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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RONALD A. WITZMAN

Appeal 2017-010679
Application 11/845,677¹
Technology Center 2800

Before MARK NAGUMO, MICHAEL P. COLAIANNI, and
BRIAN D. RANGE, *Administrative Patent Judges*.

RANGE, *Administrative Patent Judge*.

DECISION ON APPEAL

SUMMARY

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1, 5, 7–12, and 14–17. We have jurisdiction. 35 U.S.C. § 6(b).

We AFFIRM.

¹ According to Appellant, the real party in interest is Ronald A. Weitzman. Appeal Br. 1.

STATEMENT OF THE CASE²

Appellant describes the invention as relating to a more efficient method for estimating population proportions (i.e., for the field of poll taking) than prior methods. Spec. ¶¶ 2, 3. Claim 1 is the only independent claim on appeal and is illustrative of the claimed subject matter:

1. A method comprising:

specifying a desired margin of error for a Bayesian point estimate of an actual population proportion of individuals choosing a particular one of a plurality of options;

determining a sample size needed to achieve the desired margin of error by simulating samples of different sizes, each yielding a Bayesian point estimate equal to the desired margin of error plus a number equal to one divided by the number of the plurality of options, the determined sample size being the one yielding the desired margin of error;

obtaining from a population of individuals each choosing one of the plurality of options an independent random sample of the size determined to yield the desired margin of error; and

estimating the actual population proportion of individuals choosing the particular one of the plurality of options from a simple Bayesian regression of the estimated population proportion on the computed proportion of individuals in the sample choosing the particular one of the plurality of options using an unbiased classical, non-Bayesian estimator of a square of the correlation between the population proportions and the sample proportions over the plurality of options as the regression coefficient,

wherein said sample size is less than a sample size required to achieve said desired margin of error determined without said simulating and said estimating.

² In this Decision, we refer to the Final Office Action dated May 26, 2017 (“Final Act.”), the Appeal Brief filed February 23, 2017 (“Appeal Br.”), the Examiner’s Answer dated June 12, 2017 (“Ans.”), and the Reply Brief filed August 14, 2017 (“Reply Br.”).

Appeal Br. 31–32 (Claims App.).

REJECTION

On appeal, the Examiner maintains the rejection of claims 1, 5, 7–12, and 14–17 as directed to judicially excepted subject matter under 35 U.S.C. § 101.

ANALYSIS

We review the appealed rejections for error based upon the issues identified by Appellant and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential), *cited with approval in In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”). After considering the evidence presented in this Appeal and each of Appellant’s arguments, we are not persuaded that Appellant identifies reversible error. Thus, we affirm the Examiner’s rejections for the reasons expressed in the Final Office Action and the Answer. We add the following primarily for emphasis.

Appellant does not separately argue any dependent claims. We therefore limit our discussion to claim 1. Claims 5, 7–12, and 14–17 stand or fall with that claim. 37 C.F.R. § 41.37(c)(1)(iv) (2013).

In determining that claim 1 is unpatentable under 35 U.S.C. § 101, the Examiner determined that the claim is directed to the abstract idea of estimating a population proportion. Final Act. 2. The Examiner further determines that additional elements in the claim amount to no more than mere instructions to implement the idea on a computer and/or generic computer structure. *Id.* The Examiner thus determines that the additional

claim elements “do not provide meaningful limitation(s) to transform the abstract idea into a patent eligible application of the abstract idea such that the claim(s) amount to significantly more than the abstract idea itself.” *Id.* Appellant disagrees with the Examiner and argues that, for a variety of reasons, claim 1 is not directed to an abstract idea. Appeal Br. *passim*.

To assess whether claim 1 is directed to an abstract idea, we apply the two step *Alice* framework. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014). The first step of that framework is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* (citation omitted). If so, the second step is to consider the elements of the claims “individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* Our reviewing court has explained that, with regards to determining whether a claim is directed to an abstract idea, “the 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 Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016).

The U.S. Supreme 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 Collaborative Services v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012). We therefore look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the

abstract idea while merely invoking generic processes and machinery. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

Here, the Examiner correctly applied step one of the *Alice* framework in determining that claim 1 is directed to an abstract idea. Final Act. 2. In particular, we agree with the Examiner that claim 1 is analogous to the unpatentable claim addressed by the U.S. Supreme Court in *Parker v. Flook*, 437 U.S. 584 (1978). *Id.* at 3–5. In *Flook*, the Court addressed a method consisting of three steps (1) measuring the present value of a process variable (*e.g.*, temperature), (2) calculating an updated alarm-limit value, and (3) adjusting the actual alarm limit to the updated value. *Flook*, 437 U.S. at 585. The Court explained that the difference between the patent application and conventional methods “rests in the second step—the mathematical algorithm or formula.” *Id.* at 586. The Court held that the claimed invention was not patent eligible because it “simply provides a new and presumably better method for calculating alarm limit values” and because “if a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.” *Id.* at 594–95 (internal quotes and citation omitted).

Here, claim 1 is likewise directed “essentially to a method of calculating, using a mathematical formula.” The method of calculating includes, for example, specifying margin of error, simulating samples of different sizes yielding Bayesian point estimates, estimating actual population proportion as recited in claim 1. This entire method involves only calculations, *i.e.*, math—an abstract idea. The only recitation of claim 1 that is not math is “obtaining from a population of individuals each

choosing one of the plurality of options . . .”, but this step is mere data gathering akin to *Flook* measuring temperature. Despite such data gathering, the claim is still directed to an abstract idea.

Appellant argues that claim 1 is not directed to a long-prevalent and fundamental practice and instead provides a new and useful result that is novel over the art. Appeal Br. 8–9, 13, 26–27; *see also* Reply Br. 8–9, 14–15, 21–23, 34–36. Appellant also argues that the claims are directed to the concrete field of polling and, in particular, “improvements to estimating characteristics of a population based on sampling. *Id.* at 10–11. These arguments do not distinguish from the patent ineligible claims of *Parker v. Flook*, however, because the *Flook* Court acknowledged that the calculations at issue there were “new and presumably improved” and resulted in useful alarm limit updates.

Appellant’s comparison of the present claims to those of *Diamond v. Diehr*, 450 U.S. 175, 187 (1981) is also unpersuasive. Appeal Br. 9, 16; Reply Br. 10. In *Diehr*, the steps of the claimed process included “installing rubber in a press, closing the mold, constantly determining the temperature of the mold, . . . and automatically opening the press at the proper time.” *Diehr*, 450 U.S. at 187. The Court held that those claims were patent eligible because they were directed to a process for curing rubber despite that process using, in part, a mathematical equation. *Id.* at 189. In contrast, claim 1 here does not require any physical process such as curing rubber.

Appellant also argues that claim 1 is akin to decisions such as *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir 2016) and *Enfish* because the claim allegedly improves the relevant technology. Appeal Br. 14–25; Reply Br. 12–13, 16–20, 27–33. This argument is

unpersuasive because claim 1 does not recite a computer and does not require use of a computer. The Specification confirms that a computer is not necessary for the disclosed invention by stating that the invention is “[m]ost easily carried out on a computer.” Spec. ¶ 5. Notably, the preceding quotation is the Specification’s only mention of a computer. Appellant argues that the claimed method will reduce computer memory usage (*see, e.g.,* Appeal Br. 22), but again, claim 1 does not need a computer to be practiced. Moreover, the Specification does not mention memory.

Appellant argues that claim 1 requires a computer because “simulating samples of different sizes . . .” is infeasible by hand and because a person of skill in the art would not consider performing the simulating by hand. Appeal Br. 20–21; Reply Br. 24–26. Appellants present no evidence to support this argument. Instead, the evidence of record comes from the Specification which suggests that the calculations could be performed without a computer. Spec. ¶ 5. While the math described in the Specification at paragraphs 22 *et seq.* of the Specification may be tedious and/or difficult to perform without error, this does not make the math non-abstract. Indeed, even if claim 1 required use of a computer, this would not make claim 1 non-abstract where the computer is, as it would be here, merely used for generic computer functions such as storing information and performing calculations. *See Alice*, 134 S. Ct. 2359–60 (holding that even where parties stipulated that claims required use of a computer, use of a computer for performing generic computer functions is not sufficient to transform an abstract idea into patentable subject matter).

Turning to the second step of the *Alice* framework, we agree with the Examiner that claim 1 does not recite any elements that are “significantly

more” than the abstract idea itself. Final Act. 2. In addressing this issue, we recognize that “[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018).

Claim 1 requires “obtaining from a population of individuals each choosing one of the plurality of options an independent random sample of the size determined to yield the desired margin of error.” Spec. 31 (Claims App.). In other words, the claim requires polling individuals to collect data. *See* Reply Br. 39 (“the recited ‘independent random sample’ is tied to real choices from a ‘population of individuals.’”). The Specification confirms that such activity is conventional. Spec. ¶¶ 3–4. Conventional forms of data gathering do not make an otherwise abstract claim non-abstract. *See, e.g., Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016). Limiting the claim to the field of polling (Appeal Br. 11–12; Reply Br. 10–11) also does not make it abstract. *Elec. Power Grp., LLC*, 830 F.3d at 1354 (“limiting the claims to the particular technological environment of power-grid monitoring is, without more, insufficient to transform them into patent-eligible applications of the abstract idea at their core”). Also, as explained above, claim 1 does not require a computer, and even if it did, use of a generic computer is not “significantly more” under step two of *Alice*. *See Alice*, 134 S. Ct. 2359–60.

Because Appellant’s arguments do not identify reversible error in the Examiner’s determination that the claims on appeal are directed to an abstract idea and does not claim “significantly more,” we sustain the rejection.

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DECISION

For the above reasons, we affirm the Examiner's rejections of claims 1, 5, 7–12, and 14–17.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED