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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MOHIT GARG, VINEET GUPTA, PAWAN GOYAL, ANKUR
JAIN, and VIVEK KUMAR

Appeal 2020-003010
Application 14/151,300
Technology Center 3600

Before ROBERT E. NAPPI, ELENI MANTIS MERCADER, and
JOYCE CRAIG, *Administrative Patent Judges*.

CRAIG, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the
Examiner’s decision to reject claims 1–20. *See* Non-Final Act. 1. We have
jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ We use the word “Appellant” to refer to “applicant” as defined in
37 C.F.R. § 1.42. Appellant identifies the real party in interest as Adobe Inc.
Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claims are directed to providing digital content publishing guidance based on trending emotions. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A computer implemented method, comprising:

receiving, from a user, a first unpublished social networking post designated for publishing in an online community;

determining a topic of the first unpublished social networking post;

determining an emotion associated with the first unpublished social networking post;

identifying a plurality of trending entities that have previously been published to the online community;

segmenting the trending entities to further identify a subset of trending entities that relate to the topic of the first unpublished social networking post, and that have previously been published to the online community;

determining a trending emotion within the subset of trending entities;

establishing a first emotion similarity measure based on a first initial comparison of (a) the emotion associated with the first unpublished social networking post and (b) the trending emotion;

generating a recommendation with respect to publication of the first unpublished social networking post to the online community based on a subsequent comparison of the first emotion similarity measure to a pre-established similarity threshold; and

causing display of the recommendation to the user while the first unpublished social networking post remains unpublished.

Appeal Br. 40 (Claims Appendix).

REJECTIONS

Claims 1–20 stand rejected under 35 U.S.C. § 112(a) as lacking written description support. Non-Final Act. 5–12.

Claims 1–20 stand rejected under 35 U.S.C. § 112(b) for indefiniteness. Non-Final Act. 12–13.

Claims 1–20 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to patent-ineligible subject matter. Non-Final Act. 13–18.

Claims 1, 5–10, 14, 17, and 18 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Meijer et al. (US 2010/0082751 A1, published Apr. 1, 2010) (“Meijer”) and Goeldi (US 2010/0121707 A1, published May 13, 2010) (“Goeldi”). Non-Final Act. 18–24.

Claims 2, 11–13, 15, and 19 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Meijer, Goeldi, and Chen et al. (US 2013/0066716 A1, published Mar. 14, 2013) (“Chen”). Non-Final Act. 25–29.

Claims 3 and 16 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Meijer, Goeldi, and Moon et al. (US 8,401,248 B1, issued Mar. 19, 2013) (“Moon”). Non-Final Act. 29.

Claim 4 stands rejected under 35 U.S.C. § 103 as unpatentable over the combination of Meijer, Goeldi, Moon, and Oishi et al. (US 2015/0036930 A1, published Feb. 5, 2015) (“Oishi”). Non-Final Act. 30.

Claim 20 stands rejected under 35 U.S.C. § 103 as unpatentable over the combination of Meijer, Goeldi, Chen, Pantel et al. (US 2013/0159219 A1, published June 20, 2013) (“Pantel”), and Oishi. Non-Final Act. 30–37.

ANALYSIS

Rejection of Claims 1–20 Under 35 U.S.C. § 112(a)

The Examiner rejected claims 1–20 as failing to comply with the written-description requirement of § 112 because the originally filed Specification lacks support for the limitations “*determining an emotion associated with the [first] unpublished [social networking] post,*” “*segmenting the . . . trending entities to . . . identify,*” and “*determining a trending emotion within . . . subset of trending entities.*” Non-Final Act. 5–12. According to the Examiner, with regard to the two limitations that require determining an emotion, “Appellant’s disclosure fails to disclose how to determine an emotion associated with purely non-textual posts.” Ans. 5. The Examiner also found the Specification does not disclose “how to segment photos and videos based on ontological classification, psychographic classification, or ‘any other suitable segmentation’” (*id.* at 8) or “how one would segment such photos and videos as entities” (*id.* at 9).

Appellant argues that “the Specification expressly discloses “information extraction . . . using, for instance, optical character recognition (OCR) **and/or other conventional image processing techniques** to extract information captured in . . . photo or video frames.” Reply Br. 3. Appellant further states that “[i]ndependent Claim 1 is considered representative of Claims 1-20.” Appeal Br. 7.

“The test for the sufficiency of the written description ‘is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.’” *Vasudevan Software, Inc, v. MicroStrategy, Inc.*, 782 F.3d

671, 682 (Fed. Cir. 2015) (citing *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc)).

Appellant has persuaded us that the Examiner erred. The Specification reasonably conveys to those skilled in the art that the disclosed techniques can be used to process both textual entities as well as entities that, on their own, lack textual information. *See* Reply Br. 3 (citing Spec. ¶ 35). We are persuaded that, at the time of the invention, the inventors possessed techniques for determining an emotion associated with purely non-textual posts and trending entities. We are also persuaded that, at the time of the invention, the inventors possessed techniques for segmenting trending entities using conventional image processing techniques to extract information captured in photo or video frames. *Id.* at 4 (citing Spec. ¶ 35); Appeal Br. 13 (citing Spec. ¶ 40).

For these reasons, on the record before us, we are persuaded the Examiner erred, and we reverse the written description rejection under 35 U.S.C. § 112 (a) of claim 1 and grouped claims 2–20.

Rejection of Claims 1–20 Under 35 U.S.C. § 112(b)

The Examiner rejected claims 1–20 as indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor regards as the invention. Non-Final Act. 12. According to the Examiner, “it is unclear as to what the phrase ‘determining an emotion associated with the first unpublished ... post’ means in the context of each independent claim receiving the ‘first unpublished ... post’ from a user. *Id.* In the Examiner’s view, “a question of law exists regarding whether an emotion can be determined from an unpublished post received

from a user when the user chooses not to include any indicia (words) associated with an emotion, such as when an unpublished post is purely factual.” *Id.*

Appellant argues that the Specification describes multiple analytical techniques for “determining an emotion,” and clarifies how to determine an emotion of an unpublished social networking post. Reply Br. 5 (citing Spec. ¶ 36). With regard to a post that is devoid of emotion, Appellant argues that such post can be represented by an emotion vector comprising a plurality of bits, each indicating zero emotion associated with the designated emotions of the given emotion model. *Id.*

The PTAB applies the indefiniteness test approved by *In re Packard*, 751 F.3d 1307 (Fed. Cir. 2014) (per curiam): “[a] claim is indefinite when it contains words or phrases whose meaning is unclear,” and “claims are required to be cast in clear—as opposed to ambiguous, vague, indefinite—terms.” *See Packard*, 751 F.3d at 1310, 1313.

[W]hen the USPTO has initially issued a well-grounded rejection that identifies ways in which language in a claim is ambiguous, vague, incoherent, opaque, or otherwise unclear in describing and defining the claimed invention, and thereafter the applicant fails to provide a satisfactory response, the USPTO can properly reject the claim as failing to meet the statutory requirements of § 112(b).

Packard, 751 F.3d at 1311.

We agree with Appellant that the Examiner has not identified ways that the language in representative claim 1 is ambiguous, vague, incoherent, opaque, or otherwise unclear in describing and defining the claimed invention. Appellant has persuaded us that making the determination that a post is devoid of emotion is still “determining an emotion” of the post. *See*

Appeal Br. 17. We agree with Appellant that an ordinarily-skilled artisan would have understood how to make a determination, using the specific techniques disclosed in the Specification, that a post contains no emotion. *See* Reply Br. 6.

For these reasons, on the record before us, we are persuaded the Examiner erred, and we reverse the indefiniteness rejection under 35 U.S.C. § 112 (b) of independent claim 1 and grouped claims 2–20.

Rejection of Claims 1–20 Under 35 U.S.C. § 101

Appellant argues that the Examiner’s rejection of claim 1 under 35 U.S.C. § 101 as directed to patent-ineligible subject matter is in error. To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv). Appellant argues claims 1–20 as a group, and designates claim 1 as representative of the group. Appeal Br. 20. Thus, we decide the § 101 rejection of claims 1–20 based on representative claim 1.

Principles of Law

“Whether a claim is drawn to patent-eligible subject matter is an issue of law that we review de novo.” *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1331 (Fed. Cir. 2010).

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g., Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court’s two-part framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, i.e., the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Court held that “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an

attempt to patent a mathematical formula.”). Having said that, the Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citation omitted) (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 part 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 (quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019), incorporated in the Manual of Patent Examination Procedure (“MPEP”) in sections 2103 through 2106.07(c) (“2019 Revised Guidance”).²

² In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the “October

Under the 2019 Revised Guidance and the October 2019 Update, we first look to whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) (“Step 2A, Prong One”); and

(2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) (“Step 2A, Prong Two”).³

2019 Revised Guidance, 84 Fed. Reg. at 52–55.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, 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.

2019 Revised Guidance, 84 Fed. Reg. at 52–56; MPEP § 2106.04.

2019 Update”) (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

³ This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Revised Guidance - Section III(A)(2), 84 Fed. Reg. 54–55.

Prima Facie Case

Appellant argues that the Examiner failed to make a prima facie case of subject matter ineligibility by overgeneralizing and ignoring certain claim elements. Appeal Br. 22.

We disagree. The procedural burden of establishing a prima facie case is carried when the rejection satisfies the requirements of 35 U.S.C. § 132. *In re Jung*, 637 F.3d 1356, 1363 (Fed. Cir. 2011). “Section 132 is violated 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). That is, the Examiner must set forth the rejection's statutory basis “in a sufficiently articulate and informative manner as to meet the notice requirement of § 132.” *Jung*, 637 F.3d at 1363.

This is not a case where the “rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.” *Id.* at 1362. Rather, the Examiner has provided a rationale that identifies the abstract idea recited in the claim and why it is considered an exception. *See* Non-Final Act. 13–18. And Appellant clearly identifies the abstract idea identified by the Examiner. *See, e.g.*, Appeal Br. 22.

Accordingly, we are not persuaded that the Examiner has failed to set forth a prima facie case of patent ineligibility for representative claim 1.

Step 1

Claim 1, as a method claim, falls within the process category of § 101. *See* Office Guidance, 84 Fed. Reg. at 53–54 (citing MPEP §§ 2106.03, 2106.06).

Step 2A(i): Does the Claim Recite a Judicial Exception?

The Examiner determined that claim 1 recites providing a user with guidance or a recommendation for marketing purposes based on expressed human/user emotions and, therefore, claim 1 recites a certain method of organizing human activity. Non-Final Act. 14.

The Examiner identified all of the recited steps as part of the abstract idea, except steps of “receiving” and “causing display, a memory device, and a processor that is operatively coupled to the memory device, wherein the processor is configured to execute instructions stored in the memory device (Claims 14–19), and a non-transient computer program product encoded with instructions executable by one or more processors to cause a process to be carried out (Claim 20).” *Id.*

Consistent with Appellant’s description of the claims (Spec. ¶¶ 15–20), we find that the limitations identified by the Examiner as abstract describe marketing activities that are fairly characterized as commercial interactions, which fall into the “certain methods of organizing human activity” category of abstract ideas. *See* 84 Fed. Reg. at 52.

Claim 1 also recites steps that can be performed in the human mind or with pen and paper. *See* Ans. 13–14. The 2019 Revised Guidance explains that “mental processes” include acts that people can perform in their minds or using pen and paper, even if the claim recites that a generic computer component performs the acts. *See* Guidance, 84 Fed. Reg. at 52 n.14 (“If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind.”); *see also Intellectual Ventures I LLC v. Symantec*

Corp., 838 F.3d 1307, 1318 (Fed. Cir. 2016) (“[W]ith the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.”), quoted in 2019 Revised Guidance, 84 Fed. Reg. at 52 n.14.

In particular, under the 2019 Revised Guidance, mental processes include concepts performed in the human mind or practically with pen and paper. *See* 2019 Revised Guidance. Mental processes include observations, evaluations, judgments, and opinions. Here, the “determining” steps recite at a high level what is determined, but do not recite how the determinations are made. Thus, the “determining” steps are broad enough to encompass mental processes such as observations, evaluations, judgments, and opinions. Similarly, “identifying a plurality of trending entities” involves observation, evaluation, judgment, and/or opinions. The “segmenting” step recites at a high level what is segmented, but does not recite how the segmenting is achieved. Thus, the “segmenting” step is broad enough to encompass mental processes such as observations, evaluations, judgments, and opinions. “Establishing a first emotion similarity measure” and “generating a recommendation” are also broad enough to encompass mental processes such as observations, evaluations, judgments, and opinions.

Because we agree with the Examiner that the claim recites an abstract idea, we proceed to Prong Two of Step 2A to determine if the idea is integrated into a practical application, in which case the claim as a whole would not be “directed to” merely an abstract idea.

Step 2A(ii): Judicial Exception Integrated into a Practical Application?

We next determine whether the recited judicial exception is integrated into a practical application of the exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.

We use the term “additional elements” for claim features, limitations, or steps that the claim recites beyond the identified judicial exception. *See* Revised Guidance at 55 n.24. In claim 1, the additional elements include the “computer” recited in the preamble, the “receiving” step, and the “causing display” step.

To integrate the exception into a practical application, the additional claim elements must, for example, improve the functioning of a computer or any other technology or technical field (*see* MPEP § 2106.05(a)), apply the judicial exception with a particular machine (*see* MPEP § 2106.05(b)), affect a transformation or reduction of a particular article to a different state or thing (*see* MPEP § 2106.05(c)), or apply or use the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment (*see* MPEP § 2106.05(e)). *See* 2019 Revised Guidance.

The Examiner determined that none of the additional limitations is sufficient to amount to significantly more than the judicial exception. Non-Final Act 14. The Examiner determined that Appellant’s Specification describes that “computing systems can be implemented with any typical computing technology” and, therefore, the recited “computer” is not an

additional element sufficient to amount to “significantly more” than the abstract idea. Ans. 14–15 (citing Spec. ¶ 23). The Examiner also determined that the “receiving” and “causing display” steps do not integrate the abstract mental processes into a practical application. *See* Ans. 12.

Appellant argues that “causing display of the recommendation to the user while the first unpublished social networking post remains unpublished” reflects an improvement in the functioning of a computer, or an improvement to other technology or a technical field. Appeal Br. 24; Reply Br. 7.

Appellant’s argument is not persuasive. The additional element directed to causing display of a recommendation to the user while the first unpublished social networking post remains unpublished amounts to insignificant extra-solution activity. *See* 2019 Revised Guidance, 84 Fed. Reg. 55 (citing MPEP § 2106.05(g)); *see also Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354–55 (Fed. Cir. 2016) (“merely presenting the results of abstract processes of collecting and analyzing information, without more . . . is abstract as an ancillary part of such collection and analysis.”). The recited “causing display” step may be also be viewed as insignificant extra-solution activity because no further details are recited regarding how the display of the recommendation is caused. Moreover, the improvement that Appellant describes is to the abstract idea, not to a computer or other technology. *See* Ans. 13; Appeal Br. 25 (“[T]his provides the author of the post with insight into how well the emotion of the unpublished post matches the emotion within the community to which the post may be published. This emotionally-tailored insight helps the publisher connect with and/or otherwise impact the target audience.”)

Appellant’s claim 1 is unlike the technology-based integrations cited by Appellant. *See id.* For example, in *McRO*, the patent-eligible claim focused on a specific asserted improvement in computer animation. *McRO, Inc. v. Bandai Namco Games Am.*, 837 F.3d 1299 (Fed. Cir. 2016). The claims in *McRO* recited a “specific . . . improvement in computer animation” using “unconventional rules that relate[d] sub sequences of phonemes, timings, and morph weight sets.” *McRO*, 837 F.3d at 1302–03, 1307–08, 1314–15. In *McRO*, “the incorporation of the claimed rules, not the use of the computer,” improved an existing technological process. *Id.* at 1314. Appellant does not direct us to any evidence that the claimed steps correspond to unconventional rules. Nor does Appellant identify how claim 1 improves an existing technological process. *See Alice*, 134 S. Ct. at 2358 (explaining that “the claims in *Diehr* were patent eligible because they improved an existing technological process”). Rather, claim 1 concerns a “computer implemented method” for generating a recommendation with respect to publication of a social networking post. Appeal Br. 23.

Appellant’s further argument that “[c]laim 1 describes a specific way of providing content publication guidance” is not persuasive. *See* Appeal Br. 25 (citing *McRO*, 837 F.3d at 1315). Here, instead of incorporating specific, limited rules or reciting particular, specific ways of displaying information, claim 1 recites a series of broadly worded, result-oriented functions without meaningfully limiting how the claimed invention performs those functions.

Considering claim 1 as a whole, then, Appellant’s invention lacks a technical solution to a technical problem like the claims in *McRO*. Claim 1 as a whole merely uses instructions to implement the abstract idea on a computer or, alternatively, merely uses a computer as a tool to perform the

abstract idea. Here, the additional limitation(s) do not integrate the judicial exception into a practical application. More particularly, claim 1 does not recite (i) an improvement to the functionality of a computer or other technology or technical field; (ii) a “particular machine” to apply or use the judicial exception; (iii) a particular transformation of an article to a different thing or state; or (iv) any other meaningful limitation. *See* 84 Fed. Reg. at 55. Rather, claim 1 recites an abstract ideas as identified in Step 2A(i), *supra*, and none of the limitations integrates the judicial exception into a practical application.

Therefore, because the abstract idea is not integrated into a practical application, we conclude that the claim is directed to the judicial exception.
Step 2B — “Inventive Concept” or “Significantly More”

If a claim is directed to a patent-ineligible concept, as we conclude above, we proceed to the “inventive concept” step. For Step 2B we must “look with more specificity at what the claim elements add, in order to determine ‘whether they identify an “inventive concept” in the application of the ineligible subject matter’ to which the claim is directed.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016)). We look to see whether there are any “additional features” in the claims that constitute an “inventive concept,” thereby rendering the claims eligible for patenting even if they are directed to an abstract idea. *Alice*, 573 U.S. at 221. Those “additional features” must be more than “well-understood, routine, conventional activity.” *Mayo*, 566 U.S. at 79.

The Examiner determined that the additional elements in claim 1 are well-understood, routine, and conventional. For example, the Examiner

found that “**receiving** or **transmitting** data over a network, e.g., using the Internet to gather data” has been recognized as well-understood, routine, and conventional functions. Ans. 14.

We agree with the Examiner. Courts have held the receipt and display of data, as recited in particular claims, to be steps that are well-understood, routine, and conventional functions of a general purpose computer. See MPEP § 2106(d) (citing *Versata*, 793 F.3d at 1334 and *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015)) (supporting that courts have recognized the computer functions of storing and retrieving information in memory as well-understood, routine, and conventional functions of a computer); *see also, e.g., Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (“[T]he claims’ invocation of computers, networks, and displays does not transform the claimed subject matter into patent-eligible applications. The claims at issue do not require any nonconventional computer, network, or display components, or even a ‘non-conventional and non-generic arrangement of known, conventional pieces,’ but merely call for performance of the claimed information collection, analysis, and display functions ‘on a set of generic computer components’ and display devices. *Bascom [Global Internet Servs., Inc. v. AT&T Mobility, LLC]*, 827 F.3d [1341,] 1349-52 [Fed. Cir. 2016].”).

Thus, providing the would-be publisher/user with a recommendation (*see* Spec. ¶ 24) is well-understood, routine, and conventional. While the Specification describes the layout of information on a display (*see* Spec. Fig. 6b, ¶ 46), it provides no detail describing the technical manner in which the recommendation is displayed. Because the Specification lacks any technical details as to how such information is displayed, the Specification makes

clear that “causing display” of information, as recited in claim 1, is conventional.

Appellant does not direct our attention to anything in the Specification that indicates the computer components perform anything other than well-understood, routine, and conventional functions, such as receiving data, looking up data in a database, attempting to execute commands, and storing data in a database. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive”); *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 614 (Fed. Cir. 2016) (server that receives data, extracts classification information from the received data, and stores the digital images insufficient to add an inventive concept); *Alice*, 573 U.S. at 225–26 (receiving, storing, sending information over networks insufficient to add an inventive concept).

Because the Specification describes the additional elements in general terms, without describing the particulars, we conclude the claim limitations may be broadly but reasonably construed as reciting conventional computer components and techniques, particularly in light of Appellant’s Specification, as cited above. *See Berkheimer Memo*⁴ § III.A.1; Spec. ¶¶ 24–46. We conclude claim 1 does not have an inventive concept because the

⁴ “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)” at 3 (Apr. 19, 2018) (explaining that a specification that describes additional elements “in a manner that indicates that the additional elements are sufficiently well-known that the specification does not need to describe the particulars of such additional elements to satisfy 35 U.S.C. § 112(a)” can show that the elements are well understood, routine, and conventional).

claim, in essence, merely recites various computer-based elements along with no more than mere instructions to implement the identified abstract idea using the computer-based elements.

Because the claims are directed to an abstract idea, without significantly more, we sustain the Examiner's § 101 rejection of independent claim 1 and grouped claims 2–20, not argued separately with particularity.

Rejection of Claims 1–20 Under 35 U.S.C. § 103

We have reviewed the § 103 rejections of claims 1–20 in light of Appellant's arguments that the Examiner erred. We have considered in this decision only those arguments Appellant actually raised in the Briefs. Any other arguments Appellant could have made, but chose not to make, in the Briefs are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). Appellant's arguments are not persuasive of error. We agree with and adopt as our own the Examiner's findings of facts and conclusions as set forth in the Answer and in the Action from which this appeal was taken. We provide the following explanation for emphasis.

Claims 1–19

Appellant contends the cited portions of Meijer and Goeldi do not teach or suggest segmenting trending entities, as recited in representative claim 1. Appeal Br. 30. In particular, Appellant argues that Goeldi does not teach segmenting trending entities to identify a subset of trending entities “that relate to the topic of the first unpublished social networking post,” as claim 1 requires. *Id.* at 32.

We are not persuaded that the Examiner erred. Appellant attacks Goeldi individually, even though the Examiner relied on the combination of

Meijer and Goeldi in rejecting claim 1. *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)) (“The test for obviousness is what the combined teachings of the references would have suggested to those having ordinary skill in the art.”). The test for obviousness is not whether the claimed invention is expressly suggested in any one or all of the references, but whether the claimed subject matter would have been obvious to those of ordinary skill in the art in light of the combined teachings of those references. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

Here, the Examiner found that Meijer teaches a first unpublished social networking post. Non-Final Act. 18 (citing Meijer ¶ 7 (“Message compilation can be analyzed as a user enters text or other data into a message.”)). The Examiner also found that Meijer teaches determining a topic of, and an emotion associated with, the first unpublished social networking post. *Id.* at 19 (citing Meijer ¶¶ 7, 31, 59–63, and 75)). The Examiner relied on Goeldi as teaching segmenting the trending entities to identify a subset of trending entities that relate to a topic of interest and that have previously been published to the online community. Non-Final Act. 21 (citing Goeldi ¶¶ 50, 68, 73, 82); Ans. 16.

Appellant has not addressed the combined teachings of Meijer and Goeldi. *See* Appeal Br. 32. Appellant, therefore, has not persuaded us that it would not have been obvious to an artisan of ordinary skill to incorporate the posted-message techniques for segmenting, taught in Goeldi, for use in monitoring and analyzing unpublished messages, as taught in Meijer. *See* Non-Final Act. 22. Moreover, the Examiner provided “articulated reasoning with some rational underpinning to support the legal conclusion of

obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006); Non-Final Act. 22.

Accordingly, we sustain the Examiner’s § 103 rejection of independent claim 1, as well as the Examiner’s § 103 rejection of claims 5–10, 14, 17, and 18, argued as a group with claim 1. *See* Appeal Br. 29. We also sustain the Examiner’s § 103 rejections of claims 2–4, 11–13, 15, 16, and 19, which Appellant argues are patentable for the same reasons discussed above for claim 1. *See id.* at 33–34.

Claim 20

Appellant argues that Pantel does not teach or suggest determining an emotion associated with an unpublished post, as recited in independent claim 20. Appeal Br. 36. In Appellant’s view, “[t]he fact that Pantel uses feature vectors to represent microblog posts does not constitute a teaching to determine the emotion of an unpublished post based on the particular distance measurements that are defined” in claim 20. *Id.* at 37.

We are persuaded that the Examiner erred. Nowhere has the Examiner clearly identified where the prior art teaches or suggests “determining a trending emotion within the subset of trending entities by (a) measuring a distance between (i) each of the trending entities in the subset, and (ii) each of the n primary emotions,” as recited in claim 20. *See* Appeal Br. 38. The Examiner found that paragraphs 28, 49, and 57 of Pantel teach the disputed limitation. Ans. 18. Although the Examiner explained Pantel’s teachings, the Examiner did not clearly map those teachings to the disputed limitation. *See id.*

Based on the record before us, we find that the Examiner has not properly established factual determinations and articulated reasoning with a

rational underpinning to support the legal conclusion of obviousness for claim 20. Because we find it dispositive that the Examiner has not shown by a preponderance of evidence that the cited prior art teaches or reasonably suggests the disputed “determining a trending emotion” limitation, we do not address other issues raised by Appellant’s arguments related to these claims. *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (finding an administrative agency is at liberty to reach a decision based on “a single dispositive issue”).

Accordingly, we do not sustain the Examiner’s § 103 rejection of independent claim 20.

DECISION

We affirm the Examiner’s decision rejecting claims 1–20. Because we affirm at least one ground of rejection with respect to each claim on appeal, the Examiner’s decision rejecting claims 1–20 is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	112(a)	Lack of Written Description		1–20
1–20	112(b)	Indefiniteness		1–20
1–20	101	Eligibility	1–20	
1, 5–10, 14, 17, 18	103	Meijer, Goeldi	1, 5–10, 14, 17, 18	
2, 11–13, 15, 19	103	Meijer, Goeldi, Chen	2, 11–13, 15, 19	
3, 16	103	Meijer, Goeldi, Moon	3, 16	
4	103	Meijer, Goeldi, Moon, Oishi	4	

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
20	103	Meijer, Goeldi, Chen, Pantel, Oishi		20
Overall Outcome:			1-20	1-20

TIME PERIOD FOR RESPONSE

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