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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* STEVEN L. KAGEN

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Appeal 2022-000345  
Application 16/527,120  
Technology Center 3600

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Before BIBHU R. MOHANTY, JAMES P. CALVE, and  
BRADLEY B. BAYAT, *Administrative Patent Judges*.

BAYAT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1, 3–12, 14, and 16–22. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as STEVEN L. KAGEN. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claims are directed to real-time symptom analysis system and method. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method of presenting real-time health information, the method comprising steps of:
  - (a) administering *by a user interface associated with a mobile device*, a virtual questionnaire to obtain information regarding the user's health status;
  - (b) determining the location of the user *using a location determination circuit associated with the mobile device*;
  - (c) obtaining environmental data *from an internet-accessible database* corresponding with the user's local environmental conditions at the time the questionnaire is administered;
  - (d) storing the information regarding the user's health status and corresponding environmental data *in a data store associated with the mobile device*;
  - (e) developing a data structure from which the health status of the user is correlated with the user's local environmental conditions to identify causes of symptoms for the user;
  - (f) repeating steps (a) through (e) a plurality of different times in accordance with a predetermined update schedule and upon demand by the user, and re-correlating health status with the user's local environmental conditions to refine and enhance the data structure;
  - (g) determining the current location of the user *using the location determination circuit of the mobile device*;
  - (h) obtaining current or predicted environmental data *from the internet accessible database* at the current location of the user determined in step (g);
  - (i) predicting future symptoms based upon the data structure and current or

predicted local environmental conditions determined in step (h);  
(j) determining whether to deliver a warning of environmental risks that are predicted to induce symptoms in the user; and

(k) presenting *by a display associated with the mobile device* a visualization indicative of the future symptoms if it is determined that a warning is to be delivered.

### REJECTION

Claims 1, 3–12, 14, and 16–22 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

### BACKGROUND

Appellant’s “disclosure relates to a system and method for providing health analysis.” Spec. ¶ 2.

Specifically, [Appellant’s] disclosure relates to a symptom analysis application and method for creating, analyzing, individualizing, geo-locating, and displaying information regarding symptoms of allergy, asthma, sinus headaches, migraine, arthritis, and other medical conditions induced by a person’s unique responses to environmental exposures to allergens, air pollutants, and weather elements instantaneously in real time.

*Id.* The Abstract section of Appellant’s Specification describes the invention as a

system and method for presenting real-time health information[,] administers virtual questionnaires, automatically determines a user health status, and presents a visualization to a user indicating a likelihood of a symptom occurrence. The system and method presents [sic] results of the analysis to a user to predict health risks, analyze user symptoms, connect users with medical professionals, and provide marketing offers. The results may be presented as text, graphs, stationary maps, and/or animated maps.

OPINION

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.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories*, 566 U.S. 66 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp.*, 573 U.S. at 217. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether the additional elements “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 78, 79). This is “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 (alteration in original) (citation omitted).

The first step in the *Alice* framework is to determine whether the claims at issue are “directed to” a patent-ineligible concept, e.g., an abstract idea. *Alice Corp.*, 573 U.S. at 217. With regard to this first step, the

Examiner applies a “directed to” two-prong test to: 1) evaluate whether the claim recites a judicial exception, and 2) if the claim recites a judicial exception, evaluate whether the judicial exception is integrated into a practical application.<sup>2,3</sup> Only if a claim: (1) recites a judicial exception, and (2) does not integrate that exception into a practical application, the Examiner then evaluates whether the claim provides an “inventive concept” under *Alice* step 2 or “Step 2B.” See *Alice Corp.*, 573 U.S. at 217–18; MPEP § 2106.05.

Appellant argues all claims as a group. Appeal Br. 7–10. We select independent claim 1 as representative of the group, with the remaining claims standing or falling therewith. See 37 C.F.R. § 41.37(c)(1)(iv) (2020).

Under Prong One of Step 2A, the Examiner determines that claim 1 recites

determining the health status of the user based on user’s response to the virtual questionnaire, developing a data structure .... , repeating steps of different times in accordance with a predetermined update schedule and upon demand by the user; recorrelating health status, determining at predetermined times the location of user, obtaining current location or predicted environmental data, predicting future symptoms .... , determining whether to deliver a warning of environmental risks ... , and presenting a visualization. If a claim limitation, under its broadest reasonable interpretation, then it falls within the

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<sup>2</sup> The Office’s current eligibility guidance is found in the Ninth Edition, Revision 10.2019 (revised June 2020) of the Manual of Patent Examination Procedure (MPEP).

<sup>3</sup> “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.” 84 Fed. Reg. 50, 54; MPEP § 2106.04(d).

“certain methods of organizing human activity” grouping of abstract ideas.

Final Act. 4. Under Prong Two, the Examiner determines that the additional elements do not integrate the abstract idea into a practical application. *Id.* at 5.

Appellant does not allege error under Prong One of Step 2A<sup>4</sup> and, instead, argues that claim 1 is integrated into a practical application because it is “directed to a process that improves the capabilities and functionality of a mobile computing device so that it can accurately predict when a user of the device is likely to experience annoying, uncomfortable, or life-threatening symptoms based on forecasted or existing environmental conditions at the user’s location.” Appeal Br. 7. According to Appellant “the specification indicates a technical improvement over the prior art that is achieved by obtaining subjective information in real-time regarding a person’s health, and providing a system and method to correlate this information with real-time environmental data for the person’s particular location.” *Id.* (citing Spec. ¶¶ 9–11); *see also* Reply Br. 3–4.

The Examiner disagrees and responds: “The determination of possible symptoms depending on when and where the health status is obtained is part of the abstract idea of collecting data. The steps of obtaining environmental data [also] is part of the abstract idea.” Ans. 3. According to the Examiner, “determining whether a warning should be presented to the user is part of the abstract idea (certain methods of organizing human activity) since this falls

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<sup>4</sup> *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential) (“If an appellant fails to present arguments on a particular issue — or, more broadly, on a particular rejection — the Board will not, as a general matter, unilaterally review those uncontested aspects of the rejection.”).

in the sub category of managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions).” *Id.* at 3–4. The Examiner states that “[t]he step of presenting to a user the data derived with the use of generic computer components does not improve on the computer itself or its functionality.” *Id.* at 4. We agree with the Examiner.

Appellant’s arguments are unpersuasive at least because many of the argued features are part of the abstract idea, which cannot integrate itself into a practical application. The alleged improvement may reflect an improvement to the abstract idea for which generic computer components are used as tools in their ordinary capacity, but it does not reflect an improvement in computer capabilities or functionality.

The additional elements recited in claim 1 are a generic “user interface,” “location determination circuit,” “data store,” and “display” associated with the mobile device, and “an internet-accessible database.” Appeal Br. 12. The Specification discloses that “[e]xamples of [such] computing devices include, without limitation, a computer workstation, a server, a desktop, notebook, laptop, or handheld computer, a cellular phone, a smartphone, a personal digital assistant (PDA), a tablet computer, a remote sensor network, a weather radar device, or any other computing system and/or device.” Spec. ¶ 29. Further, the Specification indicates that

the exemplary user device 120 includes a location determination circuit such as a satellite-based location circuit (e.g. GPS) or a cellular-based location circuit (e.g. via triangulation); a clock; a display; a user input device such as a touchscreen or a keyboard; and a data store such as a memory chip or memory card.

*Id.*



Appellant acknowledges that “the claimed technological advance or focus of the invention is the *use* of a mobile computing device, its GPS circuit, and its internet access functionalities to warn a user of impending health threats in real-time based on real-time or predicted conditions at the user’s current location (as determined using GPS)” (Appeal Br. 8 (emphasis added)), yet, Appellant asserts that

the claimed processes and systems employ an array of mobile computing device features and functionalities, including automatically determining the prevailing environmental conditions (via the internet) at the user’s location (using GPS function of the device) at the time the user is providing health information, and integrating this data with similar historical data to provide an enhanced data structure that facilitates more accurate predictions. This improvement allows the user to take actions to avoid or reduce the risk of adverse reactions, while reducing or eliminating false warnings.

*Id.* at 8–9; *see also* Reply Br. 2. We are unpersuaded because Appellant’s description of the advance and improvement makes it clear that generic computer components are *utilized* as tools to implement the abstract idea in a real-time online environment to effectuate an abstract improvement that “allows the user to take actions to avoid or reduce the risk of adverse reactions, while reducing or eliminating false warnings” (*see supra*), rather than improving the functioning or capabilities of the computer or device.

We recognize that “[s]oftware can make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route.” *Enfish*, 822 F.3d at 1335. However, “to be directed to a patent-eligible improvement to computer functionality, the claims must be directed to an improvement to the functionality of the computer or network platform itself.” *Customedia*

*Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1364 (Fed. Cir. 2020) (citing *Enfish*, 822 F.3d at 1336–39). Claim 1 recites generic components arranged in no particular way to perform generic operations of administering, determining, obtaining, storing, developing, predicting, and presenting information without improving computers or networks.

Contrary to Appellant’s argument that “[t]he claims recite specific means for achieving a desired result, and do not claim the result” (Appeal Br. 9), we find that the operations in claim 1 are recited in purely functional form devoid of any implementation details. Claims that recite abstract ideas in purely functional form similar to claim 1 have regularly been held ineligible for patenting. For example, in *Affinity Laboratories*, the claim was directed to a software application that would enable a wireless cellular telephone device outside the range of a regional broadcaster to receive content from the broadcaster by way of a streaming signal. 838 F.3d at 1258. Because nothing in that claim described *how* to perform the claimed function, the court held the claim patent ineligible. *Id.* at 1260–61. Likewise, in *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335 (Fed. Cir. 2018), the claim was directed to an “attention manager” in a computer readable medium, and the court held that claim to be patent ineligible because the claim recited a “broad, result-oriented” structure. *Id.* at 1344–45. *See also Two-Way Media Ltd. v. Comcast Cable Commc’n, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) (functional results of converting, routing, controlling, monitoring, and accumulating records does not recite how to achieve these results in a non-abstract way, similar to other claims (*EPG*); monitoring the delivery of real-time information to users is an abstract idea of measuring the delivery of real-time information for commercial purposes of processing

data streams). Similarly, claim 1 does no more than use instructions to implement the abstract idea using generic computer components wherein the focus of the claim as a whole is directed to a result or effect that itself is the abstract idea.

We next consider whether claim 1 recites additional elements, individually, or as an ordered combination, that provide an inventive concept. *Alice*, 573 U.S. at 217–18. The second step of the *Alice* test is satisfied when the claim limitations involve more than the performance of well-understood, routine, and conventional activities previously known to the industry. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1367 (Fed. Cir. 2018).

The Examiner finds that claim 1 does not include “additional elements that are sufficient to amount to significantly more than the judicial exception.” Final Act. 5.

Appellant argues that

the steps of concurrently using historical data correlating the specific user’s reactions to actual environmental conditions existing at the user’s location at the time the user experiences reactions to the environmental conditions in combination with the real-time location of the user and real-time or predicted conditions at the user’s location are not well-understood, routine or conventional. Rather, the specific means recited in the claims directly address a problem in the prior art, namely eliminating or significantly reducing hindsight bias and memory errors introduced by the user.

Appeal Br. 9–10.

We are not persuaded by Appellant’s argument at least because “the relevant inquiry is not whether the claimed invention as a whole is unconventional or non-routine.” *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). Rather, in the second step of the *Alice*

framework, we consider if a claim adds a limitation beyond the judicial exception that is not “well-understood, routine, conventional” activity. *See Berkheimer*, 881 F.3d at 1368. And, a claim does not gain subject matter eligibility solely because it is narrowed or limited to Appellant’s alleged improvement over existing processes. *See, e.g., Intellectual Ventures I LLC*, 838 F.3d at 1321 (“A narrow claim directed to an abstract idea, however, is not necessarily patent-eligible.”). The question is whether the claim includes additional elements, i.e., elements other than the abstract idea itself, that “transform the nature of the claim’ into a patent-eligible application.” *Alice Corp.*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79, 78). It does not here.

Accordingly, we are not persuaded the Examiner erred in rejecting claim 1 under 35 U.S.C. § 101. Therefore, we sustain the rejection of independent claim 1 and the remaining claim, which fall therewith.

### CONCLUSION

The rejection under 35 U.S.C. § 101 is AFFIRMED.

### DECISION SUMMARY

<b>Claim(s) Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/ Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 3–12, 14, 16–22	101	Eligibility	1, 3–12, 14, 16–22	

### TIME PERIOD FOR RESPONSE

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

AFFIRMED