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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DONNA K. BYRON and JASON D. LAVOIE

Appeal 2018-006437
Application 15/212,216
Technology Center 2100

Before, CARL L. SILVERMAN, JOHN D. HAMANN, and
STEVEN M. AMUNDSON, *Administrative Patent Judges*.

SILVERMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–20, which constitute all pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Throughout this Decision, we use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42 (2018). Appellant identifies International Business Machines Corporation as the real party in interest. Appeal Br. 2.

STATEMENT OF THE CASE

The invention relates to mining threaded online discussions. Abstract; Spec. ¶ 3, Figs. 3, 4. Claim 1, reproduced below, is exemplary of the subject matter on appeal (emphasis added):

1. A method, in an information handling system comprising a processor and a memory, of mining threaded online discussions, the method comprising:
 - performing, by the information handling system, a natural language processing (NLP) analysis of one or more threaded discussions pertaining to a given topic, wherein the analysis is performed across one or more web sites with each of the web sites including one or more of the threaded discussions, wherein the analysis results in a plurality of harvested discussions;
 - identifying a question from the harvested discussions;
 - adding one or more of the harvested discussions to a corpus that is utilized in a Question/Answer (QA) system, wherein the added harvested discussions correlate with the identified question, the adding resulting in an updated corpus;*
 - answering a question posed to the QA system, wherein the answering comprises:
 - comparing a plurality of questions found in the added harvested discussions to the posed question, wherein the identified question correlates to the posed question;
 - identifying a plurality of candidate answers from the added harvested discussions, wherein each of the plurality of candidate answers pertain to the identified question;
 - aggregating and merging a selected plurality of the added harvested discussions corresponding to each of the candidate answers, wherein the selected plurality of added harvested discussions are supporting evidence corresponding to the respective candidate answer;
 - generating a supporting evidence score based on one or more factors of the supporting evidence for each of the candidate answers;
 - scoring each of the plurality of candidate answers, wherein the scoring calculates an overall score corresponding to each of the

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candidate answers, wherein the overall score is based upon at least the supporting evidence score; and
selecting an answer to the posed question based on the scoring.

Appeal Br. 18–19 (Claims Appendix).

THE REJECTIONS

Claims 1–20 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to patent-ineligible subject matter. Final Act. 2–8.

Claims 14–20 are additionally rejected under 35 U.S.C. § 101 because the claims cover transitory propagating signals. Final Act. 4–5.

ANALYSIS

PRINCIPLES OF LAW

Patent-eligible subject matter is defined in 35 U.S.C. § 101 of the Patent Act, which recites:

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.

There are, however, three judicially created exceptions to the broad categories of patent-eligible subject matter in 35 U.S.C. § 101: “[l]aws of nature, natural phenomena, and abstract ideas.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quotation marks and citation omitted); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (brackets in original).

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*. See *Alice*, 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. at 75–77). In accordance with that framework, we first determine what concept the claim is “directed to.” See *id.* 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, 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 (1854))); 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 187; see also *id.* at 191–92 (“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 (citation). “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 (alteration in original)). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

In January 2019, the United States Patent and Trademark Office (“USPTO”) published revised guidance on the application of § 101. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”). Under that guidance, we first determine 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)).

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 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 Guidance, 84 Fed. Reg. at 54–56.

A claim that integrates a judicial exception into a practical application applies, relies on, or uses the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception. *See* Guidance, 84 Fed. Reg. at 54. When the judicial exception is so integrated, then the claim is not directed to a judicial exception and is patent eligible under § 101. *Id.*

The § 101 Rejection of claims 1–20

The Examiner determines claim 1 is directed to:

“performing a natural language processing analysis ... , identifying a question from the harvested discussions, adding one or more of the harvested discussions ... , answering a question posed to the QA system ... , comparing a plurality of questions found ... , identifying a plurality of candidate answers ... , aggregating and merging a selected plurality of the added harvested discussions ... , generating a supporting evidence score ... , scoring each of the plurality of candidate answers ... , and selecting an answer to the posed question based on the scoring” which recite an abstract idea.

Final Act. 6.

The Examiner determines these steps describe the abstract idea of collecting information and comparing known information similar to the concepts that have been identified as abstract by the courts in *Classen*, and

also similar to the abstract idea of obtaining and comparing intangible data in *CyberSource*. *Id.* (citing *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067 (Fed. Cir. 2011); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011)). The Examiner determines that the steps of “*comparing ... , aggregating and merging ... , scoring ... , and selecting an answer to the posed question based on the scoring*” describe the abstract idea of creating an index and using that index to search for and retrieve data similar to the concepts that have been identified as abstract by the courts in *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017), or customizing information presenting it to users based on particular characteristic similar to the concepts that have been identified as abstract by the courts in *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363 (Fed. Cir. 2015). *Id.*

The Examiner determines dependent claims 2–7 further recite “*wherein the identified question matches the posed question*’, ‘*wherein the overall score ... candidate answers*’, ‘*performing at least one sentiment analysis ... candidate answers*’, ‘*identifying a plurality ... conversational moves*’, ‘*pruning one or more of the follow-up ... pruning criteria*’, ‘*wherein at least one of the factors is selected ... was correct*,’” and determines that “these additional recited elements taken individually or as a combination fail to establish that the claims are not directed to an abstract idea for the same reason already recited in independent claim 1.” *Id.* at 7.

The Examiner determines the claims do not include additional elements that are sufficient to amount to significantly more than the abstract idea because the additional computer elements, e.g., “a processor and a memory” recited in claim 1, which are recited at a high level of generality,

provide conventional computer functions that do not add meaningful limits to practicing the abstract idea. *Id.* at 7. According to the Examiner:

[t]here is no indication that the combination of elements improves the functioning of a computer or improves any other technology. Their collective functions merely provide conventional computer implementation. Merely adding a generic computer, generic computer components, or a programmed computer to perform generic computer functions does not automatically overcome an eligibility rejection.

Id.

The Examiner applies the same reasoning to the rejection of claims 8–20. *Id.* at 8.

Appellant argues the claims² are not directed to an abstract idea and the claims include limitations that are significantly more than an abstract idea. Appeal Br. 9. According to Appellant, the claims are necessarily rooted in computer technology ((the field of Question/Answer (QA) computer technology)). In particular:

Appellant claims specific improvements in the technical field of QA computer systems. For example, harvested discussions are added “to a corpus that is utilized in a Question/Answer (QA) system.” The added harvested discussions result in “an updated corpus” that is used by the QA computer system to answer a posed question. The use of the added harvested discussions results in better answers being provided by the QA computer system because the QA computer system uses the updated corpus, with the added harvested discussions, to better identify candidate answers, aggregate and merge supporting evidence, generate supporting evidence scores for each of the candidate answers, score each of the candidate answers, and select an answer.

Id. at 9.

² Appellant groups claims 1–20 together for argument, and we choose claim 1 as representative. 37 C.F.R. § 41.37(c)(iv).

Appellant argues the cases cited by the Examiner are inapplicable because the “claims include specific, concrete steps such as adding harvested discussions to a corpus utilized by a QA computer system, such that the corpus is changed by such additions, i.e., “the adding resulting in an updated corpus.” *Id.* at 11–12. According to Appellant, the “claims clearly deal with a machine, i.e. a QA computer system, and clearly transform a corpus utilized by the QA system into an updated corpus.” *Id.* at 12.

Appellant argues the claims are “directed to a specific implementation of a solution to a problem in the software arts,” i.e., improving the field of QA computer systems so that such systems provide better and more accurate answers to posed questions” similar to *Enfish*. *Id.* at 12–13.

Appellant argues, contrary to the Examiner’s assertion, that QA computer systems are computer technology. *Id.* at 13. Appellant argues when viewed as a whole and in light of the Specification, it is clear that Appellant’s claimed invention improves the capabilities of the QA computer system, such that the QA computer system provides more accurate and relevant answers to posed questions. *Id.* at 14–16 (citing Spec. ¶¶ 26, 27).

In the Answer:

Examiner notes that Question/Answer (QA) computer systems is not a computer technology. It is more of an abstract concept formulated in one’s mind i.e. a person formulates/poses a question, and another will give an answer. The computer systems are recited at a high level of generality, provide conventional computer functions that do not add meaningful limits to practicing the abstract idea. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology. Their collective functions merely provide conventional

computer implementation. Merely adding a generic computer, generic computer components, or a programmed computer to perform generic computer functions does not automatically overcome an eligibility rejection.

Ans. 5.

The Examiner notes that the Machine-or-Transformation test is a clue, not a stand-alone test, and the machine components in claims 1–20 do not impose any meaningful limitations on the abstract idea as they amount to applying the idea with a computer. *Id.* at 6–7. According to the Examiner, Appellant’s end result is an “updated corpus” that is used by the QA computer system to answer posed questions and the claims simply require obtaining and comparing intangible data (i.e. data pertinent to questions and answers). The updated corpus of added harvested discussions may be an improvement, but the improvement lies in the abstract idea rather than in a computer technology. *Id.* at 7.

The Examiner determines *Enfish* is not applicable because the claims simply require collecting information and comparing known information pertinent to questions and answers. *Id.* at 8. Regarding Appellant’s argument that the claimed invention is an updated corpus, the Examiner determines Appellant does not disclose and claim sufficient features in regards to the advantages of an updated corpus that would amount to significantly more than the abstract idea. *Id.* at 8.

In the Reply Brief, Appellant reiterates that the claims are directed to concrete and specific improvements to QA computer systems. Reply Br. 3. According to Appellant, the limitations “adding one or more of the harvested discussions to a corpus that is utilized in a Question/Answer (QA) system[”], [“]the adding resulting in an updated corpus[”], and answering a question

posed to the QA system” could not be performed in the human mind. *Id.*
at 4.

Below, pursuant to the Guidelines, claim 1 is reviewed with regard to reciting the abstract ideas of mental processes and organizing human activity. The claim 1 limitations may be parsed as set forth below wherein elements that reflect recitation of these abstract ideas are italicized:

1. A method, in an information handling system comprising a processor and a memory, of mining threaded online discussions, the method comprising:

performing, by the information handling system, a natural language processing (NLP) analysis of one or more threaded discussions pertaining to a given topic, wherein the analysis is performed across one or more web sites with each of the web sites including one or more of the threaded discussions, wherein the analysis results in a plurality of harvested discussions;

identifying a question from the harvested discussions;
adding one or more of the harvested discussions to a corpus that is utilized in a Question/Answer (QA) system, wherein the added harvested discussions correlate with the identified question, the adding resulting in an updated corpus;

answering a question posed to the QA system, wherein the answering comprises:

comparing a plurality of questions found in the added harvested discussions to the posed question, wherein the identified question correlates to the posed question;

identifying a plurality of candidate answers from the added harvested discussions, wherein each of the plurality of candidate answers pertain to the identified question;

aggregating and merging a selected plurality of the added harvested discussions corresponding to each of the candidate answers, wherein the selected plurality of added harvested discussions are supporting evidence corresponding to the respective candidate answer;

generating a supporting evidence score based on one or more factors of the supporting evidence for each of the candidate answers;

*scoring each of the plurality of candidate answers, wherein the scoring calculates an overall score corresponding to each of the candidate answers, wherein the overall score is based upon at least the supporting evidence score; and
selecting an answer to the posed question based on the scoring.*

Each of the italicized limitations can be performed as mental processes. If a method can be performed by human thought alone, or by a human using pen and paper, it is merely an abstract idea and is not patent eligible under § 101. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011). “That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.” *CyberSource*, 654 F.3d at 1375. *See also Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146–47 (Fed. Cir. 2016).

Here, the claim is broadly written and recites determining questions and answers presented by one or more discussions pertaining to a given topic. In particular, *performing analysis of one or more discussions pertaining to a given topic wherein the analysis results in a plurality of harvested discussions* can be performed by a listener, or reader, of a discussion between two humans mentally and can be performed by a human using pen and paper. *Identifying a question from the harvested discussions* can be done similarly. Similarly, *adding one or more of the harvested discussions to a corpus that is utilized in a Question/Answer (QA) system, wherein the added harvested discussions correlate with the identified question, the adding resulting in an updated corpus*, is a mental process that can be done mentally and by pen and paper. Regarding *answering a question posed to the QA system*, this is a mental process that can be done

mentally and by pen and paper. Likewise, the limitations further describing the answering can be done mentally and by a human with pen and paper:

comparing a plurality of questions found in the added harvested discussions to the posed question, wherein the identified question correlates to the posed question;

identifying a plurality of candidate answers from the added harvested discussions, wherein each of the plurality of candidate answers pertain to the identified question;

aggregating and merging a selected plurality of the added harvested discussions corresponding to each of the candidate answers, wherein the selected plurality of added harvested discussions are supporting evidence corresponding to the respective candidate answer;

generating a supporting evidence score based on one or more factors of the supporting evidence for each of the candidate answers; scoring each of the plurality of candidate answers, wherein the scoring calculates an overall score corresponding to each of the candidate answers, wherein the overall score is based upon at least the supporting evidence score; and

selecting an answer to the posed question based on the scoring.

In view of the above, we determine that claim 1 recites mental processes, and thus an abstract idea. Additionally, we note that the italicized limitations also recite the abstract idea of organizing human activity, such as “managing personal behavior or relationships or interactions between people,” such as “social activities, teaching, and following rules or instructions.” 84 Fed. Reg. at 51–52.

Even if claim 1 recites an abstract idea, the Federal Circuit explains the “directed to” inquiry is not simply asking whether the claims involve a patent-ineligible concept:

The “directed to” inquiry . . . cannot simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim involving

physical products and actions *involves* a law of nature and/or natural phenomenon—after all, they take place in the physical world. *See Mayo*, 132 S. Ct. at 1293 (“For all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”). Rather, the “directed to” inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether “their character as a whole is directed to excluded subject matter.”

Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016); *see also Diehr*, 450 U.S. at 188 (“In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.”); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (the question is whether the claims as a whole “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.”).

Therefore, we proceed to Step 2A, Prong 2, of the Guidance to determine whether additional elements recited in the claims beyond the judicial exception of claim 1 integrate the abstract idea into a practical application. Such additional elements may reflect an improvement to a technology or technical field. *See Guidance*, 84 Fed. Reg. at 55.

As discussed below, there are no additional elements recited beyond the judicial exception itself that integrate the exception into a practical application. More particularly, the claims do not recite: (i) an improvement to the functionality of a computer or other technology or technical field (*see* MPEP § 2106.05(a)); (ii) a “particular machine” to apply or use the judicial exception (*see* MPEP § 2106.05(b)); (iii) a particular transformation of an article to a different thing or state (*see* MPEP § 2106.05(c)); or (iv) any other

meaningful limitation (*see* MPEP § 2106.05(e)). *See also* 84 Fed. Reg. at 55.

We determine the additional elements of claim 1 do not integrate the abstract idea into a practical application. We refer to the additional elements in the claim 1 preamble, *in an information handling system comprising a processor and a memory* and the additional elements “*a natural language processing (NLP) analysis, Question/Answer (QA) system, and corpus.*”

The claim is broadly written and the improvement, if any, of the claim is in the abstract idea itself, not in the functionality of a computer or other technology or technical field. A natural language processing (NLP) analysis can certainly be performed by an individual performing listening to an oral discussion or reading a written discussion. A Question/Answer (QA) system can similarly be performed mentally by a human or with pen and paper. The corpus is merely a summary of the data and analysis performed, and can be done mentally or by pen and paper. The claim does not recite a particular machine, a physical or chemical transformation, or other meaningful limitation. The claim limitations do not use the alleged abstract idea in a meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception. *See* MPEP § 2106.05(e).

Because the additional elements of claim 1 do not integrate the abstract idea into a practical application, we determine claim 1, and independent claims 8 and 14 which are commensurate in scope with claim 1, are directed to an abstract idea. *See* Guidance, Step 2A, Prong 2. For similar reasons, dependent claims 2–10, 12, 15–17, and 19–21 do not

integrate the abstract idea into a practical application, and are directed to an abstract idea.

Because we determine the claims are directed to an abstract idea, we analyze the claims under step two of *Alice* to determine whether there are additional limitations that individually, or as an ordered combination, ensure the claims amount to “significantly more” than the abstract idea. *Alice*, 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. at 72–73, 77–79). As stated in the Guidance, many of the considerations to determine whether the claims amount to “significantly more” under step two of the *Alice* framework are already considered as part of determining whether the judicial exception has been integrated into a practical application. 84 Fed. Reg. at 56. Thus, at this point of our analysis, we determine if the claims add a specific limitation, or combination of limitations, that is not well-understood, routine, conventional activity in the field, or simply append well-understood, routine, conventional activities at a high level of generality. 84 Fed. Reg. at 56.

As with the integration into a practical application analysis discussed above, an inventive concept “cannot be furnished by the unpatentable law of nature (or natural phenomenon or abstract idea) itself.” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016); *see also* 84 Fed. Reg. at 56; *Alice*, 573 U.S. at 217 (explaining that, after determining a claim is directed to a judicial exception, “we then ask, ‘[w]hat else is there in the claims before us?’” (emphasis added, brackets in original) (quoting *Mayo*, 566 U.S. at 78)). Instead, an “inventive concept” is furnished by an element or combination of elements that is recited in the claim *in addition to* the judicial exception and sufficient to ensure the claim as a whole amounts to significantly more than the judicial exception

itself. *Alice*, 573 U.S. at 218–19 (citing *Mayo*, 566 U.S. at 72–73); see *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (explaining that the Supreme Court in *Alice* “only assessed whether the claim limitations *other than the invention’s use of the ineligible concept* to which it was directed were well-understood, routine and conventional,” (emphasis added)).

Appellant’s claims fail to recite specific limitations (or a combination of limitations) that are not well-understood, routine, and conventional. Rather, the only additional elements (i.e., *in an information handling system comprising a processor and a memory, a natural language processing (NLP) analysis, Question/Answer (QA) system, and corpus*) are generic computer components recited at a high level of generality or a basic computer function, none of which Appellant argues is beyond what was well understood, routine, and conventional in the art. See Spec. ¶¶ 6–13; see also *Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (generic computer components such as an “interface,” “network,” and “database” fail to satisfy the inventive concept requirement).

To the extent Appellant argues creating and utilizing a *corpus* adds significantly more, we note that these steps are part of the ineligible abstract idea. “If a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.” *BSG Tech*, 899 F.3d at 1290–91 (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1370 (Fed. Cir. 2018)). “[I]t is irrelevant whether [the claimed abstract idea] may have been non-routine or unconventional as a factual matter . . .

narrowing or reformulating an abstract idea does not add ‘significantly more’ to it.” *BSG Tech*, 899 F.3d at 1291.

Regarding case law cited by the Examiner and Appellant, we are not persuaded by Appellant’s arguments. The claims here are unlike *Enfish* and *DDR* as the claims before us are broadly written and do not recite an improvement to a computer. As discussed *supra*, the claims at best recite an improvement to an abstract idea.

For the above reasons, Appellant has not persuaded us of Examiner error, and we sustain the Examiner’s rejection of claims 1–20 under 35 U.S.C. § 101.

§ 101 rejection of claims 14–20 (transitory propagating signals)

The Examiner determines that independent claim 14 recites “[a] computer program product stored in a *computer readable storage medium*,” and interprets this phrase, in view of the Specification, to include patent-ineligible transitory signals. (Emphasis added). Final Act. 4–5; Ans. 3–5; Spec. ¶¶ 26, 27). According to the Examiner, the inclusion of “**optical and electromagnetic** in the definition of **both** storage and signal medium makes the separation ineffective.” Ans. 4. The Examiner finds that the term “tangible” in the Specification does not on its own define statutory subject matter. *Id.*

Appellant argues, in view of the Specification and ordinary skill in the art, the phrase excludes transitory signals. App. Br. 8–9; Reply Br. 2 (citing Spec. ¶¶ 7, 8). According to Appellant, the Specification defines a computer readable storage medium to be a tangible medium for storing computer programs and a tangible medium is a material, physical medium, and thus is not to be construed as applying to a transitory signal. App. Br. 8

We do not agree that the disputed term is limited by the Specification as argued by Appellant because the Specification uses nonlimiting language to describe the disputed term: “may be, for example, but not limited to . . . (a non-exhaustive list).” Spec. ¶ 7. We are not persuaded of error and instead agree with the Examiner’s findings because neither the claims nor the Specification defines “computer readable storage medium” so as to exclude transitory media. Consequently, the claimed medium encompasses transitory media, which is not patent eligible. *See Ex parte Mewherter*, 107 USPQ2d 1857 (PTAB 2013) (precedential); *see also In re Nuijten*, 500 F.3d 1346, 1356–57 (Fed. Cir. 2007); and U.S. Patent & Trademark Office, Subject Matter Eligibility of Computer Readable Media, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010).

In view of the above, we sustain the rejection of claim 14, and dependent claims 15–20 as these claims are not argued separately by Appellant.

CONCLUSION

Claims Rejected	Basis	Affirmed	Reversed
1–20	35 U.S.C. § 101	1–20	
14–20	35 U.S.C. § 101	14–20	
Overall Outcome		1–20	

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED