the specific data structure recited in the claims that provided eligibility); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (incorporation of particular claimed rules in computer animation "improved [the] existing technological process", rather than merely used the computer as a "tool to automate conventional activity"); *see also* Revised Guidance at 55.

If the claimed sequence of steps were to be deemed certain methods of organizing human activity, we determine that the abstract idea is applied in a meaningful way so as "to cause the at least one medical device to adjust one or more settings based on the received contextualized medical data."

Under the Revised Guidance, we find the Examiner's analysis based on the Examiner's statement of the abstract idea does not support the Examiner's conclusion of a lack of patent-eligible subject matter.

As a result, we cannot sustain the Examiner's conclusion of a lack of patent-eligible subject matter of independent claims 12, 22, and 32 and their dependent claims based upon the Examiner's same deficient factual findings in the Final Action and the Examiner's Answer.

STEP 2B of the Revised Guidance

As we hold claim 12 is not directed to a judicial exception, and in any event, integrates the alleged judicial exception into a practical application, we need not consider whether there is an inventive concept under Step 2B.

For the reasons discussed *supra*, we are persuaded of Examiner error. Accordingly, we do not sustain the Examiner's rejection of independent claim 12 under 35 U.S.C. § 101. For similar reasons, we do not sustain the Examiner's rejection of independent claims 22 and 32, which recite similar limitations. Further, we do not sustain the Examiner's rejection under 35 U.S.C. § 101 of claims 13–21, 23–31, and 33–35, which depend directly or indirectly therefrom.

CONCLUSION

The Examiner erred in rejecting claims 12–35 based on a lack of patent-eligible subject matter under 35 U.S.C. § 101.

DECISION

For the above reasons, we reverse the Examiner's subject matter eligibility rejection of claims 12–35 under 35 U.S.C. § 101.

REVERSED

UNITED STATES PATENT AND TRADEMARK OFFICE

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Before JOSEPH L. DIXON, JAMES W. DEJMEK, and STEPHEN E. BELISLE, *Administrative Patent Judges*.

DEJMEK, *Administrative Patent Judge*.

DISSENTING OPINION

I respectfully dissent from the Majority's decision reversing the Examiner's decision rejecting claims 12–35 under 35 U.S.C. § 101.

In the Background Art section of the Specification, Appellants assert there is "an increase[d] demand for improvements in patient point of care so as to avoid errors such as patient misidentification, wrong medication and false medication administration recording." Spec. 2:28–30. Appellants acknowledge the use of a handheld device comprising an RFID reader to identify (and verify) a patient by reading a RFID wristband worn by a patient was known. Spec. 3:1–9. Additionally, Appellants acknowledge it was known to use a per-patient device "that automatically detects and logs

patient encounters with items (such as medical devices, drug containers, clinicians) . . . ." Spec. 3:10–13. Further, it was known that such a device may communicate with the Clinical Information Systems (CIS) "to ascertain if a detected medical device, drug or the like has been approved or ordered for the patient." Spec. 3:14–17.

Appellants describe an object of the disclosed and claimed invention is to "provide an improved device of this general type" and improve safety "by offering quality reports derived from both medical data originating from the medical devices . . . and data relating to patient encounters with items." Spec. 3:19–25. More particularly, Appellants' disclosed and claimed invention generally relates to point of care devices "that automatically detect and associate device encounters with items in a healthcare environment and that merge data resulting from this association with medical data originating from medical devices so as to provide contextuali[z]ed medical data from which improved quality reports can be completed." Spec. 1:7–12; *see also* Spec., Abstract.

Appellants collectively argue the patent eligibility of independent claims 12, 22, and 32. *See, e.g.*, App. Br. 6–14. Accordingly, I select independent claim 22 as representative of the claims on appeal. *See* 37 C.F.R. § 41.37 (c)(iv) (2016). Claim 22 is reproduced below:

> 22. A method of providing patient care, comprising
>
> receiving a patient ID from a patient transmitter;
>
> receiving, by a medical device communication port of a point of care device, medical data originating from at least one medical device including at least one of an infusion pump, a respirator, a vital sign monitor, or an EEG;
>
> receiving, by a reader of the point of care device, item identification information originating from at least one item;

> associating, by a processor of the point of care device, the point of care device with the patient ID when it is determined that the point of care device is within range of the patient transmitter for a period of time longer than a first pre-set delay;
>
> determining, by the processor, whether the at least one item is within range of the reader for a period of time longer than the first pre-set delay;
>
> associating, by the processor, the at least one item with the point of care device that is associated with the patient in response to determining that the at least one item is within the range of the reader for the period of time longer than the first pre-set delay;
>
> generating, by the processor, association data in response to associating the at least one item with the point of care device that is associated with the patient;
>
> generating contextualized medical data based on the medical data and the association data, wherein the contextualized medical data provides information regarding context of the medical data with respect to the patient ID;
>
> transmitting, via a communication network, the contextualized medical data to a server having a database storing item information; and
>
> transmitting, via the medical device communication port, the contextualized medical data to the at least one medical device to cause the at least one medical device to adjust one or more settings based on the received contextualized medical data.

Appellants dispute the Examiner's conclusion that the claims are directed to an abstract idea. App. Br. 10–15. In particular, Appellants assert the Examiner overgeneralizes the claims in reaching the conclusion that the claims are directed to using categories to organize, store, and transmit information and comparing new and stored information. App. Br. 10. Rather, Appellants argue "the claims taken as a whole amount to more than the mere recitation of methods of organizing human activity or organizing information into categories and provide specifically claimed elements for a

technical improvement to any preexisting manual techniques." App. Br. 11. More specifically, Appellants assert the claims do not recite any human activity—much less a method of organizing human activity. Further, Appellants argue the claims recite steps such as transmitting contextualized medical data to a medical device to cause the medical device to adjust one or more settings—which is "impossible for a human caregiver to carry out." App. Br. 12. Additionally, Appellants assert the claims recite more than merely organizing data, but also include translating the data into a common format. App. Br. 12. Moreover, Appellants assert the claims recite significantly more than the alleged abstract idea. App. Br. 13–15.

Similar to the Majority, the Supreme Court's two-step framework guides my analysis of patent eligibility under 35 U.S.C. § 101. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217 (2014). As set forth by the Majority, the Office recently published revised guidance for evaluating subject matter eligibility under 35 U.S.C. § 101, specifically with respect to applying the *Alice* framework. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Office Guidance"). If a claim falls within one of the statutory categories of patent eligibility (i.e., a process, machine, manufacture, or composition of matter) then the first inquiry is whether the claim is directed to one of the judicially recognized exceptions (i.e., a law of nature, a natural phenomenon, or an abstract idea). *Alice*, 573 U.S. at 217. As part of this inquiry, we must "look at the 'focus of the claimed advance over the prior art' to determine if the claim's 'character as a whole' is directed to excluded subject matter." *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257–58 (Fed. Cir. 2016) (internal citations omitted). Per Office Guidance, this first inquiry has two

prongs of analysis: (i) does the claim recite a judicial exception (e.g., an abstract idea), and (ii) if so, is the judicial exception integrated into a practical application. 84 Fed. Reg. at 54. Under the Office Guidance, if the judicial exception is integrated into a practical application, *see infra*, the claim is patent eligible under § 101. 84 Fed. Reg. at 54–55. If the claim is directed to a judicial exception (i.e., recites a judicial exception and does not integrate the exception into a practical application), the next step is to determine whether any element, or combination of elements, amounts to significantly more than the judicial exception. *Alice*, 573 U.S. at 217; 84 Fed. Reg. at 56.

Here, I would conclude that the claims (i.e., claim 22) recite an abstract idea of a mental process. More specifically, Appellants' claims are generally directed to generating contextualized medical and patient information for patient care. This is consistent with how Appellants describe the claimed invention. *See* Spec. 3:21–25 ("offering quality reports derived from both medical data originating from the medical devices . . . and data relating to patient encounters with items"). Appellants describe contextualizing medical data "by merging [the medical data] with the association data derived from proximity detection of for instance the patient . . . ." Spec. 13:14–17. Further, the Specification describes translating data received from medical devices into a common format and contextualizing the translated data with the patient identification information. Spec. 13:18–21. Consistent with our Office Guidance and caselaw, we conclude that generating contextualized medical and patient information for patient care is a mental process (i.e., a concept performed in the human mind, such as, an observation, evaluation, judgment, and opinion)—i.e., an abstract idea. *See*

84 Fed. Reg. at 52; *see also Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (concluding that "analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category"); *Content Extraction & Transmission v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (concluding the pending claims were directed to "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory," which the court concluded to be an abstract idea); *Voter Verified, Inc. v. Election Sys. & Software LLC*, 887 F.3d 1376, 1385–86 (explaining the concepts of voting, verifying the vote, and submitting the vote for tabulation to be abstract); *see also Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017) ("customizing information and presenting it to users based on particular characteristics" (citing *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015)).

Also, although not binding on us, we note that other courts have also concluded that translating data into a new form is an abstract idea. *See Novo Transforma Techs. LLC v. Sprint Spectrum, L.P.*, 669 F. App'x 555 (Fed. Cir. 2016) (unpublished per curiam mem.) (affirming district court's grant of summary judgment of invalidity of patent as being directed to patent-ineligible subject matter that was directed to nothing more than the abstract idea of translation of a data from one format to another); *Broadband iTV, Inc. v. Hawaiian Telcom, Inc.*, 669 F. App'x 555 (Fed. Cir. 2016) (unpublished per curiam mem.) (affirming district court's grant of summary judgment of invalidity of patent as being directed to patent-ineligible subject

matter that was directed to nothing more than the abstract idea of translation of a data from one format to another); *see also Yodlee, Inc. v. Plaid Techs. Inc.*, Civil Action No. 14-1445-LPS, 2016 WL 2982503, at *25 (D. Del. May 23, 2016) (finding claims directed to an abstract idea because they are "focused on the idea of translating data into a new form, but they say almost nothing about how that translation must occur" (emphasis omitted)).

Claim 22 is reproduced below and includes the following claim limitations that recite generating contextualized medical and patient information for patient care, emphasized in *italics*.

22. A method of providing patient care, comprising

receiving a patient ID from a patient transmitter;

receiving, by a medical device communication port of a point of care device, *medical data originating from at least one medical device* including at least one of an infusion pump, a respirator, a vital sign monitor, or an EEG;

receiving, by a reader of the point of care device, *item identification information originating from at least one item*;

associating, by a processor of the point of care device, *the point of care device with the patient ID when it is determined that the point of care device is within range of the patient transmitter for a period of time longer than a first pre-set delay*;

determining, by the processor, whether *the at least one item is within range of the reader for a period of time longer than the first pre-set delay*;

associating, by the processor, *the at least one item with the point of care device that is associated with the patient* in response to determining that the at least one item is within the range of the reader for the period of time longer than the first pre-set delay;

generating, by the processor, *association data* in response to associating the at least one item with the point of care device that is associated with the patient;

> *generating contextualized medical data* based on the medical data and the association data, wherein the contextualized medical data provides information regarding context of the medical data with respect to the patient ID;
>
> transmitting, via a communication network, the contextualized medical data to a server having a database storing item information; and
>
> transmitting, via the medical device communication port, the contextualized medical data to the at least one medical device to cause the at least one medical device to adjust one or more settings based on the received contextualized medical data.

More particularly, generating contextualized medical and patient information for patient care comprises (i) receiving the data (e.g., patient ID, medical data, and item information) to be contextualized (i.e., the claimed receiving steps); (ii) validating and associating the received data (i.e., the claimed steps of determining that the point of care device collecting the data is within range for a predetermined period of time of the items transmitting the data to be received and associating / generating the association of the received data); and (iii) contextualizing the received data (i.e., the claimed step of generating contextualized medical data).

Because the claim recites a judicial exception, we next determine whether the claim integrates the judicial exception into a practical application. 84 Fed. Reg. at 54. To determine whether the judicial exception is integrated into a practical application, we identify whether there are "*any additional elements recited in the claim beyond the judicial exception(s)*" and evaluate those elements to determine whether they integrate the judicial exception into a recognized practical application. 84 Fed. Reg. at 54–55 (emphasis added); *see also* Manual of Patent Examining

Procedure ("MPEP") § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018).

Here, I would find the additional limitations do not integrate the judicial exception into a practical application. Similarly, the additional limitations recited in the dependent claims fail to integrate the judicial exception into a practical application. More particularly, the claims do not recite: (i) an improvement to the functionality of a computer or other technology or technical field (*see* MPEP § 2106.05(a)); (ii) use a "particular machine" to apply or use the judicial exception (*see* MPEP § 2106.05(b)); (iii) a particular transformation of an article to a different thing or state (*see* MPEP § 2106.05(c)); or (iv) any other meaningful limitation (*see* MPEP § 2106.05(e)). *See also* 84 Fed. Reg. at 55. Rather, I find the additional limitations of transmitting the contextualized medical data to a server or to "at least one medical device to cause the at least one medical device to adjust one or more settings based on the received contextualized medical data" to be the type of extra-solution activities (i.e., in addition to the judicial exception) the courts have determined insufficient to transform judicially excepted subject matter into a patent-eligible application. *See* MPEP § 2106.05(g); *see also Parker v. Flook*, 437 U.S. 584, 590 (1978) (explaining "[t]he notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance"); *Elec. Power*, 830 F.3d at 1354 (recognizing "that merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis"); *Bancorp Servs., L.L.C. v. Sun Life Assur.*

Co. of Can., 771 F.Supp.2d 1054, 1065 (E.D. Mo. 2011) *aff'd*, 687 F.3d 1266 (Fed. Cir. 2012) (explaining that "storing, retrieving, and providing data . . . are inconsequential data gathering and insignificant post solution activity").

More specifically, in *Flook* the Supreme Court decided that adjusting an alarm limit according to a mathematical formula was "post-solution activity" and insufficient to satisfy § 101. *Flook*, 437 U.S. at 590, 596–98. Similar to adjusting an alarm limit in accordance with a determined (updated) alarm limit, I find causing a medical device to adjust an output in accordance with determined contextualized medical data to be post-solution activity that does not confer patent eligibility to the recited claim.

"[T]he fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter." *Bancorp*, 687 F.3d at 1278; *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F. 3d 1359, 1363 (Fed. Cir. 2015) (explaining that "relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible" (citing *Alice*, 573 U.S. at 224 ("use of a computer to create electronic records, track multiple transactions, and issue simultaneous instructions" is not an inventive concept)). Moreover, Appellants' asserted benefit (*see* App. Br. 14) of avoiding "[s]erious bodily harm to patients . . . from inaccurate pairing of devices to a patient; devices which may then provide erroneous medical data impacting subsequent patient care" is commendable, but does not confer patent eligibility. *See Univ. of Fla. Research Found., Inc. v. General Elec. Co.*, No. 2018-1284, 2019 WL 921859, at *4 (Fed. Cir. Feb. 26, 2019) (noting that although the claimed invention may "result in

life altering consequences . . . is laudable, [] it does not render [the claims] any less abstract").

For at least the foregoing reasons, the claims do not integrate the judicial exception into a practical application.

Because I determine the claims are directed to an abstract idea or combination of abstract ideas, I analyze the claims under step two of Alice to determine if there are additional limitations that individually, or as an ordered combination, ensure the claims amount to "significantly more" than the abstract idea. *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73, 77–79 (2012)). As stated in the Office Guidance, many of the considerations to determine whether the claims amount to "significantly more" under step two of the Alice framework are already considered as part of determining whether the judicial exception has been integrated into a practical application. 84 Fed. Reg. at 56. Thus, at this point of the analysis, I determine if the claims add a specific limitation, or combination of limitations, that is not well-understood, routine, conventional activity in the field, or simply appends well-understood, routine, conventional activities at a high level of generality. 84 Fed. Reg. at 56.

Here, Appellants' claims do not recite specific limitations (or a combination of limitations) that are not well-understood, routine, and conventional. As Appellants acknowledge in the Specification, it was well-known in the relevant field to use, to use a point of care device to identify (i.e., verify) a patient by using, for example, an RFID reader in the point of care device to read an RFID wristband being worn by a patient. *See* Spec. 3:1–9. Additionally, Appellants acknowledge it was well-known to

use such RFID technology to read other items (e.g., medical devices, drug containers, and clinicians) and to communicate the readings to a database (e.g., Clinical Information System). *See* Spec. 3:10–17. Further, the claimed point of care device is described as comprising generic components (e.g., a processor, a reader, a communications port) that are used to perform generic computer functions. *See Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (generic computer components such as an "interface," "network," and "database," fail to satisfy the inventive concept requirement); *see also 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.").

For the reasons discussed *supra*, I am not persuaded of Examiner error and would sustain the Examiner's rejection of claims 12–35 under 35 U.S.C. § 101.

Accordingly, I respectfully dissent.