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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK ALLEN NOLTE, RAJNEESH MEHRA,
BRICE MCIVER, TERNG LIM, ERIC KAYS, and HENRI MCCRACKEN

Appeal 2017-005564¹
Application 13/236,343²
Technology Center 3600

Before NINA L. MEDLOCK, BART A. GERSTENBLITH, and
TARA L. HUTCHINGS, *Administrative Patent Judges*.

HUTCHINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1, 4, 7, and 13. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Our decision references Appellants' Appeal Brief ("App. Br.," filed Oct. 31, 2016) and Reply Brief ("Reply Br.," filed Feb. 15, 2017), and the Examiner's Answer ("Ans.," mailed Dec. 15, 2016) and Final Office Action ("Final Act.," mailed May 31, 2016).

² Appellants identify Cerner Innovation, Inc. as the real party in interest. App. Br. 4.

CLAIMED INVENTION

Claims 1, 7, and 13 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method of assigning a healthcare provider to a patient based on a resource-consumption score, which suggests a relative amount of healthcare resources expended to provide care to the patient, the method comprising:

launching a clinician-assignment application on a computing device, which includes a processor coupled with a computer memory device, wherein the clinician-assignment application uses a graphical user interface to present one or more outputs and to receive one or more inputs;

presenting by the clinician-assignment application in the graphical user interface one or more outputs that include a list of clinician identifiers and a set of patient information of the patient, the set of patient information including a patient identifier of the patient, the resource-consumption score of the patient, a primary-provider identifier, and a primary-provider entry field, the primary-provider entry field being usable to transform a computing-data value that is read by the graphical user interface to display the primary-provider identifier and that is stored in a datastore;

receiving clinician-detection events from real-time location system (RTLS), the RTLS indicating locations within a healthcare facility at which a tracked object is located;

receiving a request to determine the resource-consumption score;

in response to receiving the request to determine the resource-consumption score, summing a quantity of clinician-detection events in which a previously-assigned clinician was detected in a patient-care space of the patient during a historical time interval, the summing of the quantify of clinician-detection events yielding a total quantity of clinician-detection events,

wherein each clinician-detection event is recorded by the RTLS having a signal receiver near the patient-care space, the signal receiver receiving a respective signal emitted from a signal transmitter during each clinician-detection instance, and

wherein information provided in the signal is matched to an identifier of the previously-assigned clinician;

presenting in the graphical user interface the resource-consumption score which includes the total quantity of clinician-detection events, together with the set of patient information, wherein the resource-consumption score, the patient identifier, and the clinician identifier are simultaneously presented in the graphical user interface;

receiving an input selection of the clinician identifier and the patient identifier; and

in response to receiving the input selection, transforming the computing-data value to an updated computing-data value to codify entry of the clinician identifier in the primary-provider entry field, the updated computing-data value being stored in the datastore.

REJECTION

Claims 1, 4, 7, and 13 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

ANALYSIS

Patent-Ineligible Subject Matter

Appellants argue the pending claims as a group. *See* App. Br. 14–28; *see also* Reply Br. 3–18. 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).

In the Answer, the Examiner provided a new ground of rejection of claims 1, 4, 7, and 13 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more. Ans. 2. In particular, the Examiner determined that the claims are directed to the abstract idea of “tracking and comparing clinician events and using rules to present a user-consumption score.” *Id.* The Examiner determined that this concept is similar to concepts

previously identified by the courts as abstract ideas, such as comparing new and stored information and using rules to identify options. *Id.* at 4 (citing *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App'x 950 (Fed. Cir. 2014)). The Examiner also determined that the claims are abstract because they are directed to a mental process. *Id.* at 3 (describing claim 1 as a method for receiving clinician-detection events that involves summing a quantity of clinician-detection events in which a previously-assigned clinician was detected, presenting the resource-consumption score, and transforming the computing data value to an updated computing-data value). The Examiner also determined that the claims do not include additional elements sufficient to amount to significantly more than the judicial exception because “the additional computer elements, which are recited at a high level of generality provide conventional computer functions that do not add meaningful limits to practicing the abstract idea.” *Id.* at 2.

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, 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*, 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 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).

The Court acknowledged in *Mayo*, that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. Therefore, the Federal Circuit has instructed that claims are to be considered in their entirety to determine “whether their character as a whole is directed to excluded subject matter.” *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

The Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the [S]pecification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp.*, 790 F.3d at 1346). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36. Here, the Specification, including the claim language, makes clear that the claims focus on an abstract idea, and not on any improvement to computer technology and/or functionality.

We are not persuaded that the Examiner erred in determining that the claims are directed to an abstract idea or that the Examiner otherwise overgeneralized the concept to which the claims are directed without taking the actual claim language into account. App. Br. 15–21; *see also* Reply Br. 16–17. The Specification is titled “GAUGING RESOURCE INTENSIVENESS OF PROVIDING CARE TO A PATIENT.” The Specification describes that in a healthcare environment, a clinician’s assignments are manually defined before the clinician’s shift begins. Spec. ¶ 2. For example, a nurse manager manually fills out a paper assignment sheet, assigning a nurse as a primary caregiver or a secondary caregiver of a particular group of patients. *Id.* ¶¶ 2–3. The nurse manager determines the assignments without access to relevant information, such as how much time is required to provide care to a patient. *Id.* ¶ 3. Once created, the assignments are manually entered into other electronic healthcare systems. *Id.*

Claim 1 is a method of assigning a healthcare provider to a patient based on a resource consumption score that suggests a relative amount of healthcare resources expended to provide care to the patient. The method recites the following steps: launching a clinician-assignment application; presenting a list of clinician identifiers and a set of patient information of the patient that includes, in part, a resource-consumption score; receiving clinician-detection events indicating locations within a healthcare facility at which a tracked object is located; receiving a request to determine the resource-consumption score; in response to receiving the request, summing a quantity of clinician-detection events in which a previously-assigned clinician was detected in a patient-care space of the patient during a

historical time interval; simultaneously presenting the resource-consumption score, which includes the total quantity of clinician-detection events, patient identifier, and clinician identifier; receiving an input selection of the clinician identifier and the patient identifier; and in response to receiving the input selection, transforming the computing-data value to an updated computing-data value to codify entry of the clinician identifier in the primary-provider entry field. By tracking clinician-detection events, such as the number of times a clinician enters a room during a shift, the invention determines a resource-consumption score, suggesting a relative amount of healthcare resources expended to provide care to a patient. Spec. ¶¶ 39, 47, 66. Considered in light of the Specification, the purported advance over the prior art is, thus, an improved way of assigning a healthcare provider to a patient. In that context, claim 1 is directed to collecting data (e.g., clinician-detection events, patient identifier, clinician identifier), analyzing the data (e.g., summing the clinician-detection events to yield a total quantity of clinician detection events), and presenting the results (e.g., presenting the resource-consumption score, which includes the total quantity of clinician-detection events, together with a set of patient information). In other words, we agree with the Examiner that claim 1 is directed to tracking and comparing clinician-detection events and using rules to present a resource-consumption score—a method of organizing human activity, and, therefore, an abstract idea.

The Federal Circuit has consistently held that abstract ideas include the concepts of collecting data, analyzing the data, and displaying the results of the collection and analysis, including when limited to particular content. *See, e.g., Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d

1332, 1340 (Fed. Cir. 2017) (identifying the abstract idea of collecting, displaying, and manipulating data); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (characterizing collecting information, analyzing information by steps people go through in their minds, or by mathematical algorithms, and presenting the results of collecting and analyzing information, without more, as matters within the realm of abstract ideas); *see also SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018) (“As many cases make clear, even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” (quoting *Elec. Power Grp.*, 830 F.3d at 1353, 1355 (citing cases))).

We are not persuaded by Appellants’ argument that the claims are tied to a machine that plays a significant role in the claims. App. Br. 20–21. Appellants assert that “the claimed methods cannot be performed mentally because they rely on the use of machines and systems” (App. Br. 20), and “the claims recite specific systems that are integral to the processes [recited in claim 1]” (*id.* (directing our attention to the claimed RTLS)). *See also id.* at 21 (pointing to claim 7’s recitation for “receiving medical-device events from a medical-device-alarm system, the medical-device-alarm system including at least one of an oxygen monitor, an infusion pump, a cardiac ventilator, a balloon pump, a patient bed, or a vital-sign detecting device”). The limitations Appellants identify as tying the claims to a machine relate to limiting the source of the information collected and analyzed to a particular source, but this is not enough to make the collection and analysis other than abstract. *See SAP Am.*, 898 F.3d at 1168 (quoting *Elec. Power Grp.*, 830 F.3d at 1353, 1355). Moreover, claim 1 is not tied to any particular

novel machine or apparatus; instead, claim 1, for example, receives events from any “real-time location system,” which includes any signal receiver that receives or detects a signal from a signal transmitter. *See* Spec. ¶ 66. Here, the Specification indicates that the claimed invention can be implemented using only generic computer components. *See, e.g.,* Spec. ¶¶ 15–26, 28, 34 (identifying known medical devices, such as an oxygen monitor, an infusion pump, a cardiac ventilator, a balloon pump, a patient bed, and vital-sign detecting device), 37, 40, 66. *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.”).

We are not persuaded by Appellants’ argument that the claims recite a technology-based solution comprising a specific, discrete implementation. *See* App. Br. 22–25; *see also* Reply Br. 3 (“the claims recite specific processes that use particular techniques to generate and analyze particular information and apply the results in a practical application so as to achieve a desired outcome”). Attempting to draw an analogy to the claims at issue in *BASCOM*, Appellants assert that claim 1’s limitations “describe ‘a **specific, discrete implementation**’ of elements that add significantly more to the alleged abstract ideas.” App. Br. 23 (quoting *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016)); *see also id.* at 25–27 (inventive concept in the non-conventional and non-generic arrangement of known elements); Reply Br. 9–12, 17–18. Yet, the Federal Circuit in *BASCOM* held that the claimed invention improved the performance of the computer system itself. *BASCOM*, 827 F.3d at 1351. Specifically, the court found that the patent-at-issue claimed a “technology-

based solution” to filter content on the Internet that overcame existing problems with other Internet filtering systems, making it more dynamic and efficient. *Id.* In *BASCOM*, the non-conventional and non-generic arrangement of known conventional pieces resulted in an inventive concept.

Here, Appellants’ claim 1 focuses on improving a business practice that itself is an abstract idea using generic computer components in their ordinary capacity. Merely limiting the scope of an abstract idea to recite a higher level of specificity does not make a claim any less abstract. Appellants do not identify, and we do not find, any improvement to computer technology analogous to the ordered combination described in *BASCOM*. Appellants do not identify, and we do not find, any additional element or elements recited in claim 1 that yield an improvement in the functioning of a computer, or to another technology or technical field, or that otherwise indicates that the claimed invention integrates the abstract idea into a “practical application,” as that phrase is used in the USPTO’s “2019 Revised Patent Subject Matter Eligibility Guidance,” 84 Fed. Reg. 50, 55 (January 7, 2019). Instead, at best, claim 1 applies the abstract idea to a particular technological environment. *See Alice*, 573 U.S. at 223 (limiting the use of the abstract idea to a particular technological environment is insufficient to transform an abstract idea into patent-eligible subject matter).

We are not persuaded by Appellants’ argument that the Examiner disregards the specific limitations of the claim to conclude the individual functions are well-understood, routine, and conventional activities previously known in the industry. App. Br. 23–25. Pointing to the recitation of receiving clinician-detection events from RTLS, Appellants assert that “[t]hese and other limitations realize the improvement to

conventional industry practice.” *Id.* at 24–25. Yet, the relevant inquiry is whether the claim includes elements other than the abstract idea that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 78). Here, receiving clinician-detecting events is part of the abstract idea itself, and use of the RTLS as the source of the clinician-detecting events does not transform the abstract idea into patent-eligible subject matter.

To the extent Appellants maintain that claim 1 recites limitations that are not well-understood, routine, and conventional activities, because claim 1 is novel and/or non-obvious in view of the prior art, Appellants’ argument is not persuasive. 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*, 573 U.S. at 217–18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73). A novel and non-obvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 90.

We are not persuaded that there is any parallel between claim 1 and the claims in *McRO*. Reply Br. 10–13, 15, 16. Appellants maintain that claim 1, like the claims found patent-eligible in *McRO* uses “a combined order of specific rules to render information into a specific format that is then applied to create at least one desired result by taking the unique data that was generated and analyzed . . . and controlling the presentation of the specific results on a graphical user interface and receiving input.” *Id.* at 12.

Directing our attention to the limitations recited in claim 1 for presenting the resource-consumption score, receiving an input selection, and transforming the computing-data value, Appellants conclude that claim 1 thus does not “abstractly cover results where ‘it matters not by what process or machinery the result is accomplished.’” *Id.* at 12–13 (citation omitted).

Yet, *McRO* described an improvement to a 3-D computer generated lip synchronization animation by using specific rules to define output morph weight set stream as a function of phoneme sequence and time of the phoneme sequence. *McRO*, 837 F.3d at 1310. Using these specific rules allows a computer to produce accurate and realistic synchronization in animated characters, which previously required human animators or artists to produce. *Id.* at 1313. Here, Appellants have not persuaded us that claim 1 recites a comparable improvement to technology.

We also are not persuaded by Appellants’ argument that the Board’s decision in *Ex parte Scott*, Appeal No. 2012-009834, 2015 WL 1093453 (PTAB Mar. 12, 2015), found “a similar process of controlling how results are presented via the graphical user interface [to] qualif[y] as significantly more.” Reply Br. 13 (“the Board found that a specific method of ‘using a tangible device—a user interface—to control the appearance of information represented on a display’ qualified as adding significantly more than the abstract idea of ‘displaying data’”). What a different panel did in a different situation under a different set of facts has little bearing on the proper disposition of this case. *Scott* also is a non-precedential decision of the Board; therefore, it is not binding on this panel.

We are not persuaded, on the present record, that the Examiner erred in rejecting independent claim 1 under 35 U.S.C. § 101. Therefore, we

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sustain the Examiner's rejection of claim 1, and claims 4, 7, and 13, which fall with claim 1.

DECISION

The Examiner's rejection of claims 1, 4, 7, and 13 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