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GRANT, MICHAEL CHRISTOPHER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte YEQING CHENG, YASAMAN BAIANI,
JACOB ANTONY ARNOLD, ALLISON MAYA RUSSELL, and
ALAN MCLEAN

Appeal 2018-004701
Application 15/048,972
Technology Center 3700

Before STEFAN STAICOVICI, MICHAEL L. HOELTER, and
WILLIAM A. CAPP, *Administrative Patent Judges*.

CAPP, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants¹ seek our review under 35 U.S.C. § 134(a) of the final rejection of claims 1–23 under 35 U.S.C. § 101 as directed to a judicial exception to patent eligible subject matter. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Fitbit, Inc. is the Applicant and the real party in interest. Appeal Br. 3.

THE INVENTION

Appellants' invention relates to tracking user motion activity. Spec.

¶ 2. Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A method, comprising:

capturing motion data using one or more sensors of an activity tracking device, the activity tracking device having a memory for storing computer instructions and a processor for executing the computer instructions, the processor configured for capturing the motion data;

identifying using the processor one or more intervals of time during a day, each interval including a start time and an end time, a near-end time being defined between the start time and the end time;

determining using the processor, based on the output of the one or more sensors, that the user is wearing the activity tracking device; and

in response to determining that the user is wearing the activity tracking device:

generating using the processor a first notification for display on the activity tracking device when the near-end time of a current interval is reached and a number of steps taken by the user during the current interval is less than a goal defined by a predetermined number of steps;

receiving, by the processor of the activity tracking device, a hold command from a computing device, the hold command including a hold period selected from among a plurality of predefined hold periods;

suspending using the processor, in response to the hold command, the generating of the first notification during the hold period; and

resuming using the processor the generation of the first notification after the hold period expires without requiring user input.

OPINION

Appellants argue claim 1, repeat and incorporate their claim 1 arguments for independent claims 11 and 18, and then do not argue for the separate patentability of any dependent claims. Appeal Br. 7–22. We select claim 1 as representative and claims 2–23 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The controlling statute provides that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. The Courts recognize certain judicial exceptions to Section 101, namely: (1) laws of nature, (2) natural phenomena, and (3) abstract ideas. *See Mayo Collaborative Svc. v. Prometheus Labs, Inc.*, 566 U.S. 66, 70–71 (2012).

The Supreme Court has set forth “a framework 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. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014) (citing *Mayo*, 566 U.S. at 72–73). According to the Supreme Court’s framework, we must first determine whether the claims at issue are directed to one of those concepts. *Id.* If so, we must secondly “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.*

Courts treat collecting information as well as analyzing information by steps people go through in their minds as essentially mental processes

within the abstract-idea category. *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). In situations where an abstract idea is implemented on a computer, the first step in the *Alice/Mayo* analysis asks whether the focus of the claims is on a specific improvement in computer capabilities or, instead, on a process that qualifies as an “abstract idea” for which computers are invoked merely as a tool. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016).

The Supreme Court characterizes the second step of the analysis as “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.’” *Alice*, 573 U.S. at 217–18 (brackets in original) (quoting *Mayo*, 566 U.S. at 72–73). Where the claim is directed to an abstract idea that is implemented on a computer, merely stating the abstract idea while adding the words “apply it,” is not enough to establish such an inventive concept. *See Alice*, 573 U.S. at 223.

[I]f that were the end of the § 101 inquiry, an applicant could claim any principle of the physical or social sciences by reciting a computer system configured to implement the relevant concept.

Id. at 224.

The PTO recently published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“2019 Guidelines”). Under such guidelines, in conducting step one of the *Alice* framework, 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 interactions 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)).

In other words, under prong 1 of an abstract idea analysis, we look to whether the claim recites an abstract idea. Then, if it does, under prong 2, we look at the claim, as a whole, and determine whether the claim is “directed to” the abstract idea or, instead, is “directed to” a “practical application” of the abstract idea.

Step 1, Prong 1

The *2019 Guidelines* identifies three key concepts identified as abstract ideas: (a) mathematical concepts including “mathematical relationships, mathematical formulas or equations, mathematical calculations”; (b) certain methods of organizing human activity, such as “fundamental economic principles or practices,” “commercial or legal interactions,” and “managing personal behavior or relationships or interactions between”; and (c) mental processes including “observation, evaluation, judgment, [and] opinion.”

With respect to the first step, the Examiner determines that the claims are directed to an abstract idea. Final Action 3. According to the Examiner, the steps are directed to an abstract idea in the form of an idea itself. *Id.* citing *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016).

There is little question here that claim 1 recites an abstract idea. Appellants’ Specification explains that the invention relates to methods, systems, and programs for tracking user motion activity to enable reduction of sedentary time by users. Spec. 2. This concept is captured in the

recitations of claim 1. Claims App. Although the Examiner characterized claim 1 as being directed to an abstract idea “of itself” (Final Action 3), the abstract idea can also be considered a method of “managing personal behavior” under the *2019 Guidelines*.

A method of organizing human activity is recognized by the courts as an abstract idea. *See In re TLI Communications LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016) (classifying and storing digital images is an abstract idea as a method of organizing human activity); *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015) (tracking financial transactions to determine whether they exceed a pre-set spending limit is an abstract idea as a method of organizing human activity); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (screening messages is an abstract idea as a method of organizing human activity); *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016) (filtering internet content is an abstract idea as a method of organizing human behavior).

“Information as such is an intangible,” hence abstract. *Electric Power Group.*, 830 F.3d at 1353. Consequently, claims focused on “collecting information, analyzing it, and displaying certain results of the collection and analysis” are directed to an abstract idea. *Id.* The claims here relate to monitoring and managing user behavior by collecting data, processing the data, and notifying the user. Claims App. As such, the method recites an abstract idea under the principles espoused in *Electric Power Group*.

Step 1, Prong 2

Under Prong 2 of Step 1 of the *2019 Guidelines*, we do not assume that such claims are directed to patent ineligible subject matter because “all

inventions [at some level] embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) quoting *Alice*. Instead, “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016). If the claims are not directed to an abstract idea, the inquiry ends. *2019 Guidelines*. If the claims are “directed to” an abstract idea, then the inquiry proceeds to the second step of the *Alice* framework. *Id.*

Consequently, we consider whether the claimed user activity monitoring method includes additional elements that integrate the judicial exception into a practical application. 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. *2019 Guidelines*.

Here, Appellants argue that claim 1 is not directed to an abstract idea, analogizing their invention to those of *McRO* and *Enfish*. Appeal Br. 9. Appellants, furthermore, attempt to distinguish their invention from those of *Alice, supra*; *Parker v. Flook*, 437 U.S. 584 (1978); and *Bilski v. Kappos*, 561 U.S. 593 (2010). *Id.* Appellants argue that claim 1 is directed to an improvement in sensor-based activity tracking device technology. *Id.* Appellants, furthermore, argue that an improvement in computer-related technology is not limited to improvements in the operation of a computer per se, but may also be claimed as a set of rules not previously performable by a computer. *Id.* at 11 (*citing* *McRO*, 837 F.3d at 1315).

In response, the Examiner states that, unlike *McRO* and *Enfish*, Appellants' invention is not a technological improvement. Ans. 2. According to the Examiner, Appellants claim computing elements only to embody their abstract idea. *Id.* at 3.

Appellant's claimed improvement is, instead, that the human user of the activity tracking device will not be bothered by notifications for some period of time. An improvement of that nature, however, is not a technological improvement because it does not necessarily require any technology to perform. Appellant's claimed abstract idea could be performed, e.g., by a human coach instead of by the claimed computing elements. For example, a coach could observe the user and count his/her steps in order to see if the step count met some predetermined goal over a time interval. The coach would then provide verbal notifications to the user that he/she did or did not meet that goal. However, if the user asked the coach not to provide those notifications for some specific period of time (e.g., on a lunch break) the coach would then wait until that period was over before then beginning to provide the notifications again. Appellant claims computer elements to perform the functions here that could otherwise be performed by a human coach but any improvement is not to those computing elements *qua* computing elements but instead is to the user experience in terms of not being bothered with notifications when he/she does not want to be. Improving a person's user experience is not, however, a technological improvement.

Id. at 3–4.

In reply, Appellants repeat their analogy to *McRO* and reiterate that a set of rules implemented on a computer can result in patent eligible subject matter. Reply Br. 4. Appellants characterize their method as “improving the functionality” of sensor-based activity tracking device. *Id.*

Although automating tasks that humans are capable of performing may be patent eligible if properly claimed (*See McRO*, 837 F.3d at 1313),

we are not persuaded by Appellants' effort to characterize "improving the functionality" as a technological improvement analogous to that of *McRO* and *Enfish*. Here, the method of claim 1 generally comprises five functional method steps, namely: (1) identifying, (2) generating, (3) receiving, (4) suspending, and (5) resuming. Claims App. The method collects, processes, and presents information to induce users to change their behavior. Such is properly characterized as managing personal behavior.

The prospect that Appellants' method uses a computerized "tool" does not render the claims less abstract. An abstract idea does not become nonabstract by limiting the invention to a particular technological environment. *Intellectual Ventures I*, 792 F.3d at 1367; *see also Affinity Labs of Texas, LLC v. DirecTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016) (Merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claims any less abstract); *see also Alice*, 573 U.S. at 224 (the fact a computer exists in the physical realm is beside the point). Unlike *Enfish*, the focus of the instant claims is not on improving a computer, but rather on a process for which computers are invoked merely as a tool. *See Enfish*, 822 F.3d at 1335–36. The Examiner is correct that "[i]mproving a person's user experience," without more, is not a technological improvement. Ans. 4. The claims, thus, fail to integrate the judicial exception into a practical application and, therefore, is "directed to" an abstract idea.

Step 2

Turning to step 2 of the *Alice/Mayo* analysis, we look more precisely at what the claim elements add in terms of whether they identify an "inventive concept" in the application of the ineligible matter to which the

claim is directed to. *See SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Alice*, 573 U.S. at 221 (quoting *Mayo*, 566 U.S. at 77–78). Those “additional features” must be more than well-understood, routine, conventional activity. *Mayo*, 566 U.S. at 79.

Under step two of the *Alice/Mayo* framework, the Examiner determines that Appellants’ activity tracking method, considered both individually and in combination, do not amount to significantly more than the abstract idea. Final Action 4. Specifically, the Examiner finds that:

[T]he claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because an activity tracking device that captures motion data and having a memory and a processor and determines whether or not the user is wearing the device; and a computing device are generic, well known and conventional computer components and are claimed to provide generic, well-known, and conventional functions such as capturing data, executing computer instructions, and displaying the outcome of those instructions.

Id. at 4.

Appellants argue that claim 1 defines a “non-conventional arrangement of components” that provide an inventive concept. Appeal Br. 14–15. In particular, Appellants argue the arrangement of sensors and the processor, configured to suspend and resume notifications, is a non-conventional arrangement of components. *Id.* at 15 (quoting *Amdocs (Israel) Ltd, v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300-01 (Fed. Cir. 2016).

However, what Appellants point to as “inventive” is just the abstract idea itself. Appeal Br. 14–15. We may assume that the techniques claimed are “[g]roundbreaking, innovative, or even brilliant,” but that is not enough for eligibility. *SAP Am.*, 898 F.3d at 1163 (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013)). Appellants’ steps of identifying, generating, receiving, suspending, and resuming merely tell a computer to “apply” the abstract idea of step 1. However, it does not matter how innovative Appellants’ abstract idea is. *Id.* A claim for a new abstract idea is still an abstract idea. *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016).

Appellants’ effort to analogize the instant case to *Amdocs* is unpersuasive. The claim at issue in *Amdocs* contained an “enhancing limitation” that necessarily required otherwise generic network devices and “gatherers” to operate in an unconventional manner to achieve an improvement in computer functionality. *Amdocs*, 841 F.3d at 1300-01. Appellants argue, in conclusory fashion, that the instant case is analogous to *Amdocs*, but they point to nothing in claim 1 that can be considered unconventional in a manner analogous to the “enhancing limitation” in *Amdocs*.

Appellants’ Specification reveals the well-understood, routine, and conventional nature of the computer technology used in the invention. For example:

Figure 1 is a block diagram of a system architecture according to one embodiment. Portable biometric devices, also referred to as activity tracking devices, will be referred to herein by way of example to illustrate aspects of the embodiments. Some activity tracking devices are portable and have shapes and sizes that are adapted to couple to the body of a user (e.g., activity

tracking devices 102, 106), while other devices are carried by the user (e.g., mobile phone 108, laptop 110, tablet), and other devices may be stationary (e.g., electronic scale 104, a digital thermometer, personal computer).

Spec. ¶ 35.

The devices collect one or more types of physiological or environmental data from embedded sensors or external devices. The devices can then communicate the data to other devices, to one or more servers 112, or to other internet viewable sources. As one example, while the user is wearing an activity tracking device 102, the device can calculate and store the number of steps taken by the user (the user's step count) from data collected by embedded sensors. Data representing the user's step count is then transmitted to an account on a web service (such as www.fitbit.com for example) where the data may be stored, processed, and viewed by the user. Indeed, the device may measure or calculate a plurality of other physiological metrics in addition to, or in place of, the user's step count.

Id. ¶ 36

The monitoring device 152 is an example of any of the monitoring devices described herein, and including a step tracker, a fitness tracker without buttons, or a fitness tracker defined to be clipped onto the belt of a user, etc. The monitoring device 152 includes processor 154, memory 156, one or more environmental sensors 158, one or more position and motion sensors 160, watch 162, vibrotactile feedback module 164, display driver 168, touchscreen 206, user interface/buttons 170, device locator 172, external event analyzer 174, motion/activity analyzer 176, power controller 178, battery 180, and heart rate monitor 182, all of which may be coupled to all or some of the other elements within monitoring device 152.

Id. ¶ 177. Thus, Appellants use one or more sensors to capture motion data. Claims App. claim 1. The sensors may be a biometric sensor or motion sensor or any other type of sensor configured to detect user activity. Spec.

¶ 157. There is no indication in the Specification that Appellants have achieved an advancement or improvement in sensor technology. *See generally* Spec. Appellants use a computer processor to identify time intervals, determine that a user is wearing the device, generate notifications for display, and suspend notifications. Claims App. claim 1. There is no indication in the Specification that Appellants have achieved an advancement or improvement in computer processing technology. *See generally* Spec. There is similarly no indication in the Specification that Appellants have achieved an advancement or improvement in display technology. *Id.*

A patent applicant is required to submit a specification that contains a written description of the invention in “full, clear, concise, and exact terms.” 35 U.S.C. § 112(a). For purposes of the *Alice/Mayo* analysis, a specification demonstrates the well-understood, routine, conventional nature of step 2 “*additional elements*” when it describes them in a manner that indicates they are sufficiently well-known that they need not be described with particularity to satisfy 35 U.S.C. § 112(a).² That is the case here.

Essentially, all Appellants have done here is use motion sensors to capture data, use computer processing technology to correlate the motion data to time intervals, and generate information displays to a user. This is quintessentially “collecting information, analyzing it, and displaying certain results of the collection and analysis.” *Electric Power Group.*, 830 F.3d at 1353. Appellants’ method recites an “abstract idea” for which computers

² Memorandum from the U.S. Patent & Trademark Office, *Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (Berkheimer v. HP, Inc.)* (Apr. 19, 2018).

are invoked merely as a tool. *Enfish*, 822 F.3d at 1335–36. In short, claim 1 is directed to an abstract idea that is implemented on a computer in a manner that merely states the abstract idea while adding the words “apply it.” *See Alice*, 573 U.S. at 223. This is not sufficient for patent eligibility. *Id.*

Appellants argue that claim 1 does not preempt or monopolize any abstract concept. Appeal Br. 12, This argument is not persuasive as it is well settled that “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

We have considered Appellants’ remaining arguments and find them to be without merit. The recited elements of claim 1, considered individually and as an ordered combination, do not constitute an “inventive concept” that transforms independent claim 1 into patent-eligible subject matter. On this record, we affirm the Examiner’s § 101 rejection of claim.

DECISION

The decision of the Examiner to reject claims 1–23 as being directed to unpatentable subject matter under 35 U.S.C. § 101 is affirmed.

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