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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ALAN CHMIEL, HEATHER GORNIK,
JOHN R. BARTHOLOMEW, CARLOS GRODSINSKY,
and JONATHAN SCHAFFER

Appeal 2018-003977
Application 12/857,118
Technology Center 3600

Before BIBHU R. MOHANTY, MEREDITH C. PETRAVICK, and BRADLEY B. BAYAT, *Administrative Patent Judges.*

PETRAVICK, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1–5, 7–16, 18–25, and 27–32. We have jurisdiction under 35 U.S.C. § 6(b).

This application was first before us in Appeal No. 2013-011068. Appeal Br. 3.

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[1] 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 ZIN Technologies, Inc. and The Cleveland Clinic Foundation. Appeal Br. 3.

We REVERSE.

CLAIMED SUBJECT MATTER

The claims are directed to a system for monitoring and managing patient care. Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A patient monitoring system comprising:
>
> a patient unit configured as a server in a network to read and write data in a remote database, the patient unit comprising:
>
> a device interface configured to provide for data communication with a measurement device, the patient unit being programmed to selectively retrieve results data indicative of at least one patient condition from the measurement device;
>
> a communication module configured to provide two-way communication via the network with the remote database, the server being configured to employ the communication module to retrieve encounter instruction data for the patient unit from the remote database for a given patient encounter, the encounter instruction data comprising a plurality of main sequence steps that include at least one set of predetermined queries, at least one of the plurality of main sequence steps being programmed to trigger a conditional branch of sequence steps in response to detecting an off-nominal condition at the at least one of the plurality of sequence steps, the conditional branch of sequence steps being programmed to obtain additional information about the off-nominal condition and to return to complete the plurality of main sequence steps, the patient unit disabling the measurement device via the device interface until the plurality of main sequence steps and the conditional branch of sequence steps, as provided by the encounter instruction data, are completed to prevent a premature measurement of the at least one patient condition and ensure compliance with a patient specific

protocol, the patient unit providing a command via the device interface to enable the measurement device to measure the at least one patient condition after the plurality of main sequence steps and the conditional branch of sequence steps are completed, the server being configured to employ the communication module to send response data to the remote database for the given patient encounter, the response data comprising stored user responses, including the additional information about the off-nominal condition, and the results data; and

a user interface programmed to present at least one of the predetermined queries to a user and to receive user responses to the each of the predetermined queries for the given patient encounter, the user responses for each of the predetermined queries being stored in memory of the patient unit as the response data for the given encounter; and

a back office system programmed to access the remote database and to retrieve the response data from the remote database for at least one patient unit, the back office system further being programmed to at least one of add or modify the encounter instruction data in response to retrieved response data for the given encounter, the encounter instruction data being stored in the remote database for a next patient encounter at the patient unit.

REJECTION

Claims 1–5, 7–16, 18–25, and 27–32 are rejected under 35 U.S.C. § 101 for being directed to patent-ineligible subject matter.

OPINION

Principles of Law

A. Section 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 U.S. 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. *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court's two-part framework, described in *Mayo* and *Alice*. *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("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, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 191 (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 (1853))); 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 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 187; *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 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 (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.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

B. USPTO Section 101 Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. 2019 Revised Patent

Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance").[2] "All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." *Id.* at 51; *see also* October 2019 Update at 1.

Under the 2019 Revised Guidance and the October 2019 Update, 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) ("Step 2A, Prong One"); and
>
> (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP §§ 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) ("Step 2A, Prong Two").[3]

2019 Revised Guidance, 84 Fed. Reg. at 52–55.

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

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[2] In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the "October 2019 Update") (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

[3] This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Revised Guidance - Section III(A)(2), 84 Fed. Reg. 54–55.

(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.

2019 Revised Guidance, 84 Fed. Reg. at 52–56.

Discussion

The Examiner rejected claims 1–5, 7–16, 18–25, and 27–32 under 35 U.S.C. § 101 for being directed to patent-ineligible subject matter. *See* Final Act. 2–13; Ans. 4–9. The Examiner determined that the claims recite the abstract idea of "updating (i.e.[,] adding to or modifying) patient instructions and/or dosage instructions for a next patient encounter based on patient responses to queries, results of patient measurements and optionally additional information collected as a result of an off-normal condition obtained during a current encounter." Final Act. 3–13 (emphasis omitted). According to the Examiner, this concept is a mental process that can be performed in the human mind or with pen and paper. *Id.* at 4.

Claims 1, 18, 23, and 29 are independent and, in addition the limitation reciting the alleged abstract idea, each recite limitations concerning the disabling and enabling of a measurement device. *See* Appeal Br. 17–19, 28–30, 36–37, 41–42; *see* Final Act. 9. For example, claim 1 recites:

> the patient unit disabling the measurement device via the device interface until the plurality of main sequence steps and the conditional branch of sequence steps, as provided by the encounter instruction data, are completed to prevent a premature

> measurement of the at least one patient condition and ensure compliance with a patient specific protocol, the patient unit providing a command via the device interface to enable the measurement device to measure the at least one patient condition after the plurality of main sequence steps and the conditional branch of sequence steps are completed.

Pointing to these limitations, Appellant argues that the independent claims as a whole do not recite an abstract idea because they

> provide[] a technical solution that ensures that a patient will not take a premature measurement of a patient condition until all conditions dictated by encounter instruction data are satisfied, which ensures compliance with a patient specific protocol. Specifically, the technical solution includes the controllability (disabling and enabling) of one device over another unit to ensure compliance with a protocol. This execution of encounter instruction data by the patient unit and its control of the measurement device via a device interface, in response to the execution of the instruction data and responses it receives, improves the operation of medical devices in a manner that ultimately advances health care for patients.

Appeal Br. 22; *see* Reply Br. 2–4. In other words, Appellant argues that these claim limitations reflect an improvement to technology that, with the claim as a whole, integrates the allegedly recited judicial exception (i.e., abstract idea) into a practical application of the exception.

Under the 2019 Revised Guidance, even if the claims recite any one of the groupings of abstract ideas, these claims are still not "directed to" a judicial exception (abstract idea), and thus are patent eligible, if "the claim as a whole integrates the recited judicial exception into a practical application of that exception." *See* 2019 Revised Guidance, 84 Fed. Reg. at 53. For example, limitations that are indicative of integration into a practical

application include improvements to the functioning of a computer, *or to any other technology or technical field* (*see* MPEP § 2106.05(a)). In contrast, limitations that are not indicative of integration into a practical application include:

> (1) Adding the words "apply it" (or an equivalent) with the judicial exception, or merely include instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea (*see* MPEP § 2106.05(f));
>
> (2) Adding insignificant extra-solution activity to the judicial exception (*see* MPEP § 2106.05(g)); and
>
> (3) Generally linking the use of the judicial exception to a particular technological environment or field of use (*see* MPEP § 2106.05(h)).

See 2019 Revised Guidance, 84 Fed. Reg. at 54–55.

We agree with Appellant that the claim limitations concerning the disabling and enabling of a measurement device, in combination with the other claim limitations, considered as a whole, recites an improvement to technology. As the Specification explains:

> In this way, the patient unit 12 can use the communication through the connection to selectively activate and deactivate the measurement device to help ensure the user's behavior complies with the protocol[,]

and

> [i]n this way, certain preliminary information can be collected before the patient can perform testing. For instance, by selectively disabling/enabling the patient device 14, there is a reduced likelihood that [the] patient's answer/response will be influenced by an otherwise premature measurement that may be acquired via the patient device.

Spec. ¶¶ 60–61; *see also* Spec. ¶ 18 ("Systems and methods can be programmed to help ensure and track patient compliance with a protocol that is defined by the provider."). The combination of the claim limitations concerning the disabling and enabling of a measurement device with the other claim limitations reflect an improvement to patient monitoring and care technology. The additional limitations, in combination with the claim as a whole, do more than merely recites the words "apply it" with the judicial exception; add insignificant extra-solution activity to the judicial exception; and generally link the use of the judicial exception to a particular technological environment or field of use.

In response to Appellant's argument, the Examiner argues, "[t]he claimed invention does not improve the operation of either the patient unit or the measurement device as Appellant contends" and that both the patient unit and measurement device operate in accordance with their standard functionality. Ans. 7. Under the 2019 Revised Guidance, limitations that are indicative of integration into a practical application include improvements to any other technology or technical field, not just improvements to the functioning of a computer. *See* 2019 Revised Guidance, 84 Fed. Reg. at 54–55; MPEP § 2106.05(a). The Examiner provides no sufficient explanation as to why the claim limitations concerning the disabling and enabling of a measurement device, in combination with the other claim limitations, do not recite an improvement to technology. Instead, the Examiner focuses on the conventionality and argues, "[d]isabling a device until a user performs certain tasks is well-established and conventional." Ans. 5–7. Consideration of whether a judicial exception has been integrated into a practical application

"specifically excludes consideration of whether the additional elements represent well-understood, routine conventional activity." 2019 Revised Guidance, 84 Fed. Reg. at 55.

On this record, we are persuaded that the Examiner erred in determining that the claims are directed to an abstract idea. We do not sustain the rejection of claims 1, 18, 23, and 29 and claims 2–5, 7–16, 19–22, 24, 25, 27, 28, and 30–32, dependent thereon, under 35 U.S.C. § 101 for being directed to patent-ineligible subject matter.

CONCLUSION

The Examiner's rejection of claims 1–5, 7–16, 18–25, and 27–32 is reversed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–5, 7–16, 18–25, 27–32	101	Eligibility		1–5, 7–16, 18–25, 27–32

REVERSED