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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte AL CHAKRA, LIAM HARPUR, and JOHN RICE

Appeal 2017-002782
Application 14/608,407¹
Technology Center 2600

Before MICHAEL J. STRAUSS, JON M. JURGOVAN, and
KARA L. SZPONDOWSKI, *Administrative Patent Judges*.

JURGOVAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's
Final Rejection of claims 1–7. We have jurisdiction under 35 U.S.C. § 6(b).
We affirm.²

¹ Appellants identify International Business Machines Corporation as the real party in interest. App. Br. 1.

² Our Decision refers to the Specification (“Spec.”) filed Jan. 29, 2015, the Final Office Action (“Final Act.”) mailed Jan. 4, 2016, the Appeal Brief (“App. Br.”) filed Apr. 28, 2016, the Examiner’s Answer (“Ans.”) mailed Oct. 21, 2016, and the Reply Brief (“Reply Br.”) filed Dec. 6, 2016.

CLAIMED INVENTION

The claims are directed to adjusting text in a message based on the recipient's interests (e.g., traveling, collecting baseball cards) and/or personality traits (e.g., hates loud music). Abstract. Claim 1 is reproduced below:

1. A method for adjusting text in a message to sustain recipient's interest in the message, the method comprising:
 - receiving a message for one or more recipients;
 - identifying said one or more recipients to receive said message;
 - retrieving information regarding said identified one or more recipients, wherein said information comprises interests and/or personality traits of said identified one or more recipients;
 - utilizing a linguistic engine to generate words and phrases associated with an interest and/or personality trait of a first recipient of said identified one or more recipients; and
 - utilizing, by a processor, natural language processing to change words and ordering of words in said message to include words and phrases associated with said interest and/or personality trait of said first recipient of said identified one or more recipients.

App. Br. 42 ("Claims App'x").

REJECTIONS

Claims 1–7 stand provisionally rejected on the ground of nonstatutory double patenting over claims 8–21 of US Application No. 14/243,726. Final Act. 5–7. This rejection remains provisional because the copending application relied upon by the Examiner has not issued as a patent as of the mailing date of this Decision. Accordingly, we do not reach this provisional rejection in our decision.

Claims 1–7 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. *Id.* at 8–9.

Claims 1 and 3–7 stand rejected under 35 U.S.C. § 102(a)(2) based on Vellal (US 2014/0359480 A1, Dec. 4, 2014). Final Act. 9–11.

Claim 2 stands rejected under 35 U.S.C. § 103(a) based on Vellal and Goeldi (US 2010/0119053 A1, May 13, 2010). *Id.* at 12–13.

ANALYSIS

§ 101 Rejection

Patent eligibility is a question of law that is reviewable *de novo*. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012).

Patentable subject matter is defined by 35 U.S.C. § 101, as follows:

[w]hoever 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.

In interpreting this statute, the Supreme Court emphasizes that patent protection should not preempt “the basic tools of scientific and technological work.” *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012); *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014). The rationale is that patents directed to basic building blocks of technology would not “promote the [p]rogress of [s]cience” under the U.S. Constitution, Article I, Section 8, Clause 8, but instead would impede it. Accordingly, laws of nature, natural phenomena, and abstract ideas, are not patent-eligible subject matter. *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1346 (Fed. Cir. 2017) (citing *Alice*, 134 S. Ct. at 2354).

The Supreme Court set forth a two-part test for subject matter eligibility in *Alice* (134 S. Ct. at 2355). The first step is to determine whether the claim is directed to a patent-ineligible concept. *Id.* (citing *Mayo*, 566 U.S. at 76–77). If so, then the eligibility analysis proceeds to the second step of the *Alice/Mayo* test in which we “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*, 134 S. Ct. at 2357 (quoting *Mayo*, 566 U.S. at 72, 79). The “inventive concept” may be embodied in one or more of the individual claim limitations or in the ordered combination of the limitations. *Id.* at 2355. The “inventive concept” must be significantly more than the abstract idea itself, and cannot be simply an instruction to implement or apply the abstract idea on a computer. *Id.* at 2358. “[W]ell-understood, routine, [and] conventional activit[ies]’ previously known to the industry” are insufficient “to transform an abstract idea into a patent-eligible invention.” *Id.* at 2359–60 (citing *Mayo*, 566 U.S. at 73).

The Examiner finds that “[t]he claimed invention is directed to non-statutory subject matter because the claims as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea.” Final Act. 8. Specifically, the Examiner finds “[t]he claims are directed to the abstract idea of adjusting text in a message to sustain recipients’ interest in the message.” *Id.* The Examiner finds “[v]iewed as a whole, [the] additional claim elements do not provide meaningful limitations to transform the abstract idea into a patent

eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself.” *Id.* at 9.

In particular, the Examiner finds “[a]ll the steps of Appellant[s]’ claims are an abstract concept that could be performed in the human mind, or by a human using a pen and paper.” Ans. 9. “The claims need meaningful limitations that go beyond generally linking the use of an abstract idea to a particular technological environment.” *Id.* (citing *In re Comiskey*, 554 F.3d 967, 979 (Fed. Cir. 2009) (“[M]ental processes—or processes of human thinking—standing alone are not patentable even if they have practical application.”); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (“Phenomena of nature . . . , mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.”)).

After reviewing Appellants’ arguments for patentability, we agree with the Examiner’s findings and determination that claims 1–7 are directed to non-statutory subject matter and, thus, we sustain the § 101 rejection against claims 1–7.

Initially, we note that claim 1 recites a “method” which ostensibly fits within the statutory category of a “process” as set forth in 35 U.S.C. § 101. Accordingly, the claims meet this requirement, so we proceed to analyze the claims under the *Alice/Mayo* test.

Under the first step of *Alice/Mayo*, the Examiner finds the claims are directed to the abstract idea of adjusting text in a message to sustain recipients’ interest in the message. Final Act. 8. The Examiner’s statement of the abstract idea mirrors exactly the preamble of claim 1, and is indeed something that can be performed in the human mind or using pen and paper,

as the Examiner finds. For example, one could write a message to recipients that is proofread by another and modified to make it more interesting based on knowledge the proofreader has of the recipients' interests and personalities, using the human mind or pen and paper. We agree with the Examiner's findings concerning the identification of the abstract idea the claims are "directed to" under step one of *Alice/Mayo*.

Turning to step two of the *Alice/Mayo* analysis, Appellants contend the steps of claim 1 are described in the Specification as performed by a computer, not in the human mind or by pen and paper, so the claims should be correspondingly interpreted. App. Br. 3–5 (citing Spec. ¶¶ 40, 42, 44, 45). In this respect, we note that claim terms are given their broadest reasonable interpretation consistent with the Specification. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004). At the same time, care must be exercised not to import limitations into the claims or to read a particular embodiment appearing in the written description into the claim if the claim language is broader than the embodiment. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989)). Furthermore, limitations not appearing in the claims cannot be relied upon for patentability. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982).

Claim 1 recites no technical means, such as a computer or processor, in the performance of the "receiving," "identifying," and "retrieving" steps. Although the Specification may describe these steps as performed by a computer, the description does not exclude the possibility of performance in the human mind or using pen and paper. As explained in *Van Geuns*, limitations cannot be imported from the Specification into the claims. *See*

Van Geuns, supra. Furthermore, unrecited limitations cannot support patentability. *See Self, supra.* As these steps recite no technical means to carry them out, they could be performed in the human mind or using pen and paper, as the Examiner finds.

Although the two “utilizing” steps of claim 1 involve a “linguistic engine” and “processor,” “[c]ourts have examined claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person’s mind.”

Versata Dev. Group, Inc. v. SAP Am., Inc., 793 F.3d 1306, 1335 (Fed. Cir. 2015).

In order for the addition of a machine to impose a meaningful limit on the scope of a claim, it must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for performing calculations.

SiRF Tech., Inc. v. Int’l Trade Comm’n, 601 F.3d 1319, 1333 (Fed. Cir. 2010) (“*SiRF*”).

In this case, the claims are directed to adjusting a message to make it more interesting in order to sustain recipients’ interest and the claims merely use a computer to improve the performance of adjusting the message. As in *SiRF*, the claimed invention does not improve performance of the computer, or some other technology.

Moreover, the appropriate inquiry in this regard is not whether the claimed steps are described in the Specification as being performed by a computer, but whether the claim recites “significantly more” than the abstract idea under the second step of *Alice/Mayo*. “For the role of a computer in a computer-implemented invention to be deemed meaningful in

the context of this analysis, it must involve more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.’” *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (citing *Alice*, 134 S. Ct. at 2359). “[M]ethod claims, which merely require generic computer implementation, fail to transform that abstract idea into a patent-eligible invention.” *Alice*, 134 S. Ct. at 2350.

The “linguistic engine” is claimed so generally it could be interpreted not only as a part of a computer, but also as the part of the human mind responsible for speech and language functions. Also, the “processor” in the final “utilizing” step of claim 1 is not identified in the record as something other than generic and well-known in industry. To the contrary, this processor is described in the Specification as included in “a general purpose computer, special purpose computer, or other programmable data processing apparatus,” which are well known uses for a generic processor. Spec. ¶ 34.

Commensurately, the recited “natural language processing” is not identified as providing an inventive concept. The Specification does not describe what it is, which implies that the term is well known to industry assuming the Specification meets the requirements of § 112. Spec. ¶¶ 15, 42, 45, 54. Thus, we find no inventive concept in the claimed “natural language processing.”

We also note the steps of claim 1 appear to involve computerization of some aspects of a human activity that have been performed for decades, if not centuries. For example, a sales executive provides a general message about a sales initiative to account managers who customize the message for prospective customers based on their interests or personalities (e.g., likes and

dislikes). Or a museum executive provides a letter to a donor relationship manager who customizes the letter to individuals on a list to suit the interests and personalities of particular donors to urge them to give to a fundraising campaign. Or a parent helps a child to revise a letter to a grandparent to include the child's activities that would be interesting to the grandparent.

Although it may be a feat to accomplish these human tasks with a computer, thus, emulating human intelligence, the claimed invention provides no particularity to specify how these tasks are performed by the computer. Merely claiming use of a computer to achieve a result that is well known to have been performed by humans does not capture the technical detail of what makes it possible for the computer to carry out human functions to particularize a message to recipients according to their interests or personalities. In this connection, we are mindful that the inquiry is “whether the claims in these patents 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 and merely invoke generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016); *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1048 (Fed. Cir. 2016)). As the claims are presented on appeal here, the latter is the case. In other words, the claimed invention is missing an “inventive concept” sufficient to transform the abstract idea embodied therein into patent-eligible subject matter.

Appellants' state that claims 1–7 address a business challenge of assisting an author in composing a message to sustain the recipient's interest in the message. App. Br. 6–8. At the same time, Appellants argue the

additional elements of the claims other than the abstract idea are “rooted in computer technology” similar to *DDR Holdings, LLC v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014). App. Br. 6–8.

However, the problem the claimed invention solves is not technological in nature; it is instead a problem existing in business (and other realms of human activity), as Appellants acknowledge. App. Br. 7. The only features of the claims that could be considered technological are the “linguistic engine” and the “processor” but these are recited in such a general, generic, functional, and result-based manner that the claims fail to capture, with particularity, aspects of the invention that make it possible for these elements to provide a solution to the “business challenge.” Under similar circumstances, our reviewing court has held patent claims ineligible. *See Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1301–02 (Fed. Cir. 2016) (summarizing cases in which claims found to be ineligible subject matter).

In the Reply Brief, Appellants argue the claims “are not a purely mental process that could otherwise be performed in any reasonable amount of time and with any reasonable expectation of accuracy without the use of a computer.” Reply Br. 2–5 (emphasis omitted). This is a new argument raised for the first time in the Reply Brief, which we do not consider at this stage in the appeal absent a showing of good cause, as the Examiner has not had the opportunity to address this argument. 37 C.F.R. § 41.41(b)(2).

Even if we could consider this argument, however, we find no language in the claims that implies any speed or accuracy constraint that a human could not attain, necessitating the use of a computer. And the issue would still remain, as discussed with respect to *SiRF*, *supra*, whether the

computer as claimed is being used merely for its well-known purposes to improve speed and accuracy of adjusting messages relative to what a human could achieve, or whether the claim recites detailed steps or functions the computer performs to emulate human behavior in adjusting messages to be more interesting to a recipient.

Appellants further argue in the Reply Brief that the Examiner failed to provide evidence that the claimed invention can be performed in the human mind or by a human using a pen and paper without providing evidence. Reply Br. 8–9. This appears to repeat Appellants’ earlier argument that because the claims recite a “linguistic engine” and “processor” they cannot be performed in the mind or with pen and paper. However, as discussed at length, recitation of a generic computer implementation is insufficient to transform the claimed subjected matter into a patent-eligible one. *Alice*, 134 S. Ct. at 2350.

Appellants further argue in the Reply Brief

the Examiner needs to clearly articulate the reason(s) why the claimed invention is not eligible, for example, by providing a reasoned rationale that identifies the judicial exception recited in the claim and why it is considered an exception, and that identifies the additional elements in the claim (if any) and explains why they do not amount to significantly more than the exception.

Reply Br. 9.

We reviewed the Examiner’s findings and determinations and are satisfied the Examiner clearly identified the abstract idea contained in the claims and explained why the additional elements in the claim do not amount to “significantly more” than the abstract idea. Final Act. 8–9, Ans. 7–10. Thus, Appellants’ argument is unpersuasive.

Also, in the Reply Brief, Appellants argue that the machine-or-transformation test is not the determinative test for patent eligibility. Reply Br. 10. From the record, the Examiner did not rely exclusively on the machine-or-transformation test, which is mentioned only once in the Examiner's Answer, as providing a useful clue in the second step of the *Alice* framework. Ans. 10. We find no error in the Examiner's use of the machine-or-transformation test.

Appellants go on to argue in the Reply Brief that it is transformative under the machine-or-transformation test to change words and ordering of words in a message to include words and phrases associated with the interest and/or personality trait of the recipient according to claim 1. For all of the foregoing reasons, which we will not repeat here, Appellants have not shown the additional elements of the claim amount to "significantly more" than the abstract idea. Thus, we do not agree with Appellants' argument.

We also note that the objective of claim 1 appears to be "to sustain recipient's interest in the message." However, the claim recites no step of sending the message to the recipient and the recipient having their interest sustained by the modified message. Thus, as recited, claim 1 does not ever achieve the objective of the abstract idea stated in the preamble of claim 1. Although dependent claims 4 and 7 address sending of the message to a recipient, the remaining claims do not. In any case, the interest of the recipient in the modified message is a state of mind and it would be difficult to see how this could add "significantly more" to the claim without the recipient performing some technical action in response to interest in the message.

For all of the foregoing reasons, viewed as a whole, Appellants have not demonstrated that the steps of the claimed invention involve an inventive concept that is “significantly more” than the abstract idea recited in the claims.

We also note that significant preemption would result from a patent on the claimed invention. Specifically, a patent encompassing changing a message according to interests or personality traits of a recipient using a generic “linguistic engine” and “processor” along with well-known “natural language processing” would significantly foreclose use of the abstract idea embodied in the claims. In any case, even if the claims do not entirely preempt use of the abstract idea, “the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

Considering all of the foregoing, we determine that the claims are directed to non-statutory subject matter under 35 U.S.C. § 101.

§ 102(a)(2) Rejection

Appellants assert that Vellal does not disclose “utilizing, by a processor, natural language processing to change words and ordering of words in said message to include words and phrases associated with said interest and/or personality trait of said first recipient of said identified one or more recipients” as recited in claim 1. App. Br. 18, 21. The Examiner finds this feature is disclosed in Vellal. Final Act. 10 (citing Vellal ¶¶ 37–39, 47, 52); Ans. 12 (citing ¶¶ 38–39).

The Examiner is correct insofar as Vellal teaches synonymous or semantically related keywords can be used to retrieve messages related to a displayed message, which involves changing words. *See* Vellal ¶ 38.

However, although Vellal discloses ordering of messages based on keywords (e.g., ¶ 4), we find no mention of changing the ordering of words in a message. We read the claimed “processing to change words and ordering of words in said message” in the conjunctive to require both changing words and word ordering. Since the Examiner has not shown that Vellal discloses changing the ordering of words in a message, we do not sustain the rejection of claim 1 or its dependent claims under 35 U.S.C. § 102(a)(2).

§ 103 Rejection

Claim 2 depends from claim 1 and, thus, incorporates all of its limitations. We find no mention of changing word order in a message in Goeldi. Accordingly, the Examiner has not shown Goeldi teaches or suggests the deficiency of Vellal indicated with respect to the § 102(a)(2) rejection, and, for this reason, we determine claim 2 would not have been obvious to a person of ordinary skill in the art on this record. We, therefore, do not sustain the § 103 rejection of claim 2.

DECISION

We do not reach the provisional rejection of claims 1–7 on the ground of nonstatutory double patenting.

We affirm the rejection of claims 1–7 stand under 35 U.S.C. § 101 as directed to non-statutory subject matter.

We reverse the rejection of claims 1 and 3–7 stand rejected under 35 U.S.C. § 102(a)(2).

We reverse the rejection of claim 2 under 35 U.S.C. § 103(a).

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Because we affirm at least one ground of rejection with respect to each claim on appeal, we affirm the Examiner's decision rejecting claims 1–7. *See* 37 C.F.R. § 41.50(a)(1).

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED