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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte COLLEEN ENNETT, PRADYUMNA DUTTA, and
N. STEPHEN OBER

Appeal 2017-002397
Application 12/808,371
Technology Center 3600

Before MAHSHID D. SAADAT, JOHN D. HAMANN, and
JASON M. REPKO, *Administrative Patent Judges*.

REPKO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants¹ appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1–20 and 24–29. App. Br. 4.² Claims 21–23 were canceled. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

¹ Appellants identify the real party in interest as Koninklijke Philips N.V., Eindhoven, NL. App. Br. 2.

² Throughout this opinion, we refer to the Final Rejection (“Final Act.”) mailed May 31, 2016; the Appeal Brief (“App. Br.”) filed September 7, 2016; the Examiner’s Answer (“Ans.”) mailed October 20, 2016; and the Reply Brief (“Reply Br.”) filed December 12, 2016.

THE INVENTION

Appellants' invention identifies time-dependent relationships in data, including data about medical events. Spec. 1:1–7, 4:10–32. According to the Specification, users have resisted previous attempts to introduce decision-support systems to the clinical environment. *Id.* at 1:8–9. The Specification explains that, to be accepted by users, these systems must present new information in a meaningful way. *Id.* at 1:9–11. For instance, a system can overload a clinician with spurious data about unrelated or unassociated outcomes, events, and interventions. *Id.* at 5:12–14. To address this issue, among others, one embodiment uses time-dependent relationships to produce clinical associations between events. *Id.* at 6:3–7. These events include a medical subject's experiences, medical interventions, and corresponding outcomes. *Id.* The invention can then present or store the identified and associated data. *Id.* at 6:7–10.

Claim 17 is reproduced below:

17. A method comprising:

identifying, in subject information indicative of a subject that has experienced an event requiring a medical intervention, a subject outcome;

filtering, with a micro-processor, which allows the identified outcome occurring during an outcome time interval to pass, wherein the outcome time interval is a time frame only in which the medical intervention will have an effect on the subject after application of the medical intervention to the subject; and

associating, with the micro-processor, the identified outcome and the medical intervention which was applied to the subject based on a result of the outcome time interval passed in response to the identified outcome occurring during the outcome time interval; and

presenting data indicative of the association between the event, the outcome and the medical intervention, wherein the presented data indicates the medical intervention resulted in the identified outcome during the outcome time interval.

THE REJECTION

Claims 1–20 and 24–29 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 2–6.

ANALYSIS

The Examiner rejects representative³ claim 17 under 35 U.S.C. § 101 because the claim as a whole (1) is directed to an abstract idea and (2) does not contain an “inventive concept” sufficient to transform the claimed abstract idea into a patent-eligible application. Final Act. 2–6. For the reasons discussed below, Appellants have not persuaded us of error.

I

The Supreme Court’s two-step framework guides the analysis. *See Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014). According to step one, “[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Id.*

According to Appellants, “[t]he present application addresses a business challenge and a medical challenge of how to effectively and efficiently identify relationships between events, medical interventions, and

³ Appellants argue claims 1–20, 24, 25, and 27–29 as a group. *See App. Br.* 4–7. We select independent claim 17 as representative of claims 1–20, 24, 25, and 27–29. *See* 37 C.F.R. § 41.37(c)(1)(iv).

outcomes, which include a temporal relationship.” App. Br. 7. For example, a system can overload a clinician with spurious data about unrelated or unassociated outcomes, events, and interventions. Spec. 5:12–14. The invention addresses this challenge by filtering data. *See, e.g., id.* at 10:30–11:8.

In Appellants’ view, “the filter of the present claims is analogous to the filtering of” the claims at issue in *BASCOM Global Internet Services. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016). Reply Br. 4. Notably, the court in *BASCOM* explained that “filtering content is an abstract idea because it is a longstanding, well-known method of organizing human behavior, similar to concepts previously found to be abstract.” 827 F.3d at 1348. For at least the reason that they are directed to filtering content, Appellants’ claims are directed to an abstract idea. *Accord* Final Act. 7.

But unlike the invention held patent eligible in *BASCOM*, claim 17 does not recite an improvement to a computer’s capabilities to perform the filtering. Appellants argue that the claims are tied to a specific machine because the claims include a configured microprocessor. App. Br. 5. According to Appellants, “[t]hese ties are not abstract ideas.” *Id.*; *see also* Reply Br. 2 (discussing the microprocessor). The claims, however, are broadly functional and focused on the results, rather than the computer implementation.

In particular, claim 17 recites identifying a subject outcome, filtering, and associating the identified outcome. The method then presents the data showing the association between the event, outcome, and medical intervention. Yet the claim’s focus is not on an improvement to a

computer’s filtering capabilities. The filtering algorithm is not even claimed. Nor does claim 17 recite a specific computer-based algorithm for making the associations, like those processes found patent-eligible. *See McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (finding that claims involving a specific structure of the rules for automated lip-synchronization of three-dimensional characters were patent-eligible), *discussed in* Reply Br. 3. Claim 17 broadly recites using a computer as a tool to perform the associating, filtering, and identifying.

Essentially, the claim is focused on identifying and associating information of a specified content—i.e., subject information, outcomes, time frames, among other data. Appellants attempt to distinguish claim 17 from those found ineligible by the Federal Circuit by pointing to the type of information processed. *See* Reply Br. 2–3. But “[i]nformation as such is an intangible” and collecting information limited to particular content is within the realm of abstract ideas. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016), *cited in* Ans. 6; *see also Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (identifying “the abstract idea of 1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory”). Therefore, we agree with the Examiner that claim 17 is further directed to the abstract idea of receiving and analyzing data to obtain a result. Ans. 6.

II

Because the claims are “directed to an abstract idea,” we analyze the claim limitations “both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the

claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355. The Supreme Court has described this analysis “as a search for an ‘inventive concept.’” *Id.*

Appellants argue that the current industry practice uses case-based reasoning (CBR) paradigms to retrieve past cases that are similar to a present problem. App. Br. 5–6. According to Appellants, these “CBR paradigms do not consider the temporal dimension for the subject with a present problem—e.g., temporally filtering the outcomes.” *Id.* at 6.

But using well-known computer functions to execute the abstract idea—even if the claim limits the use of the idea to CBR paradigms with a temporal aspect—does not add significantly more. *See Parker v. Flook*, 437 U.S. 584, 590 (1978) (limiting a computer-implemented abstract idea to the petrochemical industry was insufficient), *cited in Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 81 (2012). Although Appellants explain that the recited micro-processor is not conventional or generic (Reply Br. 2), the Specification explains that the computer is merely used to carry out the invention when programmed. *See Spec.* 2:4–6; *accord* Final Act. 10; Ans. 2.

Moreover, the Examiner finds, and we agree, that filtering events considering time was well-known, routine, and conventional. Final Act. 3 (citing *Spec.* ¶¶ 40, 42, 56–58).⁴ For example, the Specification explains that an event of interest can be acute hypotension. *Spec.* 11:1–5. Acute

⁴ Here, the Examiner’s citations are to the published application. *See* Final Act. 3. For clarity, our citations in the paragraph are to the page and line numbers in the originally filed Specification (page 11) corresponding to paragraph 56 of US 2010/0324938 A1.

hypotension is defined as a 20% drop in blood pressure from the last baseline in less than fifteen minutes. *Id.* at 11:1–3. This definition is established through wide acceptance of its meaning in the medical community, case studies, or other ways. *Id.* at 11:3–5. Using the known and accepted definition, Appellants’ event filter processes event data to determine whether the subject experiences the hypotension. *Id.* at 11:5–8. Therefore, as explained in the Specification, filtering a medical event by time was a well-known and conventional practice in the medical community. *See id.* at 11:1–8, *discussed in* Ans. 4–5.

The claims do add some hardware to this filtering—i.e., a “micro-processor” and a data store, as Appellants discuss. *See* App. Br. 7. We, however, disagree that the claim involves an inventive distribution of function between the recited computer components, like those found eligible in *BASCOM*. Reply Br. 4; *see BASCOM*, 827 F.3d at 1341. Rather, claim 17 broadly and abstractly recites “identifying,” “filtering,” and “associating” with the generic programmed processor. *See* Spec. 2:4–6 (describing the processor’s role); *accord* Ans. 2. Instead of claiming a specific way of improving the computer’s filter, the limitations are merely result-oriented. *See Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (concluding claim 1 is not directed to patent-eligible subject matter and stating that the claim “describes the effect or result dissociated from any method” for accomplishing the task).

In summary, the claimed steps, considered individually, do not contain an inventive concept under *Alice* step two.

Considering the limitations as an ordered combination, claim 17 involves conventional technology programmed to filter and associate data.

See Spec. 2:4–6. Appellants argue that the claims use software and computers to transform data. App. Br. 7. But “the fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.”

Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.), 687 F.3d 1266, 1278 (Fed. Cir. 2012); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (“[R]elying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.”). Here, the computer only adds accuracy and speed to the identification of relationships between events, interventions, and outcome. *See* Final Act. 5. Notably, the claimed invention addresses a business challenge (*accord* App. Br. 7), not a challenge specific to computers, and the generically recited computer components in the claim reflect this.

Therefore, we agree with the Examiner that the claims lack an inventive concept sufficient to transform the claimed abstract idea into patent-eligible subject matter. Final Act. 4–5.

We are unpersuaded by Appellants’ argument that the claims do not preempt other case-based reasoning in the medical field. App. Br. 5. According to Appellants, the claims are focused on identifying the relationship between an event, outcome, and medical intervention for a time interval. *Id.* Although the extent of preemption is a consideration, the absence of complete preemption is not dispositive. *See, e.g., Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (“While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.”).

Furthermore, “questions on preemption are inherent in and resolved by the § 101 analysis” that we have applied above. *Id.* Nevertheless, in this case, apart from limiting the method to a particular data set, claim 17 effectively covers any filtering that obtains the recited result, which is broadly preemptive. In this way, the claims are directed to the result itself and merely invoke generic processes and computers.

Therefore, Appellants have not persuaded us of error in the rejection of representative claim 17 under 35 U.S.C. § 101, and claims 1–16, 18–20, 24, 25, and 27–29, which are not argued separately (*see* App. Br. 4–7).

Claim 26

Claim 25, from which claim 26 depends, recites, in part, “wherein the data causes the microprocessor to construct a signal indicative of one or more interventions, and further including: receiving a *user input selecting an intervention* from the one or more interventions based on the signal” (emphasis added). Claim 26 recites “[t]he method of claim 25, wherein the *selected intervention* is an IV fluid” (emphasis added).

Appellants argue that the IV-fluid intervention supplies the inventive concept under *Alice* step two. App. Br. 6. The selected intervention, however, is nothing more than data collected from the user. This limitation on the type of intervention merely confines the abstract idea to a particular environment, which cannot supply an inventive concept under *Alice* step two. *See Alice*, 134 S. Ct. at 2358. Indeed, “[t]he mere combination of data sources, however, does not make the claims patent eligible.” *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016). Accordingly, we sustain the Examiner’s rejection of claim 26. *See* Final Act. 4–5.

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DECISION

We affirm the Examiner's rejection of claims 1–20 and 24–29.

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