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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte XERXES BATTIWALLA

Appeal 2018-009097[1]
Application 13/907,058[2]
Technology Center 3700

Before JOSEPH A. FISCHETTI, MICHAEL C. ASTORINO, and TARA L. HUTCHINGS, *Administrative Patent Judges*.

HUTCHINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–15 and 18–30. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] Our decision references Appellant's Appeal Brief ("App. Br.," filed June 12, 2018) and Reply Brief ("Reply Br.," filed Sept. 25, 2018), and the Examiner's Answer ("Ans.," mailed Aug. 30, 2018) and Final Office Action ("Final Act.," mailed Jan. 10, 2018).

[2] Appellant identifies Cochlear Limited as the real party in interest. App. Br. 3.

CLAIMED INVENTION

Claims 1, 11, and 24 are the independent claims on appeal. Claim 1, reproduced below with bracketed notations added, is illustrative of the claimed subject matter:

> 1. A computer-implemented method for assisting a clinician fitting a prosthesis to a recipient, the method comprising:
>
> [(a)] receiving, at a computing environment, input from at least one input device monitoring the physiological reactions of a recipient while a clinician fits a prosthesis to the recipient;
>
> [(b)] analyzing, using a processor of the computing environment, the input to identify at least one physiological trigger of the recipient;
>
> [(c)] determining, using the processor of the computing environment, a feedback event based on the at least one physiological trigger;
>
> [(d)] generating, using the processor of the computing environment, additional information about the feedback event, wherein the additional information comprises clinical instructions for how to adjust the prosthesis, wherein the clinical instructions are based on the feedback event;
>
> [(e)] determining, using the processor of the computing environment, whether to generate an alert; and
>
> [(f)] based upon the determination, displaying, using the computing environment, the feedback event and the additional information to the clinician for use in adjusting the prosthesis.

REJECTIONS

Claim 30 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claims 1–15 and 18–30 are rejected under 35 U.S.C. § 101, as directed to a judicial exception without significantly more.

ANALYSIS

Written Description

The written description requirement requires that the disclosure of the application relied upon reasonably convey that the inventor had possession of the claimed subject matter as of the filing date. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The disclosure, as originally filed, need not literally describe the claimed subject matter (i.e., using the same terms or *in haec verba*) in order to satisfy the written description requirement. *Purdue Pharma L.P. v. Faulding, Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000). The written description requirement is met when the disclosure "allow[s] one skilled in the art to visualize or recognize the identity of the subject matter purportedly described." *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 968 (Fed. Cir. 2002).

The Examiner maintains here that there is no written description support in the Specification for the "machine learning algorithm to update the method of providing fitting assistance," as recited in claim 30. Final Act. 2. In this regard, the Examiner ostensibly interprets claim 30 as requiring a machine learning algorithm that performs a new or modified step in the method of providing fitting assistance to "update the method."

Yet, claim 30 does not recite any steps performed by the machine learning algorithm. Instead, claim 30 recites providing the stored feedback event and the additional information to a machine learning algorithm to update the method of providing fitting assistance. Claim 30, under a broad, but reasonable, interpretation encompasses storing the claimed feedback event and additional information as the claimed "update [to] the method for providing fitting assistance." In this regard, using more feedback events and additional information could improve the quality of the fitting.

Appellant argues that various examples from the Specification demonstrate the inventors' possession of this limitation. App. Br. 22–26 (citing Spec. ¶¶ 18, 19, 32). We find that the portions of the Specification identified by Appellant provide sufficient written description support to show possession of the claimed invention. For example, Appellant's Specification describes that a machine learning algorithm updates the physiological analysis module by monitoring recipients and "build[ing] a more detailed database," the additional data increasing functionality and accuracy. Spec. ¶ 18.

Therefore, we do not sustain the Examiner's rejection of claim 30 under 35 U.S.C. § 112(a).

Patent-Ineligible Subject Matter

Appellant argues the pending claims as a group. App. Br. 26–40; *see also* Reply Br. 2–9. We select independent claim 1 as representative. The remaining claims stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

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 Servs. v. Prometheus Labs., Inc.*, 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.* (citation omitted). 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 there are additional elements that "'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo*, 566 U.S. at 79, 78). 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).

The USPTO recently published revised guidance on the application of § 101. *2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance").[3] That guidance revised the USPTO's examination procedure with respect to the first step of the *Mayo*/*Alice* framework such that a claim will generally be considered directed to an abstract idea if (1) the claim recites subject matter falling within one of the following groupings of abstract ideas: (a) mathematical concepts; (b) certain methods of organizing human activity, e.g., a fundamental economic principle or practice, a commercial or legal interaction; and (c) mental processes ("Step 2A, Prong One"), and (2) the claim does not integrate the abstract idea into a practical application, i.e., apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the clam is more than a drafting effort designed to monopolize the judicial exception ("Step 2A,

[3] The Revised Guidance is effective as of January 7, 2019, and applies to all applications, and to all patents resulting from applications, filed before, on, or after January 7, 2019.

Prong Two"). *See* Revised Guidance 54–55. The Revised Guidance references MANUAL OF PATENT EXAMINING PROCEDURE ("MPEP") §§ 2106.05(a)–(c) and (e)–(h) in describing the considerations that are indicative that an additional element or combination of elements integrates the judicial exception, e.g., the abstract idea, into a practical application. *Id.* at 55. If the recited judicial exception is integrated into a practical application, as determined under one or more of these MPEP sections, the claim is not "directed to" the judicial exception.

Only if the claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application do we then look to whether the claim "[a]dds a specific limitation or combination of limitations" that is not "well-understood, routine, conventional activity in the field" or simply "appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception" ("Step 2B"). *Id.* at 56.

Judicial Exception: Step One of the Mayo/Alice Framework; *Step 2A, Prong 1 of the 2019 Revised Guidance*

Appellant's Specification describes that medical prostheses are fitted for a particular recipient to match the recipient's needs and to ensure comfort. Spec. ¶¶ 1, 12. However, sometimes a clinician misses physiological cues due to inexperience or because of focusing on the prosthesis and/or fitting tools, instead of on the recipient. *Id.* ¶¶ 1, 12. Appellant's invention seeks to address this problem by identifying and alerting a clinician to physiological cues, thereby improving the fitting of a medical prosthesis. *Id.* ¶¶ 2, 13.

Appellant's claim 1 recites a method for assisting a clinician fitting a prosthesis to a recipient that includes: "receiving . . . input from . . .

monitoring the physiological reactions of a recipient while a clinician fits a prosthesis to the recipient . . . .” (step (a)); “analyzing . . . the input to identify at least one physiological trigger of the recipient” (step (b)); “determining . . . a feedback event based on the at least one physiological trigger” (step (c)); “generating . . . additional information about the feedback event, wherein the additional information comprises clinical instructions for how to adjust the prosthesis, wherein the clinical instructions are based on the feedback event” (step (d)); “determining . . . whether to generate an alert” (step (e)); and “based upon the determination . . . displaying . . . the feedback event and the additional information to the clinician for use in adjusting the prosthesis” (step (f)).

When given their broadest reasonable interpretation, limitations (a)–(f) recite steps that can be performed in the human mind (including observation, evaluation, and judgment), which are mental processes, and, therefore, an abstract idea. *See* 2019 Revised Guidance 52. As such, we are not persuaded that the Examiner failed to consider the claims as a whole in view of the Specification. *See* Reply Br. 2–4.

Practical Application: Step One of the Mayo/Alice Framework; *Step 2A, Prong 2 of the 2019 Revised Guidance*

Having concluded that claim 1 recites a judicial exception, i.e., an abstract idea, we next consider whether the claim recites additional elements, considered individually and in combination, that integrate the judicial exception into a practical application. *See* Revised Guidance 54–55. Here, the additional elements recited in claim 1, beyond the abstract idea, include a “computing environment,” “a processor,” and “at least one input device.” The Examiner interprets the claimed “input device” as a means-plus-function term and, thus, limits an input device to the corresponding

structures enumerated in the Specification (e.g., video camera, microphone, heartbeat monitor). Final Act. 3 (citing Spec. ¶ 19). However, we agree with Appellant that one of ordinary skill in the art would understand an "input device" in view of the Specification to refer to a structure that performs an input function, not means-plus-function terminology. *See* App. Br. 21–22 (citing Spec. ¶¶ 14, 15); *see also* Spec. ¶ 14 (describing exemplary input devices as video cameras, microphones, heartbeat monitors, devices to measure block pressure, and "any other type of devices capable of monitoring the physiological responses of recipient **102**"). As such, we interpret an input device to cover any device capable of monitoring a physiological response.

Nonetheless, the Specification describes each of the computing environment, processor, and input device broadly and at a high level of generality. *See, e.g.*, Spec. ¶¶ 14, 15, 34–38. We find no indication, nor do Appellant directs us to any indication, that the operations recited in claim 1 require specialized computer hardware or other inventive computer components. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) ("[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible."). At best, these elements link the abstract idea to a particular technological environment, i.e. a computer environment, and implement the abstract idea on a computer. *See Revised Guidance* at 55.

Claim 1 also additionally recites "based upon the determination, displaying, using the computing environment, the feedback event and the additional information to the clinician for use in adjusting the prosthesis," limitation (g). However, displaying the results of the collection and analysis adds no more than insignificant extra solution activities to the abstract idea.

See Revised Guidance at 55; *see also Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (instructing that limiting the abstract idea to a particular technological environment and adding insignificant post solution activity does not circumvent the prohibition against patenting abstract ideas).

Appellant argues that the Specification identifies a technical problem relating to fitting a prosthesis. App. Br. 28 (citing Spec. ¶¶ 1, 12); *see also* Reply Br. 4–5. Specifically, Appellant contends that claim 1 improves "medical prosthesis fitting techniques by overcoming challenges relating to detecting and addressing physiological cues during a fitting." *Id.* at 27. According to Appellant, claim 1 improves the fitting process by "help[ing] the clinician catch feedback events that might have been missed and provides clinical instructions" in fitting, thereby aiding a clinician to "'perform[] faster and more precise fittings of medical devices.'" *Id.* at 29 (quoting Spec. ¶ 22); *see also* Reply Br. 4–5; Spec. ¶ 13; Abstract (describing that the invention identifies physiological cues and alerts a clinician to the cues to improve the fitting process).

Yet, we are not persuaded that a clinician's failure to detect a recipient's physiological cues (due to the clinician's inattention or inexperience) is a technical problem, or that overcoming challenges related to detection is an improvement to computer capabilities or another technology. Instead, claim 1 focuses on an improvement to the abstract idea (i.e., mental processes) by invoking a computing environment, processor, and input device for implementation. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016) ("the first step in the *Alice* inquiry in this case asks whether the focus on the claim is on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a

computer database) or, instead, on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool").

Further, although claim 1 implements the abstract idea in a particular technical environment (i.e., a computer environment, processor, input device) and the implementation may well result in a faster and more precise fitting, this "improvement" is not the type of improvement that renders a claim patent eligible. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) ("relying on a computer to perform routine tasks more quickly or accurately is insufficient to render a claim patent eligible") (citations omitted).

Evaluating claim 1 as a whole, we are not persuaded that the additional elements, considered individually and as an ordered combination, integrate the abstract idea into a practical application. We find no indication that one or more additional elements reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field; requires any specialized computer hardware or other inventive computer components, i.e., a particular machine; or effects a transformation or reduction of a particular article to a different state or thing. We are not persuaded that the additional elements are more than generic computer components used to implement the abstract idea, and generally link the abstract idea to a particular technological environment or field of use. Therefore, we are not persuaded that the Examiner erred at Step 2A, Prong 2 in determining that the additional elements do not integrate the recited abstract idea into a practical application (Step 2A, Prong Two of the 2019 Revised Guidance).

Inventive Concept: Step Two of the Mayo/Alice Framework (*Step 2A, Prong 1 of the 2019 Revised Guidance*)

Having determined under step one of the *Mayo*/*Alice* framework that claim 1 is directed to an abstract idea, we next consider under Step 2B of the 2019 Revised Guidance, the second step of the *Mayo*/*Alice* framework — whether claim 1 recites additional elements that provide an inventive concept (i.e., whether the additional elements amount to significantly more than the judicial exception itself).

Appellant asserts that the Specification "identifies an unconventional technical solution: providing additional information, including the clinical instructions based on the feedback event for how to adjust the prosthesis to the clinician for use in adjusting the prosthesis." App. Br. 31. Appellant contends that "the use of sensors to assist in examination and providing the additional information . . . to the clinician for use in adjusting the prosthesis describes a specific unconventional step within the context of the claim as a whole that confines the claim to a particular useful application that improves the fitting process." *Id.* at 36; *see also id.* at 39–40 (arguing that the use of sensors to assist in examination and providing additional information is an additional element). Appellant argues that the Berkheimer Memorandum[4] instructs that "elements or combinations of elements *are not* conventional unless the examiner *expressly supports* such a showing" and that the Examiner did not make this showing. *Id.* at 32.

[4] The Office's April 19, 2018 Memorandum to the Examining Corps from Deputy Commissioner for Patent Examination Policy, Robert W. Bahr, entitled, Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)," available at https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.pdf (hereinafter "Berkheimer Memo.").

Yet, the inventive concept under step two of the *Mayo*/*Alice* test cannot be the abstract idea itself:

> It is clear from *Mayo* that the "inventive concept" cannot be the abstract idea itself, and *Berkheimer* . . . leave[s] untouched the numerous cases from this court which have held claims ineligible because the only alleged "inventive concept" is the abstract idea.

Berkheimer v. HP Inc., 890 F.3d 1369, 1374 (Fed. Cir. 2018) (Moore, J., concurring).

Here, as we explained above, the only additional recited elements beyond the abstract idea are the computing environment, processor, and input device, and the step of displaying (limitation (g)). Appellant stresses that the providing additional information to the clinician for use in adjusting the prosthesis, as required by limitation (g), has not been shown by references to be well-understood, routine, and conventional. *See, e.g.*, Reply Br. 6; App. Br. 36. Yet, paragraph 26 of Appellant's Specification describes that information "can be displayed as text, an informative video, or audio information," and that the information can be "immediately provided to the clinician" or "provided to the clinician at a later time," such as "for training purposes." There is no indication that the displaying operation recited in claim 1, limitation (g) requires more than generic components operating in their routine and ordinary capacity. The Federal Circuit, in accordance with *Alice*, has "repeatedly recognized the absence of a genuine dispute as to eligibility" where claims have been defended as involving an inventive concept based "merely on the idea of using existing computers or the Internet to carry out conventional processes, with no alteration of computer functionality." *Berkheimer v. HP, Inc.*, 890 F.3d 1369, 1373 (Fed. Cir. 2018) (Moore, J., concurring) (citations omitted).

The remaining additional recited elements beyond the abstract idea include the computing environment, processor, and input device. These limitations also are described in the Specification as generic components performing generic computer functions. *See, e.g.*, Spec. ¶¶ 14, 15, 34–38. Appellant cannot reasonably contend, nor does Appellant, that there is a genuine issue of material fact regarding whether any of these additional elements, considered alone and as an ordered combination, is well-understood, routine, or conventional, where nothing in the Specification indicates that the operations recited in claim 1 are implemented using anything other than generic computer components to perform generic computer functions, e.g., receiving and processing information, and displaying the results.

Appellant also misapprehends the controlling precedent to the extent Appellant maintain that claim 1 includes significantly more than an abstract idea because the Examiner fails to identify references that describe providing additional information, as required by claim 1's limitation (g). *See* Reply Br. 6–9; *see also* App. Br. 32–37. Neither a finding of novelty nor a non-obviousness determination automatically leads to the conclusion that the claimed subject matter is patent-eligible. Although the second step in the *Mayo*/*Alice* framework is termed a search for an "inventive concept," the analysis is not an evaluation of novelty or non-obviousness, but rather, a search for "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 Corp.*, 573 U.S. at 217–18 (citation omitted). "Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry." *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013). A novel and non-

obvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 90; *see also Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981) ("The 'novelty' of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.").

We are not persuaded of error in the Examiner's rejection of claim 1 under 35 U.S.C. § 101. Therefore, we sustain the Examiner's rejection of claim 1, and claims 2–15 and 18–30, which fall with claim 1.

DECISION

The Examiner's rejection of claim 30 under 35 U.S.C. § 112(a) is reversed.

The Examiner's rejection of claims 1–15 and 18–30 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