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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SCOTT C. FORBES, JERALD J. GNUSCHKE,
TIM M. MOORE, and DAWSON YEE

Appeal 2018-007459
Application 11/771,483
Technology Center 3600

Before STACY G. WHITE, SCOTT B. HOWARD, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

HOWARD, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Final Rejection of claims 1–13, 15, and 25–29, which constitute all of the claims pending in this application. Claims 14 and 16–24 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Microsoft Technology Licensing, LLC. Br. 3.

THE INVENTION

The disclosed and claimed invention is directed to “[t]echniques for providing third party incentivized communications sessions.” Abstract. More specifically, the invention is directed to sampling an audio conversation “for audio information such as a word, phrase, utterance, or phoneme that may be associated with an advertisement in a database.” *Id.*

Claim 1, reproduced below with relevant limitations emphasized, is illustrative of the claimed subject matter:

1. A computer-implemented method for processing audio data, the computer-implemented method comprising:
 - receiving, by a recognition module in a server, an audio conversation from a client device;
 - converting, by the recognition module, the audio conversation into text that is representative of the audio conversation;
 - sampling, by the recognition module, the text for a word;
 - buffering, by the recognition module, at least a portion of the text during the sampling;
 - searching, by a content module in the server, in a database for a piece of content that is associated with the word, *the searching including a backward sampling, wherein the backward sampling comprises:*
 - identifying the word in the portion of the text, the word occurring at a first frequency that is less than a second frequency associated with a plurality of other words in conversations; and*
 - at least partly in response to identifying the word, looking for a relevant word in a segment of the portion of the text, wherein the segment of the portion precedes the word, and wherein detection of the relevant word in combination with the word triggers provisioning of the piece of content; and*
 - sending, by the content module, the provisioned piece of content to the client device.

REJECTION

Claims 1–13, 15, and 25–29² stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

ANALYSIS

We have reviewed the Examiner’s rejection in light of Appellant’s arguments that the Examiner erred. In reaching this decision, we have considered all evidence presented and all arguments made by Appellant. We are persuaded by Appellant’s arguments that, based on the current record, the Examiner erred in rejecting the claims.

An invention is patent eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[I]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“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.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4

² The Final Action identifies claims 1, 2, 4, 6–11, and 13–25 as rejected. *See* Final Act. 2. This appears to be a typographical error.

in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula

to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The PTO recently published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Revised Guidance”). Under that guidance, we first look to whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) [(Step 2A, Prong 1)]; and

(2) additional elements that integrate the judicial exception into a practical application (see MPEP § 2106.05(a)–(c), (e)–(h)) [(Step 2A, Prong 2)].

See 2019 Revised Guidance, 84 Fed. Reg. at 52, 54–55. If a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See id. at 56. This is sometimes referred to as Step 2B.

2019 Revised Guidance, Step 2B

We have reviewed Appellant’s claims and, in light of current precedent and the 2019 Revised Guidance, we determine Appellant has raised a dispositive issue with respect to the Examiner’s determinations under Step 2B. Accordingly, we need not present a detailed analysis under Step 2A and, instead, need only address whether the Examiner has provided a proper rejection under Step 2B.

The 2019 Revised Guidance states that if an analysis is needed for Step 2B, the “administrative patent judge will proceed in accordance with existing USPTO guidance as modified in April 2018.”³ *Id.* at 51 (footnote renumbered); *see also id.* at 56.

The *Berkheimer* Memorandum provides specific requirements to support any determination that claim elements (or a combination of elements) are well-understood, routine, or conventional. Pursuant to the *Berkheimer* Memorandum, “an additional element (or combination of

³ USPTO Memorandum of April 19, 2018, “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)” (Apr. 19, 2018), available at <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF> [hereinafter “USPTO *Berkheimer* Memorandum”].

elements) is not well-understood, routine or conventional unless the examiner finds, and expressly supports a rejection in writing with, one or more of the following:”

1. A citation to an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s)
2. A citation to one or more of the court decisions discussed in MPEP § 2106.05(d)(II) as noting the well-understood, routine, conventional nature of the additional element(s).
3. A citation to a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s)
4. A statement that the examiner is taking official notice of the well-understood, routine, conventional nature of the additional element(s)

Berkheimer Memorandum 3–4.

Appellant argues that each of the independent claims recites an additional limitation beyond the abstract idea which “adds a specific limitation other than what is well-understood routine, conventional activity in the field or unconventional steps that confine the claim to a particular useful application.” Br. 25 (citation omitted). Specifically, Appellant argues each of the independent claims recites limitations which require identifying a word and then identifying an additional word in the segment of text that precedes the word. Br. 25–28 (citing Spec. ¶ 48). The Specification describes this as “backward sampling.” *See* Spec. ¶ 48.

The Examiner determines “that the Supreme Court and Federal Circuit Court have recognized that receiving, processing and storing data, matching information (e.g. comparison of data), and receiving or transmitting data over a network, e.g. using the Internet to gather data are

computer functions that are well understood, routine, and conventional functions” Final Act. 3–4; *see also* Ans. 4–5. More specifically, the Examiner determines that the backward sampling recited in the claims “is what humans routinely do in the mind to determine the context of words.” Ans. 5–6.

The Examiner’s rejection and Answer⁴ have not provided a sufficiently persuasive citation as required by the *Berkheimer* Memorandum to support the Examiner’s determination that the additional elements are well-understood, routine, and conventional. First, the Examiner determines that the backward sampling recited in the claims “is what humans routinely do in the mind to determine the context of words.” Ans. 5–6. However, the Examiner does not cite an express statement in the specification, a court decision, or a publication supporting its determination. Such an unsupported determination is not sufficient under the *Berkheimer* Memorandum or the 2019 Revised Guidance.

Second, although not focused on backwards sampling, the Examiner cites two cases—*Electric Power Group, LLC v. Alstom, S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) and *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363 (Fed. Cir. 2015)—for the proposition that “using the Internet to gather data are computer functions that are well understood, routine, and conventional when they are claimed in a merely generic manner.” Ans. 5. However, those cases are not sufficiently persuasive to demonstrate that the specific type of data analysis recited in the claims—backwards sampling—is well understood, routine, or conventional.

⁴ We note that the Answer was mailed on May 14, 2018, nearly a month after the issuance of the *Berkheimer* Memorandum.

In *Electric Power*, “a large portion of the lengthy claims is devoted to enumerating types of information and information sources available within the power-grid environment.” 830 F.3d at 1355. The Federal Circuit held because the claims “do not even require a new source or type of information, or *new techniques for analyzing it*,” the claims “do not require an arguably inventive set of components or methods.” *Id.* Because the claims used conventional data analysis and conventional components, the Federal Circuit held that the claims were not directed to patentable subject matter. *Id.* at 1354. Similarly, in *Intellectual Ventures* the Federal Circuit determined the claims did not contain an inventive concept because the claims used generic computer components to perform generic computer tasks. 792 F.3d at 1368.

We are not persuaded that *Electric Power Group* and *Intellectual Ventures* are sufficiently analogous to the instant claims. Unlike the claims in those cases, the pending claims do not recite to generic data analysis described at a high level of generality. Instead, the claims recite a specific type of data analysis, backward sampling, which, according to the Specification, can be used to determine the context of a word. Neither of the cases cited by the Examiner involve that such specific types of data analysis.

Therefore, the Examiner has not provided sufficient persuasive evidence that Appellant’s claims recite additional elements that are well-understood, routine, and conventional with respect to Step 2B of the *Alice/Mayo* framework in the 2019 Revised Guidance. Accordingly, we are constrained by the record to reverse the Examiner’s rejection of claims 1–13, 15, and 25–28.

CONCLUSION

In summary:

Claims Rejected	Basis	Affirmed	Reversed
1–13, 15, and 25–28	§ 101		1–13, 15, and 25–28

DECISION

For the above reasons, we reverse the Examiner’s decisions rejecting claims 1–13, 15, and 25–28.

REVERSED