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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WESLEY CURTIS and KAREL P. CRIGAN

Appeal 2017-001246¹
Application 13/777,261
Technology Center 3600

Before MURRIEL E. CRAWFORD, MICHAEL W. KIM, and
PHILIP J. HOFFMANN, *Administrative Patent Judges*.

KIM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal from the final rejection of claims 1–16 and 18–20.
We have jurisdiction to review the case under 35 U.S.C. §§ 134 and 6.

The invention relates generally to “managing data maintenance using
a business object lifecycle.” Spec. ¶ 15.

Claim 15 is illustrative:

15. A computer-implemented method that is performed by
a computer system, the method comprising:

¹ The Appellants identify Oracle Int’l Corp. as the real party in interest.
Appeal Br. 2.

defining, by at least the processor, a lifecycle for a customer tax role record having a plurality of lifecycle states and assigning an initial active state from the plurality of lifecycle states to the customer tax role record;

associating, by at least the processor, processing algorithms with the customer tax role record that are triggered by predefined events including an expiration date for a tax obligation and a tax obligation period;

monitoring a plurality of electronic data structures that comprise a plurality of customer tax role records with an active state, and;

in response to detecting one or more of the predefined events, executing, by at least the processor, a respective one of the processing algorithms to modify respective records of the plurality of customer tax role records by (i) generating a new tax obligation for a respective record by executing at least one of the processing algorithms associated the respective record;

(ii) changing the state of the respective record to an expired state such that the new tax obligation is not generated when the expiration date has expired.

The Examiner rejected claims 1–16 and 18–20 under 35 U.S.C. § 101 as directed to ineligible subject matter in the form of abstract ideas.

We AFFIRM.

ANALYSIS

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 implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

In determining whether a claim falls within the excluded category of abstract ideas, we are guided in our analysis by the Supreme Court’s two-

step framework, described in *Mayo* and *Alice*. *Id.* at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77–78 (2012)). In accordance with that framework, we first determine whether the claim is “directed to” a patent-ineligible abstract idea. *See Alice*, 134 S. Ct. at 2356 (“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.”); *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”); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (“Analyzing respondents’ claims according to the above statements from our cases, we think that a physical and chemical process for molding precision synthetic rubber products falls within the § 101 categories of possibly patentable subject matter.”); *Parker v. Flook*, 437 U.S. 584, 594–595 (1978) (“Respondent’s application simply provides a new and presumably better method for calculating alarm limit values.”); *Gottschalk v. Benson*, 409 U.S. 63, 64 (1972) (“They claimed a method for converting binary-coded decimal (BCD) numerals into pure binary numerals.”).

The following method is then used to determine whether what the claim is “directed to” is an abstract idea:

[T]he decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided. *See, e.g., Elec. Power Grp. [v. Alstom S.A.]*, 830 F.3d [1350,] 1353–54 [(Fed. Cir. 2016)]. That is the classic common law methodology for creating law when a single governing definitional context is not available. *See generally* Karl N. Llewellyn, *The Common Law Tradition: Deciding Appeals* (1960). This more flexible approach is also the approach

employed by the Supreme Court. *See Alice*, 134 S. Ct. at 2355–57. We shall follow that approach here.

Amdocs (Israel) Limited v. Openet Telecom, Inc., 841 F.3d 1288, 1294 (Fed. Cir. 2016) (footnote omitted).

The patent-ineligible end of the spectrum includes fundamental economic practices, *Alice*, 134 S. Ct. at 2357; *Bilski*, 561 U.S. at 611; mathematical formulas, *Flook*, 437 U.S. at 594–95; and basic tools of scientific and technological work, *Benson*, 409 U.S. at 69. On the patent-eligible side of the spectrum are physical and chemical processes, such as curing rubber, *Diamond*, 450 U.S. at 182 n.7, “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores,” and a process for manufacturing flour, *Gottschalk*, 409 U.S. at 67.

If the claim is “directed to” a patent-ineligible abstract idea, we then consider the elements of the claim—both individually and as an ordered combination—to assess whether the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea. *Alice*, 134 S. Ct. at 2355. This is a search for an “inventive concept”—an element or combination of elements sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself. *Id.*

The Appellants argue independent claims 1, 6, 8, and 15 together as a group. Appeal Br. 18. We select independent claim 15 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

We are not persuaded by the Appellants’ argument of error on the part of the Examiner, because, according to the Appellants, “the Office Action has simply provided a conclusion without any reasoning.” Appeal Br. 11; *see also* Reply Br. 4 (“The only statements made by the Examiner were

subjective opinions that the present invention is an abstract idea using a generic computer.”).

Instead, the Examiner found claim 15 is “directed to the abstract idea of comparing new and stored information and using rules to identify options which is an idea of itself identified by the court (*SmartGene*). The abstract idea is recited in claim 1 in the storing, defining, associating, monitoring, generating and changing steps.” Final Act. 5. The Examiner has, thus, followed the direction from *Amdocs* and found claim 15 is similar to a claim found to be directed to an abstract idea by our reviewing court.

Furthermore, substantively, we agree with the Examiner. Claim 15 recites defining data, associating the data with algorithms, monitoring data states, then conditionally, upon an event which may occur, adding data and changing a data state. The method steps of claim 15, other than the use of a “processor” and “electronic data,” fall inside the scope of “comparing new and stored information and using rules to identify options,” because defining data creates new data, associating data with algorithms involves comparing information and identifying options to use against the data, monitoring data states involves comparing information, and adding data and changing data states involves comparing data and using rules to identify an option to alter data and states. We further find the Examiner’s identification of *SmartGene*² as an analogous case to be reasonable, and, in any case, the Appellants have not advanced arguments specifically directed to the Examiner’s finding in that regard.

² *SmartGene, Inc. v. Advanced Biological Laboratories, SA*, 555 F. App’x 950 (Fed. Cir. 2014).

We also find claim 15 similar to the claims found ineligible in *Accenture Global Services, GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336 (Fed. Cir. 2013). In the *Accenture* patent, the system of claim 1 recites a database for storing transaction information, a database for storing rules, a “client component” that enables access by a user, and a “server component including an event processor, a task engine[,] and a task assistant,”

wherein the event processor is triggered by application events associated with a change in the information, and sends an event trigger to the task engine; wherein in response to the event trigger, the task engine identifies rules in the task library database associated with the event and applies the information to the identified rules to determine the tasks to be completed, and populates on a task assistant the determined tasks to be completed, wherein the task assistant transmits the determined tasks to the client component.

See US 7,013,284 B2, iss. Mar. 14, 2006.

We find that *Accenture*’s generating of rule-based tasks is similar to the execution of algorithms upon an event of the Appellants’ claim 15. In *Accenture* the information has to do with insurance transactions, and in the present claims the information has to do with “customer tax role records” and other tax-related information (*see* Spec. ¶ 16), but we do not discern that the nature of the information’s content appreciably alters the otherwise abstract process of using it to determine steps to take next. In addition, the Appellants describe the broad reach of their invention generally, in that “it is to be understood that the embodiments are applicable and provide benefits in any logic or system wherein data of any type is maintained and wherein management of the data maintenance is performed.” *Id.* ¶ 15.

We, thus, agree with the Examiner that claim 15 is directed to an abstract idea, and proceed to the second step of the *Mayo/Alice* analysis and

look to the claims, as a whole and as an ordered combination of steps, to see if there is an “inventive concept” that transforms the abstract idea into patent-eligible subject matter. To that end, the Examiner does not find an inventive concept, and we are unpersuaded of Examiner error in that regard.

Other than the recited “defining, by at least the processor,” “executing, by at least the processor,” and “electronic data structures,” the claim presents no other language that falls outside the abstract idea identified above. Without these elements, the process of creating, storing, monitoring, and altering data can be done by a human mind with the use of pen and paper, which further describes an abstract idea. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (noting, in the context of the claims in that case, that “a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101”). Additionally, mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *Id.* at 1375 (“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*, [409 U.S. 63 (1972)].”).

The Specification describes that the processor is part of a general-purpose computer, in that the “computer system 500 comprises at least a processor 502 and a non-transitory memory 504 coupled with the processor 502 via a bus 508. The memory 502 is configured to store one or more customer registration records 512 for one or more customers.” Spec. ¶ 39. The Specification does not define or otherwise describe the claimed “processor,” except to say the “methods described herein are computer-

implemented methods that are performed by at least a processor of a computing device.” *Id.* ¶ 52.

Appellants argue:

Generic computers do not define lifecycle states for data records as recited in the claim. Generic computers do not associate processing algorithms with data records as recited in the claim. Generic computers do not continuously monitor a plurality of electronic data structures to identify when one or more of the predefined events occur.

Reply Br. 5.

The Appellants’ argument is unpersuasive, because the steps of the method, to create and store data, monitor data, associate algorithms with data, and edit data upon an event, are all general purpose computing steps any general purpose computer is capable of performing, by reading, writing, and comparing data, and executing loops to wait for, and react to, events. In addition, although an algorithm programmed into a general-purpose computer may transform it into a patent-eligible special-purpose computer, and claim 15 does expressly recite the term “algorithm,” no actual, specific algorithm is described or claimed, except generically. *See* Spec. ¶¶ 31, 37 (cited at Appeal Br. 8–9). Therefore, we do not discern that the claim recites more than the use of a general-purpose computer to perform an abstract-idea method.

This also applies to the remainder of the Appellants’ arguments that, for example, the claimed method is “necessarily rooted in computer technology to overcome a problem specifically arising in electronic data maintenance of records.” Appeal Br. 12; *see also id.* at 13–16.

We are not persuaded by the Appellants’ argument that “the claimed functions transform the computer into a particular machine.” Appeal Br. 17.

Because the claimed method appears to involve only generic computing functions performed by general-purpose computers, as set forth above, we are unpersuaded that the claimed “processor” is a “particular machine.”

We also are not persuaded by the Appellants’ argument that the claim is patent-eligible subject matter because it recites “a transformation of state of the data structures and a transformation of the storage device that stores the records.” Reply Br. 5–6; *see also* Appeal Br. 18 (“generating of a new tax obligation specifically transforms the occurrence of a predefined event into a new tax obligation”). The transformation of a state, such as from a “0” to a “1,” does not transform a physical article, and changing what data is, or what data a storage device stores, only alters the abstract data representation itself, which does not significantly alter the storage device itself. In other words, if you change data, you still have data, so no transformation has taken place in the change. Moreover, as noted by the Appellants, the only “state” purportedly changed are tax obligations, which is an intangible legal concept.

The Appellants also argue in the Reply Brief, for the first time, that the claim “does not preempt all ways of processing data records on a computer,” and is similar to claims in patents issued just before the Brief was filed. Reply Br. 6–10.

We are unpersuaded by the new pre-emption argument, because, “[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (“[T]hat the claims do not preempt all price optimization or

may be limited to price optimization in the e-commerce setting do not make them any less abstract.”). And, “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa*, 788 F.3d at 1379.

Finally, we are unpersuaded by the Appellants’ argument that because “no prior art has been found that teaches or suggests the claim elements, claim [15] is not ‘well-understood, routine and conventional’ and is not a generic abstract idea.” Reply Br. 6. 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*, 450 U.S. at 188–89 (“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.”).

In addition, although the Examiner uses the phrase “updating records to a current status is well-understood, routine and conventional,” the Examiner is not asserting that steps in the claimed method are well-understood, routine, and conventional. *See Answer 3*. Instead, the Examiner is asserting that the mere updating of data records by modifying data is essentially an output step, and, thus, insignificant extra-solution activity.

For these reasons, we agree with the Examiner that claim 15 is directed to an abstract idea and fails to recite an inventive concept that transforms the abstract idea into patentable subject matter. Therefore, we sustain the rejection of claims 1–16 and 18–20 as directed to abstract ideas under 35 U.S.C. § 101.

Appeal 2017-001246
Application 13/777,261

DECISION

We AFFIRM the rejection of claims 1–16 and 18–20 under 35 U.S.C. § 101.

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