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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DANIEL JOHN DILORENZO

Appeal 2018-006472
Application 15/136,651
Technology Center 3700

Before MICHAEL L. HOELTER, BRETT C. MARTIN, and
JILL D. HILL, *Administrative Patent Judges*.

MARTIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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 Cyberonics, Inc. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed “to intracranial stimulation for optimal control of movement disorders and other neurological disease.” Spec. ¶ 2. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A system for monitoring a subject, the system comprising:
 - an acoustic sensor;
 - an accelerometer; and
 - a recording device coupled to the acoustic sensor and the accelerometer, wherein the recording device:
 - collects acoustic data from the acoustic sensor and acceleration data from the accelerometer;
 - measures a progression of a neurological disease of a subject using the acoustic data and the acceleration data;
 - and
 - records progression data indicating the progression of the neurological disease.

REJECTION

Claims 1–20 stand rejected under 35 U.S.C. § 101 as being directed to non-eligible subject matter. Final Act. 2.

OPINION

Subject Matter Eligibility

Standard for Patent Eligibility

In issues involving subject matter eligibility, our inquiry focuses on whether the claims satisfy the two-step test set forth by the Supreme Court in *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208 (2014). The Supreme Court instructs us to “first determine whether the claims at issue are directed to a patent-ineligible concept,” *id.* at 216–18, and, in this case, the inquiry centers on whether the claims are directed to an abstract idea. If the initial threshold is met, we then move to the second step, in which we “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.* at 217 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 79, 78 (2012)). The Supreme Court describes the second step 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.’” *Id.* at 217–18 (quoting *Mayo*, 566 U.S. at 72–73).

The USPTO recently published revised guidance on the application of § 101. *See* USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“Memorandum”). Under that guidance, 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); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a 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:

- (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.

See Memorandum.

Examiner's Findings and Conclusion

In the first step of the *Alice* inquiry, the Examiner rejects claims 1–20 because the claims are “directed to a judicial exception,” specifically “a ‘mental process.’” Final Act. 2–3. The Examiner identifies the claimed series of steps for monitoring a subject. *Id.* At *Alice* step 2, the Examiner additionally finds that the claims do not add a meaningful limitation to the abstract idea so as to amount to significantly more than the judicial exception. *Id.*

Analysis According to the Guidelines

Step One: Does Claim 1 Fall within a Statutory Category of § 101?

We first examine whether the claims recite one of the enumerated statutory classes of subject matter, i.e., process, machine, manufacture, or composition of matter, eligible for patenting under 35 U.S.C. § 101. Claim 1 is directed to a method or process, which is one of the statutory classes (i.e., a process) under 35 U.S.C. § 101.

Step 2A, Prong One: Does Claim 1 Recite a Judicial Exception?

We next look to whether the claims recite 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.

In this instance, claim 1, for example, recites the steps of collecting data and measuring progression of a neurological disease using the data. Specifically, the claims recite:

collects acoustic data from the acoustic sensor and acceleration data from the accelerometer;
measures a progression of a neurological disease of a subject using the acoustic data and the acceleration data; and
records progression data indicating the progression of the neurological disease.

Although these steps are claimed as being done by a system, the activities themselves are all capable of being performed in the human mind and, as such, each step of collecting and measuring in the claim falls into the abstract idea of mental processes. *See, e.g., CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (“That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.”). We therefore determine that claim 1 recites the abstract idea of mental processes, which is a judicial exception to patent-eligible subject matter.

Step 2A, Prong Two: Does Claim 1 Recite Additional Elements that Integrate the Judicial Exceptions into a Practical Application?

Following our Office guidance, having found that claim 1 recites a judicial exception, we next determine whether the claim recites “additional elements that integrate the exception into a practical application” (*see* MPEP § 2106.05(a)–(c), (e)–(h)). *See* Revised Guidance, 84 Fed. Reg. at 54. As noted above, each of the claimed steps is merely recited as being performed by a system. As used in the claims, the recording device of the system is merely a generic component of a computer system that does not result in an

improvement in the functioning of a computer or other technology or technological field. The recitations of the generic structures with which the recited steps are performed are merely instructions to use a recording device as a tool to perform the abstract idea. Thus, the claims do not apply, rely on, or use the mental process steps in a manner that imposes a meaningful limit on those steps. Rather, the claim is simply a drafting effort designed to monopolize the mental process steps of claim 1.

The additional elements do not add meaningful limits to the mental process steps recited in claim 1. Instead, the generic system limitations are no more than instructions to apply the judicial exception (i.e., a mental process) using a system and recording device. *See* MPEP § 2106.05(f) (“Use of a computer or other machinery in its ordinary capacity for . . . tasks (*e.g.*, to receive, store, or transmit data) or simply adding a general purpose computer or computer components after the fact to an abstract idea . . . does not provide significantly more.”).

In short, the additional elements discussed above: (1) do not improve the functioning of a computer or other technology; (2) are not applied with any particular machine; (3) do not effect a transformation of a particular article to a different state; and (4) are not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment. *See* MPEP § 2106.05(a)–(c), (e)–(h). Consequently, the claimed invention does not integrate the abstract idea into a “practical application.”

For these reasons, the additional elements of claim 1 do not integrate the judicial exception into a practical application. Thus, claim 1 is directed

to an abstract idea, which is a judicial exception to patent eligible subject matter under 35 U.S.C. § 101.

Step 2B: Does Claim 1 Recite an Inventive Concept?

We next consider whether claim 1 recites any elements, individually or as an ordered combination, that transform the abstract idea into a patent-eligible application, e.g., by providing an inventive concept. *Alice*, 573 U.S. at 217–18. The only additional elements in claim 1 are a recording device, an acoustic sensor, and an accelerometer for data collection. These additional elements do not provide, either individually or as a combination, improvements to another technology or technical field or the functioning of the computer itself.

According to Office guidance, under Step 2B, “examiners should . . . evaluate *the additional elements* individually and in combination . . . to determine whether they provide an inventive concept (*i.e.*, whether the additional elements amount to significantly more than the exception itself).” *See* Guidance 84 Fed. Reg. at 56 (emphasis added). Thus, the second step of the inquiry (Step 2B) looks at the additional elements in combination. *See, e.g.*, Examples accompanying Guidance (Example 37 (claim 3 analysis) and Example 40 (claim 2 analysis)). *See also BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (“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.”)

As noted above, the recording device and sensors are invoked as conventional tools. Apart from being used to perform the abstract idea itself, these generic system components only serve to perform well-

understood functions (e.g., storing, selecting, analyzing, and outputting data). *See FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096 (Fed. Cir. 2016) (“[T]he use of generic computer elements like a microprocessor or user interface do not alone transform an otherwise abstract idea into patent-eligible subject matter”). The sensor and accelerometer likewise are used in a conventional manner to obtain data necessary for the ultimate measuring of progression. In our view, claim 1 fails to add a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field, but instead “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.” *See* Guidance, 84 Fed. Reg. at 56. That is, we are not persuaded that claim 1 is directed to a specific application designed to achieve an improved technological result, as opposed to being directed to merely ordinary functionality of the above-recited additional elements to apply an abstract idea. For the reasons discussed above, we find no element or combination of elements recited in claim 1 that contains any “inventive concept” or adds anything “significantly more” to transform the abstract concept into a patent-eligible application. *See Alice*, 573 U.S. at 221.

Appellant’s Contentions

Appellant’s main contention against the Examiner’s rejection is that “the Examiner has not shown that the claimed features as a combination lack significantly more,” specifically the Examiner has failed to show “that measuring progression of a neurological disease using data from an acoustic sensor and an accelerometer, as recited in the claims, is conventional.”

Reply Br. 7. Appellant asserts that the claims at issue are similar to those in

BASCOM Global Internet Servs. Inc. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016) and that “the Examiner has merely performed an obviousness-type analysis by looking at each claimed feature separately.” Reply Br. 7. We first note that the claims in *BASCOM* recited a unique arrangement of known conventional pieces. *BASCOM*, 827 F.3d at 1349. Here, Appellant recites no unique arrangement, but merely the stacking of two known types of data collection.

Appellant further asserts that using the acoustic data and acceleration data represents a unique combination and the Examiner fails to address the combination apart from the elements individually. Reply Br. 7. Appellant’s claims, however, do not recite how the data is used in combination, merely that it is in combination. Simply stacking known methods of data collection and analysis without further explanation as to how some heretofore unknown synergy is achieved in the combination does not place the claims into the realm of eligible subject matter.

Further, the claims do not appear to require any combined use of the data. There is no difference in the claim between some heretofore unexplained and unique combined use and simply looking at two sets of data and making a better-informed conclusion as to progression using the two sets separately. For example, if the acoustic data showed a progression of between six and eight on a ten point scale and the accelerometer data showed a progression of between seven and nine, the ultimate conclusion would be that the progression is actually between seven and eight, which is more accurate than using either data set alone. This conclusion, however, would merely be the routine finding that the overlapping ranges between the two sets of data is indicative of the actual progression. Ultimately, one of

skill in the art performing both kinds of analysis sequentially would be using data from an acoustic sensor *and* an accelerometer and could fall within the metes and bounds of the claims without doing anything unconventional. Nothing in the claims requires any unique combination of the data to achieve a better result. Appellant relies upon the same arguments for the remainder of the claims and as such we sustain the Examiner's rejection of claims 1–20.

CONCLUSION

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	

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