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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte REMA ANANTHANARAYANAN and BIPLAV SRIVASTAVA

Appeal 2017-005166
Application 12/944,970
Technology Center 2600

Before JOHN A. JEFFERY, JASON J. CHUNG, and
JASON M. REPKO, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants¹ appeal under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1, 3, 5, 7–11, 13, 15, and 17–22.² Claims 2, 4, 6, 12, 14, and 16 were cancelled. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

¹ The real party in interest is International Business Machines Corporation. App. Br. 3.

² Appellants canceled claims 6 and 16 in the Response to Office Action filed Jan. 27, 2016, Pages 4, 8. *See also* App. Br. Claims App'x 35, 39. Both the Final Rejection mailed April 20, 2016 and the Appeal Brief erroneously list claims 6 and 16 as appealed.

STATEMENT OF THE CASE

Appellants' invention is a method for assessing document quality. Attributes of a document are identified and a quality score is determined based on the document attributes and predetermined quality criteria.

See Abstract; Spec. ¶ 3; Claim 1. Claim 1 is illustrative:

1. A method comprising:
 - utilizing at least one processor to execute computer code configured to perform the steps of:
 - accepting at least one document;
 - receiving, from a user, predetermined quality criteria, wherein the predetermined quality criteria:
 - are divided into positive criteria and negative criteria; and
 - are divided into domain-specific criteria and domain-independent criteria;
 - creating, using a processor, a quality specification comprising the predetermined quality criteria and a weight assigned to each of the positive and negative criteria;
 - identifying, using a processor, characteristics of the at least one document, wherein said identifying comprises using at least one annotator that automatically identifies said characteristics;
 - automatically assessing, using a processor, the at least one document against the quality specification, wherein said assessing comprises analyzing the identified characteristics of the at least one document against the predetermined quality criteria; and
 - determining, using a processor, a quality score, based on the predetermined quality criteria and the identified characteristics, for the at least one document, the quality score comprising:
 - an additive function of positive attributes, identified in the at least one document, multiplied by the weight associated with the positive attribute, wherein the positive attributes are based on the positive criteria; and

a subtractive function of negative attributes, identified in the at least one document, multiplied by the weight associated with the negative attribute, wherein the negative attributes are based on the negative criteria.

RELATED APPEALS

Appellants did not identify any related appeals. *See* App. Br. 4.

THE REJECTIONS^{3,4}

Claims 1, 3, 5, 7–11, 13, 15, and 17–22 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Final Act. 5.

THE § 101 REJECTION

The Examiner concludes the claims are directed to the abstract idea of an editorial review of a document and more specifically directed to the identification of document attributes and assessment of that document based upon a predetermined set of criteria provided by a human user. Final Act. 5.

According to the Examiner, the claimed concept of editorial review of a document is a method of organizing human activity or an abstract idea of itself and, therefore, the claims are drawn to an abstract idea. Final Act. 5–6; The Examiner compares the idea to which the claims are directed with

³ Throughout this opinion, we refer to (1) the Final Rejection mailed April 20, 2016 (“Final Act.”); (2) the Appeal Brief filed September 20, 2016 (“App. Br.”); (3) the Examiner’s Answer mailed December 14, 2016 (“Ans.”); and (4) the Reply Brief filed February 14, 2017 (“Reply Br.”).

⁴ The Examiner withdrew the rejection of claims 1, 3, 5–11, 13, 15 and 17–22 under 35 U.S.C. § 103(a). Ans. 2.

abstract ideas courts have identified in concluding that the claim is directed to an abstract idea in the category of “an idea of itself.” Final Act. 6; Ans. 4.

The Examiner adds that the claims, considered as a whole, do not include meaningful limitations that amount to significantly more than the abstract idea (e.g., an inventive concept) because the claims include no limitations that relate to a particularly novel implementation of a computer, processor or other structural element that would deviate from the generic device. Final Act. 6; Ans. 7. According to the Examiner, “**claim 1** and its dependent claims require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.” Final Act. 5.

Appellants argue that (1) the Examiner did not make a prima facie case, (2) the claims are not directed to an abstract idea, and (3) the claims qualify as significantly more than the abstract idea itself. App. Br. 17–26; Reply Br. 16–30.

Specifically, Appellants contend that the Examiner has not presented a prima facie case of ineligibility because, among other things, the Examiner did not (1) support assertions, (2) point out factors relied upon, (3) identify an abstract idea defined by the courts corresponding to the claimed abstract idea, (3) consider all claim limitations, and (4) consider the claim limitations a whole. App. Br. 18–19; Reply Br. 16–19.

Appellants further contend the claims are not directed to an abstract idea because “the claims are [not] directed to a concept which the courts have found to be abstract ideas.” App. Br. 21–22; Reply Br. 21. According to Appellants, the claims recite patent-eligible subject matter that is “‘rooted in computer technology’” because the claimed standardizing document

assessment is for a specific computer problem, namely how to remove the subjectiveness of human assessment. Reply Br. 22.

Appellants add that the claims recite significantly more than an abstract idea because they are said to describe specific technical improvements to document assessment allocation in “novel, non-obvious ways.” Reply Br. 27; *see* App. Br. 25.

ISSUES

I. Has the Examiner met the basic requirements for establishing a prima facie case of subject matter ineligibility under § 101?

II. Has the Examiner erred in rejecting claim 1 by concluding that the method of accessing document quality is directed to ineligible subject matter under § 101? This issue turns on whether the claimed invention is directed to a patent-ineligible abstract idea and, if so, whether elements of the claim—both individually and as an ordered combination—transform the nature of the claim into a patent-eligible application of that abstract idea.

ANALYSIS

Introduction

The Patent Act defines patent-eligible subject matter broadly: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 70 (2012), and *Alice Corp. Proprietary Ltd. v. CLS Bank International*, 134 S. Ct. 2347, 2354

(2014), the Supreme Court explained that § 101 “contains an important implicit exception” for laws of nature, natural phenomena, and abstract ideas. *See Diamond v. Diehr*, 450 U.S. 175, 185 (1981). *In Mayo and Alice*, the Court set forth a two-step analytical framework for evaluating patent-eligible subject matter: First, we determine whether the claims are directed to a patent-ineligible concept; laws of nature, natural phenomena, and abstract ideas. *Id.* at 2354–55. If so, we then proceed to the second step and examine the claim’s elements—both individually and as an ordered combination—to determine whether the claim contains an “inventive concept” sufficient to transform the claimed abstract idea into a patent-eligible application. *Id.* at 2357.

Step one in the *Mayo/Alice* framework involves looking at the “focus” of the claims at issue and their “character as a whole.” *Elec. Power Grp., LLC v. Alstrom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Step two involves the search for an “inventive concept.” *Alice*, 134 S. Ct. at 2355; *Elec. Power Grp.*, 830 F.3d at 1353. For an “inventive concept,” “more is required than ‘well-understood, routine, conventional activity already engaged in’” by the relevant community. *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 (Fed. Cir. 2016) (quoting *Mayo*, 566 U.S. at 79–80).

Prima Facie Case

Appellants argue independent claims 1, 10, and 11 together and do not argue the dependent claims separately. *See App. Br.* 17, 17–26; *Reply Br.* 16–30. We, therefore, select independent claim 1 as the representative claim

for this group, and claims 3, 5, 7–11, 13, 15, and 17–22 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The Federal Circuit has explained that “the prima facie case is merely a procedural device that enables an appropriate shift of the burden of production.” *Hyatt v. Dudas*, 492 F.3d 1365, 1369 (Fed. Cir. 2007) (citing *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992)). The “PTO carries its procedural burden of establishing a prima facie case when its rejection satisfies 35 U.S.C. § 132, in ‘notify[ing] the applicant . . . [by] stating the reasons for [its] rejection, or objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application.’” *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (quoting 35 U.S.C. § 132) (alterations in original). The PTO violates § 132 “when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.” *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990). But if the PTO “adequately explain[s] the shortcomings it perceives . . . the burden shifts to the applicant to rebut the prima facie case with evidence and/or argument.” *Hyatt*, 492 F.3d at 1370.

We find the Examiner established a prima facie case of ineligibility by explaining the § 101 rejection adequately to allow Appellants to counter the rejection. Under the first step of the *Mayo/Alice* analysis, the Examiner analyzed the limitations of claim 1 to find that claim 1 calls for (1) accepting at least one document, (2) receiving quality criteria from a user, (3) creating a quality specification, (4) identifying document characteristics, (5) assessing the document against the quality specification, and (6) determining a quality score. Ans. 4. The Examiner concluded the claims are directed to

the idea of an editorial review of a document and, more specifically, are directed to identifying document attributes and assessing that document based upon a predetermined set of criteria provided by a human user. Final Act. 5–6; Ans. 4–5.

The Examiner also finds the claimed concept of editorial review of a document is a method of organizing human activity or an abstract idea of itself, and thus the claims are drawn to an abstract idea. Final Act. 5–6. In finding claim 1 is directed to an abstract idea of itself, the Examiner compares the idea claim 1 is directed to with similar ideas courts have identified as abstract. Final Act. 6; Ans. 4. Specifically, the Examiner states:

[T]he process therein would still be considered an abstract idea of itself, as **claim 1** is directed to a process for comparing new and stored information and using rules to identify options (making an assessment based upon a document’s adherence to a quality specification), collecting and comparing known information (comparing a known document to a predetermined quality specification), and organizing information through mathematical correlations (assessing a document based upon mathematical positive/negative quantifiers).

Final Act. 6. The Examiner further finds that claim 1 is directed to an abstract idea of itself, such as the utilization of a computer as a proxy for pen and paper to assist a human user to perform the steps of the method mentally (e.g., utilizing a word processor to present the document for consideration and scoring). Ans. 4. *See also CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375–76 (Fed. Cir. 2011) (citation omitted) (“[T]he basic character of a process claim drawn to an abstract idea is not changed by

claiming only its performance by computers, or by claiming the process embodied in program instructions on a computer readable medium.”).

Appellants argue that Examiner did not make a prima facie case of ineligibility because the Examiner did “not identif[y] any particular *abstract idea* allegedly claimed as corresponding to the *abstract idea* defined by the courts.” Reply Br. 18–19 (citing Bahr, *Formulating a Subject Matter Eligibility Rejection and Evaluating Applicant’s Response to a Subject Matter Eligibility Rejection*, at 1 (May 4, 2016)). We disagree because as discussed above, the Examiner compared the idea to which the claims are directed (editorial review or proofreading) to similar concepts the courts have identified as abstract ideas. Final Act. 6.

Appellants further contend that “the Office has not identified the specific limitations considered or any rationale as to why these limitations are not enough to qualify as ‘significantly more.’” App. Br. 19. We disagree. The Examiner concludes the claims do not include meaningful limitations that amount to significantly more than the abstract idea because the claims include no limitations that relate to a particularly novel implementation of a computer, processor or other structural element that would deviate from the generic device. Final Act. 6. The Examiner further finds that “**claim 1** and its dependent claims require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.” Final Act. 5.

Therefore, we find that the Examiner established a prima facie case of ineligibility because the Examiner adequately informed Appellants the

reasons for the rejection to allow Appellants to recognize and seek to counter the grounds of rejection. *See Chester v. Miller*, 906 F.2d at 1578.

Alice Step 1

Regarding *Alice* step 1, Appellants contend the claims are directed to “a technique for providing standardized document quality assessment by using positive and negative predetermined quality criteria and identifying characteristics of the document to determine a quality score by assessing the document against the predetermined quality criteria.” Reply Br. 21.

Appellants contend this idea is not an “abstract idea,” nor are the claims directed to a concept which the courts have found to be abstract ideas. *Id.*

Appellants’ contentions are not persuasive because, among other things, Appellants do not squarely address—let alone persuasively rebut—the Examiner’s finding that the claims are directed to “an identification of document attributes and assessment of that document based upon a predetermined set of criteria provided by a human user: in other words, an editorial review of said document.” Final Act. 5; Ans. 4. Rather than distinguishing the claimed invention from the abstract idea of “editorial review of a document,” Appellants merely contend that the Examiner’s characterization is at a higher level of abstraction—a contention that is not persuasive of error. *See Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240–41 (Fed. Cir. 2016) (“An abstract idea can generally be described at different levels of abstraction.”).

We are also not persuaded by Appellants’ contention that the claims are not directed to a concept which the courts have found to be abstract ideas. As discussed above, we agree with the Examiner that the claims

directed to idea of editorial review by comparing a document to quality criteria is similar to abstract ideas in the category of an abstract idea of itself, the courts have found abstract: A process for comparing new and stored information and using rules to identify options, *SmartGene Inc. v. Advanced Biological Labs. SA*, 555 Fed. Appx. 950 (Fed. Cir. 2014) (nonprecedential); collecting and comparing known information, *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1167 (Fed. Cir. 2011); and organizing information through mathematical correlations, *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014). Final Act.

6. Appellants do not squarely address, let alone persuasively rebut, the Examiner's specific comparisons and conclusions.

Appellants also argue the claims recite patent-eligible subject matter that is “rooted in computer technology” because the claimed standardizing document assessment is for a specific computer problem, namely how to remove the subjectiveness of human assessment. Reply Br. 22. Appellants contend a “document assessor” performs the claimed non-generic computer functions that solve this computer problem. Reply Br. 22.

We are not persuaded by Appellants' arguments. First, in *DDR* the claims at issue were “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR Holdings, LLC v. Hotels.com L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014). Appellants' problem of removing human subjectiveness is not a problem specifically arising in the realm of computers.

Second, Appellants fail to specifically identify what claimed computer functions the “document assessor” performs, and why these functions are unconventional. *See* Reply Br. 22. Appellants fail to present any evidence

or persuasive argument that the recited processor or annotator performs non-generic functions. *See DDR*, 773 F.3d at 1256 (reciting generic computer elements does not make a claim directed to an abstract idea patent-eligible).

Furthermore, Appellants argue that the claimed identifying step (identifying document characteristics using annotators) is unconventional. Reply Br. 22. However, the originally-filed Specification states the claimed identifying step can be performed using known UIMA annotators (e.g., found at <http://uima.apache.org>). Spec. ¶ 53 (originally filed). Therefore, according to the Specification, the identifying step appears to be well-understood, routine, and conventional activity. Furthermore, the Specification states that Microsoft® Word can access and score the readability of a document thus supporting that the claimed identifying, accessing and determining a score steps are conventional activities. Spec. ¶¶ 35–37. For these reasons, we are not persuaded that the claims recite patent eligible subject matter that is “rooted in computer technology.” *See DDR*, 773 F.3d at 1257.

Appellants argue that the claims are not directed to an abstract idea because the claims do not “pre-empt others from ‘accepting and assessing documents based upon some pre-defined set of criteria.’” Reply Br. 22–23. This argument is not persuasive because although “preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). It is well settled that “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the [*Alice/Mayo*] framework . . . , preemption concerns are fully addressed and made moot.” *Id.*

Appellants argue that computer-related inventions can be patent-eligible despite no improvement to the “computer itself.” Reply Br. 26 (citing *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)). Appellants contend that the “claims at the very least represent a software improvement to document assessment, Claim 1, an improvement *that is novel and non-obvious as compared to prior art techniques.*” Reply Br. 27. Appellants add that the claims provide a technological improvement that amounts to significantly more than the abstract idea. Reply Br. 29–30.

Appellants’ arguments are not persuasive. In *McRO*, the court explained that “the claimed improvement [was] allowing computers to produce ‘accurate and realistic lip synchronization and facial expressions in animated characters’ that previously could only be produced by human animators.” *McRO*, 837 F.3d at 1313 (citation omitted). The court explained that the claimed rules in *McRO* transformed a traditionally *subjective* process performed by human artists into a mathematically *automated* process executed on computers (i.e., the processes were fundamentally different). *Id.* at 1314. The court explained that “it [was] the incorporation of the claimed rules, not the use of the computer, that ‘improved [the] existing technological process’ by allowing the automation of further tasks.” *Id.* at 1314 (alteration in original) (quoting *Alice*, 134 S. Ct. at 2358). The court distinguished these facts from situations “where the claimed computer-automated process and the prior method were carried out in the same way.” *Id.* (citing *Parker v. Flook*, 437 U.S. 584, 585–86 (1978); *Bilski v. Kappos*, 561 U.S. 593, 611 (2010); *Alice*, 134 S. Ct. at 2356)).

Here, Appellants' claims merely automate editorial reviews otherwise performed by humans, such as a teacher reviewing and grading a document. Appellants' assertion that claim 1 is a novel improvement to document assessment does not specify any specific rules or steps that improve the "existing technological process" or claim "processes [that are] fundamentally different." *McRO*, at 1313–14. We further agree with the Examiner that claim 1 requires no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry. Final Act. 5; Ans. 4. In short, merely reciting an abstract idea and adding the words "apply it with a computer" does not render an abstract idea non-abstract: there must be more. *See Alice* at 2358. Nor does the claimed invention improve the computer processor device's functionality or efficiency, or otherwise change the way that device functions. *Cf. Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016).

For these reasons we agree with the Examiner that the claims are directed to an abstract idea.

Alice Step 2

Appellants contend the claims recite significantly more than the abstract idea because the "claims describe[] the specific technical improvements to document assessment allocation in novel, non-obvious ways. *See Claim 1.*" Reply Br. 27; *see* App. Br. 25. Appellants' contention does not persuade us of error. Notwithstanding that "the § 101 patent-eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap' . . . a claim for a new abstract idea is still an abstract idea."

Synopsys, Inc. v. Mentor Graphics Corp., 839 F.3d 1138, 1151 (Fed. Cir. 2016) (quoting *Mayo*, at 1304). The question in the second step of the patent-eligibility analysis is whether the implementing the abstract idea involves “more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.’” *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (quoting *Alice*, 134 S. Ct. at 2359).

Here, the recited computing components are generic and conventional, and there is no indication that implementing the recited steps requires something apart from routine and conventional computer functions, such as (1) receiving criteria and information, (2) analyzing information, (3) comparing information against criteria, and (4) scoring results. *See* claim 1. As discussed above, the Specification describes well understood, routine and conventional annotators, and notes that the Microsoft® Word readability scoring function can perform the claimed functions. *See* Spec.¶¶ 53, 35–36 (originally-filed Specification). Furthermore, the fact that the claims address the problem of subjectiveness when a human scores quality does not establish that implementing the abstract idea involves something other than well-understood, routine, and conventional computer functions.

In addition, despite the claimed data manipulation functions are performed using a processor, we, nevertheless, see no reason why they could not be otherwise performed entirely mentally, or by a human using a pen and paper—exclusive mental functions ineligible for patent protection under § 101. *See CyberSource*, 654 F.3d at 1372.

Furthermore, any speed increase or efficiency comes from the capabilities of the generic computer components—not the process itself. *See*

FairWarning IP, LLC v. Iatric Sys., Inc., 839 F.3d 1089, 1095 (Fed. Cir. 2016) (citing *Bancorp Servs., LLC v. Sun Life Assurance Co.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“[T]he fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.”)). Like the claims in *FairWarning*, claim 1’s focus is not on an improvement in computer processors as tools, but on certain independently abstract ideas that use generic computing components as tools. *See FairWarning*, 839 F.3d at 1095 (citations and quotation marks omitted).

Accordingly, Appellants’ arguments do not persuade us of error in the Examiner’s conclusion that the claims do not recite significantly more than the abstract idea.

CONCLUSION

On this record, we see no error in the Examiner’s rejection under 35 U.S.C. § 101 of claim 1. Therefore, we are not persuaded that the Examiner erred in rejecting claim 1, and claims 3, 5, 7–11, 13, 15, and 17–22 not argued separately with particularity.

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Application 12/944,970

DECISION

The Examiner's decision to reject claims 1, 3, 5, 7–11, 13, 15, and 17–22 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)(1)(iv).

AFFIRMED