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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANDREA WAIDMANN, IRINA THOSS, FREDDIE GEIER,
ANDREAS GEIER, MICHAEL HERMANN, and THOMAS HARTMANN

Appeal 2017-010037
Application 13/292,964
Technology Center 3600

Before ERIC B. CHEN, JAMES B. ARPIN, and
KARA L. SZPONDOWSKI, *Administrative Patent Judges*.

CHEN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the final rejection of claims 34–52. Claims 1–33 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

STATEMENT OF THE CASE

Appellant's¹ invention relates to digital reading, in particular, the consumer's need for selecting, collecting, storing, and managing digital content. (Spec., Abstract.)

Claim 34 is exemplary:

34. A method for providing content of interest to a user, comprising the steps:

providing for a display, by a touch sensitive display, of content provided by a content database;

receiving, by a processor, selected content of interest from the displayed content, wherein said selected content of interest is selected by a user using the touch sensitive display as a user interface;

extracting text out of the content of interest and creating, by the processor, a semantic index of the extracted text of the selected content of interest, taking into account synonyms and word collocations, wherein creating the semantic index of the extracted text comprises calculating, by the processor, a first vector representing the semantic index in a multidimensional vector space, wherein the dimension of the vector space is equal to a number of words to be considered out of the text extracted from the content of interest, and adding further information related to the selected content of interest;

calculating, by the processor, a number of further vectors each representing a further semantic index in a document contained in a content database, wherein the further vectors are associated with further semantic indices, wherein each further vector is a vector in a multidimensional vector space, wherein an element of each further vector is zero if a word corresponding to said element does not occur in the document, and an element of said vector contains a non-zero value

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 Andrea Waidmann, et al. (App. Br. 2.)

corresponding to counted occurrence of the word in the document; and

providing further content of interest from the content provided by the content database based on a semantic index of the further content of interest by comparing the further semantic indices of the further content of interest to the semantic index of the selected content of interest by comparing the first vector calculated for the content of interest to each of the further vectors calculated for each of the documents in the content database, and also by using the further information related to the selected content of interest.

Claims 34–52 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

ANALYSIS

We are persuaded by Appellant’s arguments (App. Br. 8) that the Examiner has not satisfied the initial burden of demonstrating that independent claim 34 is directed to patent-ineligible subject matter under 35 U.S.C. § 101.

The Examiner determined that: (i) “the claims [are directed] to the concept of determining and providing additional content of interest which is an idea of itself as it can be performed by a human using a pen and paper,” as in *Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011); and (ii)

the claims are directed to a formula for locating content of interest which is also an abstract idea and is similar to the abstract idea of determining the optimal number of visits by a business represented to a client as recited in *In re Maucorps* [609 F.2d 481 (CCPA 1979)] as both deal with a determination of specific content of interest.

(Final Act. 3 (emphases omitted); *see also* Ans. 2.) We agree that the Examiner has not satisfied the proper burden for a prima facie case.

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 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 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, 67 (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 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 187; *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 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.* at 191 (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 (citation 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 Office recently published revised guidance on the application of § 101. *2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE*, 84 Fed. Reg. 50 (Jan. 7, 2019). 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); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. 2019)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that are 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 84 Fed. Reg. at 56.

Although the Examiner generally states that independent claim 34 is “an idea of itself as it can be performed by a human using a pen and paper” and “similar to the abstract idea of determining the optimal number of visits by a business represented to a client,” with citations to *Cybersource* and *Maucorps*, respectively (*see* Final Act. 3), these statements neither: (a) identify the specific limitations in the claims under examination that the Examiner believes recites an abstract idea; nor (b) demonstrate the identified limitations fall within the subject matter groupings of abstract ideas of

mathematical concepts, certain methods of organizing human activity, or mental processes. *See* 84 Fed. Reg. at 56. In particular, the Examiner neither accounts for all the limitations recited in claim 34, nor adequately articulates why the claimed concepts are analogous to the facts of *Cybersource* and *Maucorps*. For example, the Examiner has not adequately addressed the limitations

a first vector representing the semantic index in a multidimensional vector space, wherein the dimension of the vector space is equal to a number of words to be considered out of the text extracted from the content of interest, and adding further information related to the selected content of interest
and

wherein the further vectors are associated with further semantic indices, wherein each further vector is a vector in a multidimensional vector space, wherein an element of each further vector is zero if a word corresponding to said element does not occur in the document, and an element of said vector contains a non-zero value corresponding to counted occurrence of the word in the document.

Accordingly, we are persuaded by Appellant's arguments that:

Appellants submit that the Examiner has failed to establish a *prima facie* case of unpatentability under 35 U.S.C. 101 for another reason. Specifically, with respect to any of the alleged abstract ideas, the Examiner does not explain *why* the abstract ideas correspond to a concept that the courts have identified as an abstract idea.

(App. Br. 8.)

Thus, we do not sustain the rejection of independent claim 34 under 35 U.S.C. § 101. Claims 35–47 depend from independent claim 34. We do not sustain the rejection of claims 35–47 under 35 U.S.C. § 101 for the same reasons discussed with respect to independent claim 34.

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Independent claim 48 recites limitations similar to those discussed with respect to independent claim 34. (App. Br. 32.) We do not sustain the rejection of claim 48, as well as dependent claims 49–52, for the same reasons discussed with respect to claim 34.

DECISION

The Examiner’s decision rejecting claims 34–52 under 35 U.S.C. § 101 is reversed.

REVERSED