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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CORVILLE O. ALLEN,
ANDREW R. FREED, and KYUNGAE LIM

Appeal 2018-002782
Application 14/588,928
Technology Center 2100

Before DEBRA K. STEPHENS, JASON V. MORGAN, and
MICHAEL M. BARRY, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from a final rejection of claims 8–20, which are all the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ The Appeal Brief identifies the Applicant, International Business Machines Corporation, as the real party in interest. App. Br. 2.

Introduction

As background, Appellant explains that a “question answer system” differs from traditional document search technologies and, as the system “ingests a corpus of documents” that it processes for use with its “natural language processing, information retrieval, knowledge representation, automated reasoning, and machine learning technologies,” the “system uses annotators to add annotations to the document that the question answer system eventually utilizes to identify and return precise answers to questions.” Spec. ¶ 1–2.

Appellant’s disclosure and claims relate to software that improves the process of resolving annotation errors that stem from the annotator technology. *See* Spec. ¶ 3, Abstract. Representative claim 8 is reproduced below.

8. An information handling system comprising:
 - one or more processors;
 - a memory coupled to at least one of the processors; and
 - a set of computer program instructions stored in the memory and executed by at least one of the processors in order to perform actions of:
 - detecting a first annotation error generated by an annotator while annotating a first document segment;
 - in response to detecting the first annotation error, segmenting the first document segment into a plurality of second document segments;
 - detecting one or more second annotation errors generated by the annotator while annotating at least one of the plurality of second document segments, resulting in one or more unannotated second document segments; and

in response to detecting the one or more second annotation errors, generating a notification that identifies at least one of the one or more unannotated second document segments.

App. Br. 12–13 (Claims App’x).

Rejections and References

Claims 8–20 stand rejected under 35 U.S.C. § 101 as directed to an abstract idea, without reciting significantly more. Ans. 3–13.²

Claims 8–11 and 15–18 stand rejected under 35 U.S.C. § 103 as unpatentable over Jones (US 2004/0172594 A1; Sept. 2, 2004) and Gardner (US 9,058,317 B1; June 16, 2015). Final Act. 3–9.

Claims 12 and 19 stand rejected under § 103 as unpatentable over Jones, Gardner, and Glass (US 2004/0261016 A1; Dec. 23, 2004). Final Act. 10–11.

Claims 13 and 20 stand rejected under § 103 as unpatentable over Jones, Gardner, Glass, and Ziauddin (US 2005/0177557 A1; Aug. 11, 2005). Final Act. 11–13.

Claim 14 stands rejected under § 103 as unpatentable over Jones, Gardner, Glass, Ziauddin, and Chen (US 2014/0321291 A1; Oct. 30, 2014). Final Act. 13–15.

Claims 8–20 stand provisionally rejected on the ground of nonstatutory obviousness-type double-patenting over claims of co-pending application 14/868,816. Final Act. 16–35.

² This is a new ground of rejection made by the Examiner in the Answer.

ANALYSIS

The 35 U.S.C. § 101 Rejection

Section 101 defines patentable subject matter, but the Supreme Court has “long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quotation omitted). “Eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts.” *SAP Am., Inc. v. InvestPic, LLC*, 890 F.3d 1016, 1020 (Fed. Cir. 2018). To determine patentable subject matter, the Supreme Court has set forth a two-part test.

“First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts” of “laws of nature, natural phenomena, and abstract ideas.” *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014). “The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017). A court must be cognizant that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas” (*Mayo*, 566 U.S. at 71), and “describing the claims at . . . a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Instead, “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

If the claim is not directed to a patent-ineligible concept, the inquiry ends; otherwise, in the second step, we “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 79, 78). The Supreme Court has “described step two of this analysis as a search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.” *Alice*, 134 S. Ct. at 2355 (quotation omitted).

Here, in the first step, the Examiner determines the claims are “are directed to the abstract idea of breaking a task into smaller parts in order to identify an issue/error, and notifying the source of the error.” Ans. 3. The Examiner also characterizes claim 8 as reciting steps that “describe the concept of collecting and analyzing information to detect an issue,” and further that the steps are “similar to real-world error detection tasks, for instance, such as breaking a problem down into smaller problems to identify the source of error.” *Id.* at 4. The Examiner reasons that the focus “is on identifying annotation errors in a document, but the claims contain no description of how these errors are detected.” *Id.* at 5. The Examiner concludes the concepts to which the claim is directed

are not meaningfully different than those concepts identified as abstract ideas by the courts, such as in *FairWarning v Iatric*³ (which found “collecting and analyzing information to detect misuse and notifying a user when misuse is detected” to be an abstract idea, even when limited to specific content), and

³ *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089 (2016).

Electric Power Group^[4] (which found “collecting information, analyzing it, and displaying certain results of the collection and analysis” to be an abstract idea, even when limited to specific content).

Id.

Appellant replies that the Examiner errs in the first step of the § 101 analysis because “claim 8 improves the technological field of document annotation by pinpointing sections of a document that are causing an annotation error.” Reply Br. 7. Appellant contends claim 8, with its recited annotator-related steps, “greatly improves the technological field of question answer system document annotation by reducing the amount of time required to debug an annotator by pinpointing locations within a document that are causing the annotator issues.” *Id.* at 8.

We are persuaded by Appellant’s contention. “The Supreme Court has recognized that all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas. But not all claims are *directed to* an abstract idea.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016) (quotation omitted). Here, we agree with Appellant that the combined limitations of claim 8 are directed to an improvement to document annotator technology rather than simply to a group of abstract concepts. *See* Reply Br. 7–10. Claim 8’s abstract aspects of “breaking a task into smaller parts,” “notifying the source of the error,” and “collecting and analyzing information to detect an issue” (Ans. 3) are subsidiary to the technological aspect of claim 8, which essentially is directed to software-implemented document annotators. In other words, claim 8 is directed to

⁴ *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (2016).

technical aspects of software annotator technology and does not simply recite abstract ideas.

Although claim 8 certainly has aspects that are “similar to real-world error detection tasks” (Ans. 4), this does not compel a conclusion that the claim is directed to a patent-ineligible abstract idea. There is no finding that claim 8 simply automates a task that humans may otherwise perform with pen and paper. Claim 8 is unlike the claims at issue in *FairWarning v. Iatric* and *Electric Power Group*, where in both cases the claims were found ineligibly directed to the abstract ideas of collecting, analyzing, and presenting data within limited fields of use. *See* 839 F.3d at 1092–94 and 830 F.3d at 1351–54. Instead, claim 8 is more similar to those at issue in *DDR Holdings LLC v. Hotels.com L.P.*, where claims for automating creation of a composite web page were held patent-eligible under § 101 because they recited a specific way to solve a specific problem related to a specific technology (i.e., the Internet). *See* 773 F.3d 1245, 1258–59 (Fed. Cir. 2015). Here, claim 8 recites a specific way to solve a specific problem with automated document annotator technology. This is more than merely a field of use for an abstract idea. On the record before us, we are not persuaded claim 8 is directed an ineligible abstract idea.

Accordingly, we do not sustain the Examiner’s § 101 rejection of claim 8 and, for the same reasons, claims 9–20.

The 35 U.S.C. § 103 Rejections

In rejecting claim 8 under 35 U.S.C. § 103, the Examiner finds Gardner teaches all the recited steps performed by the computer program instructions. *See* Final Act. 4–5. Appellant argues the Examiner errs because the method recited within claim 8 “iteratively segments the

document into smaller and smaller segments” whereas “Gardner never iteratively drills down into a document to locate a smaller section of text causing annotation issues as claimed by Appellant.” App. Br. 5; *see also id.* at 6–7. Thus, Appellant contends:

*Gardner never teaches or suggests “in response to detecting the first annotation error, **segmenting the first document segment into a plurality of second document segments; and detecting one or more second annotation errors generated by the annotator while **annotating at least one of the plurality of second document segments**, resulting in one or more unannotated second document segments” as claimed.***

Id. at 7.

The Examiner responds by finding Gardner’s method of identifying inaccurate annotations is “the same concept” as the steps recited in claim 8. Ans. 50 (citing Gardner 1:26–67, 2:1–35, 425–60, 5:30–60, 6:1–35). Appellant replies that “Gardner never partitions a first segment of text into smaller portions of text in response to identifying an annotation error in the first segment of text. Instead, Gardner’s data analysts must review the entire first segment of text to resolve the annotation issue and then retrain the model.” Reply Br. 3.

We agree with Appellant. Gardner teaches a machine learning management system that iteratively improves its natural language processing model by identifying an error in a segment of text, correcting its model based on the error, and then “monitoring progress of annotations made to a second segment of text data associated with the first segment of text data.” Gardner 39–40; *see also id.* at 1:27–49. Gardner’s “second segments” that are “associated with the first segment,” however, are unrelated to the recited second segments of claim 8. Rather, Gardner teaches iteratively updating its

model based on errors found in a first segment of text and then monitoring the effect of the update on second segments of text that, while associated with the first segment, are not part of the first segment. In other words, Gardner’s “second segments” are *not* recursively sub-segmented from the first segment, as recited. *See, e.g., id.* at 4:26–57. Thus, we agree with Appellant, the Examiner errs in finding Gardner “teaches or suggests ‘*in response to detecting the first annotation error, segmenting the first document segment into a plurality of second document segments; and detecting one or more second annotation errors generated by the annotator while annotating at least one of the plurality of second document segments, resulting in one or more unannotated second document segments,*’ as claimed.” Reply Br. 3.

There is no finding that Jones cures the deficiency of Gardner and, therefore, we do not sustain the Examiner’s § 103 rejection of claim 8. For the same reasons we also do not sustain the § 103 rejection of independent claim 15, which includes limitations commensurate with claim 8 and stands rejected on the same grounds. We also, accordingly do not sustain the § 103 rejection of dependent claims 9–14 and 16–20.

Provisional Non-Statutory Obviousness-type Double-Patenting Rejection

In the situation here, where we reverse all of the Examiner’s rejections under 35 U.S.C. §§ 101 and 103, we exercise our discretion to decline to rule on the provisional obviousness-type double-patenting rejection. *See Ex parte Moncla*, 95 USPQ2d 1884 (BPAI 2010) (precedential).

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DECISION

For the above reasons, we reverse the rejections of claims 8–20 under 35 U.S.C. §§ 101 and 103.

REVERSED