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Leason Ellis LLP
One Barker Avenue
Fifth Floor
White Plains, NY 10601-1526

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PETER OHNEMUS, ANDRE NAEF,
LAURENCE JACOBS, and DAVID LEASON

Appeal 2019-001267
Application 14/257,855
Technology Center 3600

Before ERIC B. GRIMES, RICHARD M. LEBOVITZ, and FRANCISCO C. PRATS, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

The Examiner rejected the claims under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject the claims. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as DACADOO AG. Appeal Br. 2.

STATEMENT OF THE CASE

Claims 1–5, 7, 10–16, and 18–28 stand rejected by the Examiner under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception to patent eligibility. Final Act. 8; Ans. 8–9.

Independent claim 1 is representative and reads as follows (bracketed numbering has been added for reference to the claim limitations):

> 1. A computer implemented method for processing private health related data into a masked numerical score and restricting access to the masked numerical score to specific users, comprising the steps of:
>
> [1] connecting, by a processor executing code and via a communication subsystem, to each of a plurality of electronic devices, wherein each of the electronic devices is configured with a respective module for communication with the communication subsystem via a respective communication session;
>
> [2] validating, by the processor executing code, data representing at least one intrinsic medical parameter and at least one extrinsic physical activity parameter of a user, wherein the data are received from each of the plurality of electronic devices via the communication subsystem;
>
> [3] determining, by the processor executing code, that at least one parameter used to calculate a masked composite numerical value is missing from the received data;
>
> [4] imputing, by the processor executing code, at least one value in place of the at least one missing parameter;
>
> [5] applying respective ones of weighting factors to the received at least one intrinsic medical parameter and the received at least one extrinsic physical activity parameter,
>
> [6] applying a decay component to the processed at least one extrinsic physical activity parameter to reduce the relative weight of the processed at least one extrinsic physical activity parameter for a physical activity in dependence on at least one factor associated with the user;
>
> [7] transforming the processed received data by executing additional code in the processor, wherein the

processed received data are transformed into the masked composite numerical value by combining the weighted parameters and the at least one imputed value in accordance with an algorithm, while maintaining the received data representing the at least one intrinsic medical parameter and the at least one extrinsic physical activity parameter private;

[8] automatically publishing the masked composite numerical value via a portal;

[9] restricting access to the masked composite numerical value via the portal to a designated group of the plurality of users represented by received designated users information while preventing access to the masked composite numerical value via the portal for any user who is not among the designated group of the plurality of users, using code executing in the processor and free of human intervention;

[10] receiving, by the processor executing code, data representing at least one intrinsic medical parameter or at least one extrinsic physical activity parameter of the user, wherein the data are received substantially in real-time from each of at least one of the plurality of electronic devices via the communication subsystem in response to a change in the respective parameter;

[11] modifying, by the processor executing code in accordance with the algorithm, the masked composite numerical value using the received data in response to the changed parameter;

[12] automatically publishing, by the processor executing code, the modified masked composite numerical value via a portal;

[13] generating, by the processor executing code in response to the modified masked composite numerical value, an alert; and

[14] sending, by the processor executing code and free of human intervention, the alert to the user via at least one user interface.

Principles of Law

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

However, not every discovery is eligible for patent protection. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). "Excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas." *Id.* The Supreme Court articulated a two-step analysis to determine whether a claim falls within an excluded category of invention. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014); *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66, 75–77 (2012).

In the first step, it is determined "whether the claims at issue are directed to one of those patent-ineligible concepts." *Alice*, 573 U.S. at 217. If it is determined that the claims are directed to an ineligible concept, then the second step of the two-part analysis is applied in which it is asked "[w]hat else is there in the claims before us?" *Id.* The Court explained that this step involves

> a search for 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."

Id. at 217–18 (citing from *Mayo*, 566 U.S. at 75–77).

Alice, relying on the analysis in *Mayo* of a claim directed to a law of nature, stated that in the second part of the analysis, "the elements of each claim both individually and 'as an ordered combination'" must be considered "to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Alice*, 573 U.S. at 217.

The PTO has published revised guidance on the application of 35 U.S.C. § 101. USPTO's January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 51–57 (2019)

("2019 Eligibility Guidance"). This guidance provides additional direction on how to implement the two-part analysis of *Mayo* and *Alice*.

Step 2A, Prong One, of the 2019 Eligibility Guidance, looks at the specific limitations in the claim to determine whether the claim recites a judicial exception to patent eligibility. In Step 2A, Prong Two, the claims are examined to identify whether there are additional elements in the claims that integrate the exception in a practical application, namely, is there a "meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception." 2019 Eligibility Guidance, 84 Fed. Reg. 54 (2. Prong Two).

If the claim recites a judicial exception that is not integrated into a practical application, then as in the *Mayo/Alice* framework, Step 2B of the 2019 Eligibility Guidance instructs us to determine whether there is a claimed inventive concept to ensure that the claims define an invention that is significantly more than the ineligible concept, itself. 2019 Eligibility Guidance, 84 Fed. Reg. 56. In making this determination, we must consider whether there are specific limitations or elements recited in the claim "that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present" or whether the claim "simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present." *Id.* (footnote omitted).

With these guiding principles in mind, we proceed to determine whether the claimed subject matter in this appeal is eligible for patent protection under 35 U.S.C. § 101.

Step 2A, Prong One

In Step 2A, Prong One, of the 2019 Guidance, the specific limitations in the claim are examined to determine whether the claim recites a judicial exception to patent eligibility, namely whether the claim recites an abstract idea, law of nature, or natural phenomenon.

The Examiner found that the claims are directed to an abstract idea. Final Act. 9–10, 16. The 2019 Eligibility Guidance lists three groupings of abstract ideas. 2019 Eligibility Guidance, 84 Fed. Reg. at 52. We therefore will examine the steps in the claimed method to determine whether the claim recites subject matter that falls within the groupings of abstract ideas listed in the 2019 Eligibility Guidance.

Step [1] of claim 1 is directed to connecting a plurality of electronic devices to a communication subsystem. The Specification discloses that the "electronic device" can be "smart phone or cellular telephone, a personal digital assistant (PDA), netbook, laptop computer, and so on" or "a device such as a heart rate or blood pressure monitor." Spec. 9: 14–21.

In step [2], the data of "at least one intrinsic medical parameter and at least one extrinsic physical activity parameter of a user" is validated. The Specification explains that this is done to avoid false scores. Spec. 38: 21–22. As an example, a medical parameter can be glucose levels or body weight. Spec. 11: 14–15. "Other parameters . . . include blood pressure measurements, height, body mass index, fat mass, medical conditions such as diabetes, ventricular hypertrophy, hypertension, irregular heartbeat and fasting glucose values." Spec. 12: 2–4. A physical activity parameter can be exercise, e.g., using "an exercise machine such as a treadmill, elliptical, stationary bike or weight lifting machine with a rack of weights or bands"

and fitness activity at a gym. Spec. 12: 15–16; 15: 11–16. The data is received from the electronic device "via the communication subsystem."

The claim does not specify how the validation in step [2] is accomplished, but the Specification states that "validation methods can range from ones based on outlier detection to ones based on multidimensional likelihood estimators." Spec. 38: 21–39: 1. However, the claim is not limited to any one of these methods. We find that the data validation could be accomplished in the human mind by evaluating the data and determining which values are outliers, e.g., a body weight value that is significantly different from the weight the previous day, or a blood pressure value significantly different than values the previous day and week. Thus, step [2] is a mental process, one of the three groups of abstract ideas listed in the 2019 Eligibility Guidance ("(c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion")). 2019 Eligibility Guidance, 84 Fed. Reg. at 52.

Step [3] comprises determining "that at least one parameter used to calculate a masked composite numerical value is missing from the received data." The parameters comprise the medical and physical activity parameters. This step can be performed in the human mind because it is an observation that a parameter is missing, for example, body weight or exercise performed a particular day. Thus, step [3] is also a mental process, one of the three groups of abstract ideas listed in the 2019 Eligibility Guidance.

In step [4] of the claim, the missing value is imputed by the processor executing code. The claim does not recite how the "imputing" is accomplished. The Specification discloses that the missing value can be

imputed "using a variety of statistical methods that range from ones based on global population statistics, to methods based on the use of more complicated statistical models that are built into the platform." Spec. 39: 4–6. However, the claim is not limited to statistical models, and the imputing can be as simple as substituting the body weight (medical parameter) or exercise (physical parameter) from the previous day. Therefore, step [4] is broad enough to include "imputing" by a mental process.

Weighting factors are applied to the medical and physical parameters in step [5]. The Specification explains this is done to "control the relative affect [sic] each parameter has on the user's calculated health score." Spec. 44: 15–16. The Specification explains:

> Some health parameters are more important than others in the calculation of the user[']s health score. Accordingly, weighting factors are applied to the health parameters [to] increase or decrease the relative affect [sic] each factor has in the calculation of the user's health score. For example, a user's current body weight can be more important than the amount of fitness activity the user engages in. In this example, the body weight parameter would be weighted more heavily by assigning a larger weighting factor to this parameter.

Spec. 16: 8–13. *See also* Spec. 11: 15–19 ("If the blood glucose data is a more important factor in determining a person's health than body weight, then the weighting factor 'a' will be larger than weighting factor 'b' so that the blood glucose data has a larger impact on the calculated health score (e.g., Healthscore = Glucose*a + (Weight/100)*b).")

The determination of what weighting factors to apply in step [5] can be a mental evaluation or judgment (84 Fed. Reg. at 52) because a human can decide to weigh one factor over another, e.g., based on the determination that a normal blood glucose level is more important to health than exercise.

The step is therefore broad enough to encompass a mental process, which is an abstract idea.

A "decay component" is applied in step [6] to the weighted physical activity parameter in step [5] to "reduce" its "relative weight" depending "on at least one factor associated with the user." The Specification discloses that the "factor" can be "the user's weight or weight range, age or age range, any medical conditions known to the system." Spec. 13: 10–13. The Specification states that the "decay component can itself comprise a weighting value, but can also comprise an equation." Spec. 13: 10–11. In other words, an evaluation or judgement can be made to reduce the weight given to physical activity (the "decay" of the parameter value) based on the age or weight of the user. Such determination could be performed in the mind and is therefore a mental process and an abstract idea.

In step [7], the processed data of step [6] is "transformed into the masked composite numerical value by combining the weighted parameters and the at least one imputed value in accordance with an algorithm." The claim does not recite the "algorithm." Appellant did not direct us to a description in the Specification where a specific algorithm for determining the composite score is described. Therefore, the claimed transformation can be accomplished by any type of calculation, including one where the processed parameters of steps [5] (medical) and [6] (physical activity) are added together in the human mind. Step [7] is thus broad enough to include transforming the data by a mental process.

Step [7] further requires that "the received data representing the at least one intrinsic medical parameter and the at least one extrinsic physical activity parameter" is kept "private." The Specification explains "since the

health score is derived from several factors, the underlying data used to calculate the score is kept private." Spec. 24: 2–4. Thus, the health information privacy is a result of transforming the data into the masked composite value.

The "masked composite numerical value" is published via a portal in step [8] and access is restricted to designated users in step [9]. The latter step is an abstract idea because it can be determined mentally which users can access the value and which cannot.

The data is received in real-time from the electronic devices in step [10] in response to a changed medical or physical parameter.

The "masked composite numerical value" in step [11] is modified in accordance with the algorithm of step [7] using the received data in response to the changed parameter. Thus, like step [7], step [11] is a mental process and an abstract idea.

The modified masked composite numerical value is automatically published (step [12]), an alert generated in response to the modified masked composite numerical value (step [13]), and the alert sent to the user (step [14]). The user is therefore informed by an alert that the masked composite numerical value has been modified in response to a changed parameter (steps [10], [11]). Appellant identifies support for the limitations (Appeal Br. 6–7), but the cited disclosure provides no guidance on the software or computer implementation used to generate and send alerts. The Specification teaches that the alerts can be sent by email and SMS (Spec. 6: 10–11), which we take note of are conventional computer-based communication methods.

Appellant did not provide arguments as to why any the limitations in the claim are not abstract. Rather, Appellant contends that "the Examiner fails to identify with sufficient or virtually any specificity as to what the so-called recited abstract idea is and how it is similar to 'abstract ideas found by the courts to be abstract.'" Appeal Br. 13. Appellant contends that the Examiner "has not carried his burden" to identify the abstract idea in the claim. *Id.* at 14.

We do not agree. The Examiner stated that "present invention generically applies computer technology to perform a problem that has been performed as long as providers have been taking care of patients, e.g., presenting needed personal information while keeping personal information private." Final Act. 13. The latter would be understood to be applicable to step [7], which keeps the medical and physical activity parameters private by masking them. Thus, the Examiner considered this step to be abstract because it was performed "generically," namely not restricted to a particular way in which the information is masked. The Examiner also listed the various steps in the claim and found they were directed to collecting and analyzing information, and then displaying it, which the Examiner concluded were the same steps found to be abstract in *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016). Final Act. 15–16. The Examiner also specifically found that "[]imputing data [(step [4])], transforming data [(steps [7] and [11])] and generating data[] is merely analyzing data, which is encompassed in *Electric Power Group*." *Id.* at 16. In other words, the Examiner found that these steps are abstract ideas for the same reason the court found so in *Electric Power Group*. Appellant did not provide an explanation as to why they are not.

In sum, steps [2]–[7], [9], and [11] recite abstract ideas.

Step 2A, Prong Two

Prong Two of Step 2A under the 2019 Eligibility Guidance asks whether there are additional elements that integrate the exception into a practical application. As set out in the *Mayo*/*Alice* framework, we must look at the claim elements individually and "as an ordered combination" to determine whether the additional elements integrate the recited abstract idea into a practical application. As discussed in the 2019 Eligibility Guidance, "[a] claim that integrates a judicial exception into a practical application will apply, rely on, or use the judicial exception in a manner" that places a "meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception." 2019 Eligibility Guidance, 84 Fed. Reg. at 54.

Integration into a practical application is evaluated by identifying whether there are additional elements individually, and in combination, which go beyond the judicial exception. 2019 Eligibility Guidance, 84 Fed. Reg. at 54–55. One consideration indicating that an exception is integrated into a practical application is an additional element that improves the functioning of a computer or other technology. *Id*. at 55. As explained in the October 2019 Update to Subject Matter Eligibility[2] "first the 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." PEG Update at 12.

[2] Available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf (last accessed Nov. 15, 2019) ("PEG Update.")

According to the PEG Update, the "specification need not explicitly set forth the improvement, but it must describe the invention such that the improvement would be apparent to one of ordinary skill in the art." *Id.*

The Specification discloses that privacy laws restrict the type of health information that can be shared, making it difficult to share with family and friends. Spec. 2: 8–20. The Specification also discloses that prior art systems for numerical scores related to person's health have been described, but these do not take into account actual physical activity. Spec. 2: 8–3: 6.

The Specification discloses in the "Summary of the Invention" that "an aspect of the present invention" is "a computer implemented method for processing private health related data into a masked numerical score suitable for publishing." Spec. 3: 16–18 (boldface omitted). The Specification describes the steps for doing so, which correspond to steps [2]–[8] of claim 1. Spec. 3: 18–4: 9; 44: 5–19. The Specification also discloses that in an embodiment of the invention medical and physical parameters can be "updated in substantially real-time" without access to a medical practitioner and that alerts can be sent out based on changes in the health score. Spec. 6: 1–13. This description corresponds to steps [10]–[14] of claim 1.

Appellant contends that the claims "recite a technical solution to a problem arising specifically because of technical limitations inherent to that field (*i.e.*, health-related data reception, processing, management, access, alert generation and distribution)." Appeal Br. 14. Appellant also asserts the claims are directed to an improvement in computing devices. *Id.* The "specific implementation of hardware and software elements that improve technical aspects relating to receiving, processing, managing, and providing information" (*id.* at 16) is described by Appellant as follows:

> suitably configured hardware (*e.g.*, a computer having a processor, a memory, a communication unit), and software elements (*e.g.*, "code" executed by the processor) that "[step [2]] validate data representing at least one intrinsic medical parameter and at least one extrinsic physical activity parameter of a user," as well as to "[step [3]] determine that at least one parameter used to calculate a masked composite numerical value is missing from the received data." Furthermore, and notably, the claims on appeal "[step [4]]impute at least one value in place of the at least one missing parameter."

Appeal Br. 16.

Appellant also identifies the detecting of changes in the parameters in steps [10]–[12] and resulting "alerts" in step [14] as overcoming technical problems. Appeal Br. 17, 19, 21.

Steps [2]–[4] are asserted by Appellant to be the improvement to the technological field of health-related data collection, processing, and management. Step [2] is validating the data. Step [3] is determining that a value for a parameter is missing. Step [4] is "imputing" the missing value. As discussed under Step 2A, Prong One, each of these steps are broad enough to include their execution in the human mind, and therefore represent abstract ideas. The improvement asserted by Appellant is therefore to the abstract idea, itself. As explained in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016), we must "look to whether the claims . . . focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." In this case, the recited steps asserted by Appellant to be an improvement to the technology are not limited to a specific algorithm, software, or set of specific rules by which the validating and imputing steps

are accomplished. Rather, they are so broadly recited that they encompass the abstract idea, itself.

The recited steps in claim 1 are distinguishable from the steps in *McRO* found to make the claim patent eligible. In *McRO*, the court found that, while the *McRO* claims involved the manipulation of data, e.g., generating morph weight sets to animate lip and facial expressions of three-dimensional characters, the claimed "automation goes beyond merely 'organizing [existing] information into a new form' or carrying out a fundamental economic practice." *McRO*, 837 F.3d at 1315 (citation omitted). Instead, the court found that the "claimed process uses a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results: a sequence of synchronized, animated characters." *Id.* *McRO* found that the recited rules "are limiting in that they define morph weight sets as a function of the timing of phoneme sub-sequences." *Id.* at 1313. The claims were found to be directed to a "technological improvement over the existing, manual 3-D animation techniques." *Id.* at 1316.

In finding the claim patent-eligible, *McRO* noted that the "abstract idea exception has been applied to prevent patenting of claims that abstractly cover results where 'it matters not by what process or machinery the result is accomplished.' [*O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 113 (1853)]; *see also Mayo*, 132 S.Ct. at 1301." *McRO*, 837 F.3d at 1314. Here, the steps [2]–[4] are not limited to how they are accomplished, but rather recite the result of whatever process is used to validate the data, identify missing data, and impute a value for the missing data.

Preemption is another issue that must be considered. In *McRO*, the court held that the "limitations in claim 1 prevent preemption of all processes for achieving automated lip-synchronization of 3–D characters." *McRO*, 837 F.3d at 1315. Furthermore, the court found that "[t]he specific structure of the claimed rules would prevent broad preemption of all rules-based means of automating lip synchronization." *Id.* Steps [2]–[4] are recited in such general terms – [2] validating data, [3] identifying missing data, and [4] imputing a value for the missing data – that there is a risk that the abstract idea embodied in these steps and other steps in the claim reciting abstract ideas would preempt the abstract idea. Thus, the technological improvement asserted by Appellant is recited in such broad terms that it "itself is the abstract idea," differing only in being accomplished on a computer. "Steps that do nothing more than spell out what it means to 'apply it on a computer' cannot confer patent-eligibility. *Alice*, 134 S.Ct. at 2359." *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370–71 (Fed. Cir. 2015).

As indicated above, Appellant also asserts that the technological improvement is detecting the change in parameters received in real-time and sending alerts based on the changes. Appeal Br. 17, 19, 21. This asserted improvement is embodied in steps [10]–[14] of claim 1.

Step [11] is the abstract idea, itself, and therefore cannot serve as the basis for integrating the abstract idea into a practical application. Step [10] is receiving the data and steps [12]–[14] are accomplished for the purpose of sending an alert to the user of the changed masked composite numerical value determined in step [11]. Appellant asserts that alerts are sent in a "non-generic" way, but the claim does not recite specific rules that limit how

the alerts are sent or a specific method by which they are sent. Rather, steps [13] and [14] only recite that the alert is generated and then sent via a user interface without reciting how the alert is sent. The claim does not recite the specific means to accomplish these steps, such as the specific rules recited in *McRO* which made the claims eligible for a patent under § 101. The alert, itself, as explained in Step 2A, Prong One, can be an email or SMS message, which were conventional communication tools at the time of the invention.

We recognize that the idea of updating in real-time a health score ("masked composite numerical value") and sending an alert to the user may be a new improvement, but an improvement in an abstract idea is not a technological improvement unless the abstract idea is integrated into a practical application (is there a "meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception."). 2019 Eligibility Guidance, 84 Fed. Reg. at 54 (2. Prong Two).

The receipt of the data in step [10] and the alert in steps [13] and [14] are "insignificant extra-solution solution activity" to the judicial exception of step [11] in which the masked composite numerical value is modified. Appellant has not explained how the alert, itself, is a technological improvement.

The claims are distinguishable from *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018), cited by Appellant. Appeal Br. 14. In *Core Wireless*, 880 F.3d at 1362–63, the court found that the claims were "directed to a particular manner of summarizing and presenting information in electronic devices" that specified "a particular manner by which the summary window must be accessed" and disclosed "a

specific manner of displaying a limited set of information to the user, rather than using conventional user interface methods to display a generic index on a computer." *Id.* The court found that "these claims recite a specific improvement over prior systems, resulting in an improved user interface for electronic devices." *Id.* at 1363. Claim 1 does not recite a "particular manner" of sending user alerts as in *Core Wireless*. And unlike in *McRO* where a specific "technical effect" was achieved by carrying out the specific rules (*Solutran, Inc. v. Elavon, Inc.*, 931 F.3d 1161, 1167 (Fed. Cir. 2019) (discussing *McRO*)), the claim does not limit how the alert is sent.

The rejected claims in this appeal have the same deficiency identified in *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016), which were held to be ineligible for a patent under 35 U.S.C. § 101 because they did "not claim a particular way of programming or designing the software to create menus that have [certain] features, but instead merely claim the resulting systems." Likewise, the claims recite certain functions in steps [2]–[4] and [10]–[14], but not how the functions are accomplished. A judicial exception is not integrated into a practical application when the additional element "merely uses a computer as a tool to perform an abstract idea." 2019 Eligibility Guidance, 84 Fed. Reg. at 55.

For the foregoing reasons, we conclude that the abstract ideas recited in claim 1 are not integrated into a practical application. Thus, claim 1 is directed to an abstract idea.

Step 2B

Because we determined that the judicial exception is not integrated into a practical application, we proceed to Step 2B of the 2019 Guidelines,

which asks whether there is an inventive concept. In making this Step 2B determination, we must consider whether there are specific limitations or elements recited in the claim "that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present" or whether the claim "simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present." 2019 Eligibility Guidance, 84 Fed. Reg. at 56 (footnote omitted). We must also consider whether the combination of steps is performed "in an unconventional way and therefore include an 'inventive step,' rendering the claim eligible at Step 2B." *Id.*

Appellant contends that the claims provide an "inventive solution" which is "rooted in computer technology." Appeal Br. 18. Appellant identifies the steps discussed above of [4] imputing missing values and [10]–[14], detecting changes in health and automatically sending alerts. *Id.* at 19.

"It has been clear since *Alice* that a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention 'significantly more' than that ineligible concept." *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). As explained in *SAP Am., Inc. v. Investpic, LLC,* 898 F.3d 1161, 1168 (Fed. Cir. 2018), "[w]hat is needed is an inventive concept in the non-abstract application realm."

The claimed method first determines an initial masked composite numerical value in steps [1]–[7]. The masked composite numerical value is modified by new data in steps [10]–[11]. An alert is then generated and sent

(steps [13], [14]). The determination of the initial composite value and the modified value are abstract ideas, and therefore cannot be the "additional element" that serve as the inventive concept. 2019 Eligibility Guidance, 84 Fed. Reg. at 56; *BSG Tech*, 899 F.3d at 1290. The issue is whether the non-abstract elements in the claim add "significantly more" to the claim than the exception, itself.

As explained above, neither the Specification nor the claims recite specifically how the claimed processes are implemented. The alert can be sent by conventional email and SMS, and therefore, alone, cannot be inventive. Spec. 6: 10–11. The claim does not require that anything be done with the alert other than to inform the user of a change in the health score as embodied in the masked composite numerical value. We find that the inventive concept and improvement asserted by Appellant boils down to the display of the result of the process of step [11] in the form of a message, such as a SMS text or email. Therefore, while the generation and sending of the alert is an additional element in the claim, in reading the Specification and the claim, itself, we can discern nothing inventive in those processes that would confer eligibility on the claim. Unlike in *Diehr*, where the abstract idea was used to control a physical process by determining when a compound was cured in order to automatically open the mold, the abstract ideas in claim 1 are not applied in a practical or inventive way, but rather to send an alert in a conventional manner.

Appellant has not identified how the claimed steps in combination, or as an "ordered combination" (*Mayo*, 566 U.S. at 79), perform unconventionally to send the health alert to the user. Consequently, under Step 2B, we are not persuaded that the Examiner erred in determining that

the additional limitations of claim 1 do not transform the claim into significantly more than the abstract idea.

Summary

For the foregoing reasons, the rejection under 35 U.S.C. § 101 of claim 1, and claims 2–5, 7, 10–16, and 18–28 which were not separately argued, is affirmed. 37 C.F.R. § 41.37(c)(1)(iv).

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–5, 7, 10–16, 18–28	101	Eligibility	1–5, 7, 10–16, 18–28	

TIME PERIOD

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

AFFIRMED