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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HYUN JOO KIM and GUEYOUNG JUNG

Appeal 2018-002762¹
Application 13/870,165²
Technology Center 2100

Before MICHAEL W. KIM, KALYAN K. DESHPANDE, and
RAMA G. ELLURU, *Administrative Patent Judges*.

ELLURU, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellants appeal from the Examiner’s decision to reject claims 1–8, 10–19, and 21. We have jurisdiction under § 6(b).

We AFFIRM.

¹ We reference the Specification (“Spec.,” filed Apr. 25, 2013), Appeal Brief (“App. Br.,” filed Aug. 29, 2017), and Reply Brief (“Reply Br.,” filed Jan. 16, 2018), as well as the Examiner’s Answer (“Ans.,” mailed Nov. 15, 2017) and Final Office Action (“Final Act.,” mailed Mar. 31, 2017).

² According to the Appeal Brief, the real party in interest is CONDUENT BUSINESS SERVICES, LLC. Appeal Br. 1.

SUBJECT MATTER ON APPEAL

The invention “is directed to the data management arts, data storage arts, data analytics arts, cloud computing arts and the like.” Spec. ¶ 1. More specifically, the invention contemplates “a system and method . . . for autonomic data placement and movement for increasing big data based on the priority of data and various costs.” Spec. ¶ 16.

Claims 1, 11, and 18 are the independent claims on appeal. Independent claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for autonomic data storage and movement, comprising: calculating at least one cost associated with received data; responsive to at least one calculated cost, determining a processing type associated with the received data;
 - classifying the received data as one of a set of hierarchical storage classes in accordance with the determined processing type;
 - identifying a storage location associated with the one of the set of hierarchical storage classes in which the received data was classified; and
 - storing the received data in the identified storage location, wherein at least one of the calculating, classifying, identifying, and storing is performed with a computer processor.

App. Br. 53 (Claims Appendix).

REJECTION

Claims 1–8, 10–19, and 21 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 2–3.

ANALYSIS

Claims 1–8, 10–19, and 21 rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter

Appellants argue claims 1–8, 10–19, and 21 as a group.³ App. Br. 11–26; Reply Br. 3–12. We select independent claim 1 as representative. The remaining claims of the group stand or fall with independent claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

To “distinguish[] patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts,” the Supreme Court has provided a two-step framework. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014). The first step considers whether a claim is directed to a patent-ineligible concept, e.g., an abstract idea. *Id.* (citing *Mayo*, 132 S. Ct. at 1296–97). If so, the second step then considers whether the claim recites an inventive concept—an element or combination of elements sufficient to ensure the claim amounts to significantly more than the abstract idea and transforms the nature of the claim into a patent-eligible application. *Id.* (citing *Mayo*, 132 S. Ct. at 1294, 1297–98).

In determining that independent claim 1 is directed to an abstract idea, the Examiner finds that claim 1 is directed to a method consisting of the steps “estimating a storing cost of data, estimating a processing cost of the data, determining [sic] processing type for the data, classifying the data,

³ Though Appellants argue that Examiner failed to analyze each dependent claim separately, we are unpersuaded that these claims require separate analyses. App. Br. 12, 14. Appellants did not provide any arguments for dependent claims 18 and 21 that differed from those made for claim 1. Compare App. Br. 1–21, with App. Br. 26–36, and App. Br. 40–50.

identifying a storage location, and storing the data.” Ans. 3; Final Act. 3. The Examiner also finds that “[t]he recited elements in the claim, ‘a data analytics platform,’ ‘a cost calculator,’ ‘a plurality of hierarchical storage locations,’ ‘a priority calculator,’ ‘memory which stores instructions,’ and ‘a processor’ are generic computer elements.” Final Act. 4. The Examiner determines that “[i]nstructing one to ‘apply’ an abstract idea and reciting no more than generic computer elements performing generic computer tasks does not make an abstract idea patent eligible.” Ans. 4. The Examiner further determines that nothing in claim 1, except for its reciting a generic computer to implement the steps, precludes a person from performing the claim’s steps either mentally or with a pen and paper. Final Act. 3–4; Ans. 3.

Under the first step of the *Alice* analysis, Appellants argue that the claims are not directed to an abstract idea, because they claim “a limited and specific apparatus or method for achieving the end result.” App. Br. 13. In support, Appellants cite *Diamond v. Diehr* and argue that the judicial exception applies to prevent patenting claims that abstractly cover the results where it matters not by what process or machine the result is accomplished; in other words, whether the claims are directed to an effect or an end result rather than the process itself. *Id.* (citing *Diamond v. Diehr*, 450 U.S. 175 (1981)). We are not sufficiently persuaded by Appellants’ argument.

In *Diehr*, the Supreme Court did not discern whether the patentee was claiming the process incorporating the mathematical formula or the product created by that process, as urged by Appellants. Rather, the Supreme Court focused on whether the invention as a whole—irrespective of its using the mathematical formula—accomplished something that one could not

otherwise accomplish simply by applying the mathematical formula. *Diehr*, 450 U.S. at 187 (“Obviously, one does not *need* a ‘computer’ to cure natural or synthetic rubber, but if the computer use incorporated in the process patent *significantly lessens* the possibility of ‘overcuring’ or ‘undercuring,’ the process as a whole does not thereby become unpatentable subject matter.”) (emphasis added).

Here, as the Examiner found, the claimed steps include “estimating a storing cost of data, estimating a processing cost of the data, determining [sic] processing type for the data, classifying the data, identifying a storage location, and storing the data.” Ans. 3. The Examiner further found that “[c]onceptually, the claim is not much different than a person, mentally or with pen and paper” calculating and deciding where to store the data. *Id.* So, unlike the patent at issue in *Diehr*, the current invention’s use of the computer does nothing more than make “estimating a storing cost of data, estimating a processing cost of the data, determining [sic] processing type for the data, classifying the data, identifying a storage location, and storing the data.” And, while these multiple calculations “may be better suited for use with a computer technology,” (Reply Br. 6), we agree with the Examiner that one can nevertheless accomplish these calculations mentally or using pen and paper. *See* Ans. 3.

Appellants further argue that the claims are not directed to an abstract idea, because the complex process cited in the claims solve an extremely technical problem “in the realm of data management and data storage technology, and, in particular to autonomic storage and movement of data.” App. Br. 14. In this regard, Appellants cite *Enfish v. Microsoft* for its holding valid a patent directed at an improvement to computer technology.

App. Br. 14 (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016)). We are not persuaded by this argument.

The invention at issue in *Enfish* was directed at a wholly new type of logical model for a computer database: a self-referential table that allowed the computer to store many different types of data in a single table and index that data by column and row information. *See* 822 F.3d at 1330–32. In finding the claims “not directed to an abstract idea,” but “to a specific improvement to the way computers operate,” the Federal Circuit noted that “the claims are not simply directed to *any* form of storing tabular data, but instead are specifically directed to a *self-referential* table for a computer database.” 822 F.3d at 1336–37 (emphasis in original).

Unlike the patent at issue in *Enfish*, we find the current invention is not directed to any specific thing that improves data storage technology, but is a general combination of calculations and determinations that one may or may not perform using a computer. We agree with the Examiner that the “multiple steps of estimating, determining, classifying, and identifying” can be performed by “any type of computer elements.” Ans. 7. We, therefore, conclude Appellants’ invention is directed to a judicial exception, an abstract idea, and turn next to the second step of the *Alice* analysis.

Under the second step of the *Alice* analysis, Appellants argue that even were we to find the invention at issue directed to an abstract idea, the claims nevertheless “recite features that make them amount to significantly more than an abstract idea.”⁴ Appeal Br. 16. In support of this argument,

⁴ Appellants also argue that the claims “act to narrow, confine, and otherwise tie down the claim so as not to cover the general allegedly abstract idea of just calculating and deciding where data is being stored.” App. Br. 17. In so arguing, Appellants cite *Tuxis Techs., LLC v.*

Appellants cite Example 36 of the PTO's December 15, 2016 claim set, and notes the PTO's explanation for the claim's eligibility. *Id.* at 15–16.

The PTO's rationale for finding Example 36 directed to patent eligible subject matter is not applicable to Appellants' alleged invention. Unlike the invention at issue, the PTO explained that for Example 36, "at the time of this invention, using a high resolution camera array with overlapping views to track items of inventory was not [sic] well understood, routine, conventional activity to those in the field of inventory control." USPTO, *Subject Matter Eligibility Examples: Business Methods* 16 (Dec. 2016). Here, we are unpersuaded that the alleged invention does anything more than arrange generic abstract ideas in a routine way, and it employs generic computer components to accomplish the claimed steps. *See* Ans. 9. Merely implementing these abstract steps using a processor or a computer is a routine implementation of calculations by "generic technical components," and renders the invention short an inventive concept. *See Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1351 (Fed. Cir. 2016).

Because we do not find Appellants' invention to include an inventive concept under the second step of *Alice*, we affirm the Examiner's rejection

Amazon.com, Inc. No. 13-cv-1771 RGA, 2014 WL 4382446 (D. Del. Sept. 3, 2014). However, we agree with the Board's previous holding in *Ex Parte Raikula* that "[*Tuxis*] is not controlling law and does not have legal weight commensurate with guidance from the Federal Circuit 'While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.'" 2017-002352, 2018 WL 3586196 at *5 (P.T.A.B. July 10, 2018) (citing *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015)).

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of claims 1–8, 10–19, and 21 as directed to patent-ineligible subject matter under 35 U.S.C. § 101.

In view of the foregoing, Appellants do not apprise us of error in the Examiner’s determination that independent claim 1 is patent ineligible.

DECISION

The Examiner’s decision to reject claims 1–8, 10–19, and 21 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). 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED