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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* ABDUR R. CHOWDHURY, GREGORY S. PASS,  
KULRAJ SIDHU, and TRAVIS WALKER

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Appeal 2018-001677  
Application 12/574,437  
Technology Center 2100

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Before CARL W. WHITEHEAD JR., HUNG H. BUI, and  
DANIEL J. GALLIGAN, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–22. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.<sup>2</sup>

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<sup>1</sup> 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 Facebook, Inc. Appeal Br. 2.

<sup>2</sup> Our Decision refers to Appellant's Appeal Brief filed July 11, 2017 (“Appeal Br.”); Appellant's Reply Brief filed December 4, 2017 (“Reply Br.”); Non-Final Office Action mailed January 10, 2017 (“Non-Final Act.”); and Examiner's Answer mailed October 4, 2017 (“Ans.”).

### CLAIMED SUBJECT MATTER

Claims 1, 14, and 20 are independent claims. Claim 1, reproduced below, is illustrative of the claimed subject matter.

1. A method comprising:
  - accessing information associated with a user;
  - identifying, using the accessed information, one or more search topics personalized for the user;
  - determining that a search topic of the one or more search topics personalized for the user is popular when a current volume of search queries related to the search topic exceeds a baseline volume of search queries related to the search topic by at least a threshold, wherein the threshold is based on a category associated with the search topic;
  - in response to determining that the search topic is popular, identifying, from among a plurality of electronic sources of published information, multiple electronic sources that include content that matches the popular search topic and that were published less than a threshold period of time prior to the search topic becoming popular;
  - determining, using at least one processor, a summary of the content from the multiple identified electronic sources that include content that matches the popular search topic; and
  - presenting, to the user, the determined summary of the content from the multiple identified electronic sources as a reason that the search topic is popular.

### REFERENCES

Name	Reference	Date
Diab et al.	US 2006/0230021 A1	Oct. 12, 2006
Yoo et al.	US 7,146,416 B1	Dec. 5, 2006
Bharat et al.	US 8,090,717 B1	Jan. 3, 2012
Columbia Newsblaster: Summarizing All the News on the Web (03/25/2005 - 03/28/2005) ( <a href="http://newsblaster.cs.columbia.edu/archives/2005-03-28-08-02-11/web/index.html">http://newsblaster.cs.columbia.edu/archives/2005-03-28-08-02-11/web/index.html</a> ) (“Newsblaster”)		

### REJECTIONS<sup>3</sup>

Claims 13 and 16 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. Non-Final Act. 4–5.

Claims 1–22 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Non-Final Act. 5–7.

Claims 1–7 and 9–22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo, Bharat, and Newsblaster. Non-Final Act. 8–14.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo, Bharat, Newsblaster, and Diab. Non-Final Act. 14–15.

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<sup>3</sup> The Non-Final Action states that “Claims 21–40 of co-pending application 13/620,237 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1–22 of instant application.” Non-Final Act. 4. Because the Examiner has not rejected the claims of the instant application on double patenting grounds, we do not consider this to be a rejection before us on appeal.

## ANALYSIS

### *Rejection under 35 U.S.C. § 112, First Paragraph*

Appellant acknowledges the rejection of claims 13 and 16 under 35 U.S.C. § 112, first paragraph and intends to amend these claims upon a decision by the Board addressing the § 101 and § 103 rejections. Appeal Br. 9 n.1. Because Appellant does not contest this rejection, we sustain it.

### *Rejection under 35 U.S.C. § 101*

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 Supreme Court has long interpreted 35 U.S.C. § 101 to include the following implicit exceptions: laws of nature, natural phenomena, and abstract ideas. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In *Alice*, the Supreme Court set forth an analytical “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* at 217. 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.

*USPTO January 7, 2019 Revised Section 101 Memorandum*

The USPTO has published revised guidance on the application of § 101. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Guidance”). Under the 2019 Guidance, 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); 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, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

*Discussion*

For the § 101 rejection, Appellant argues claims 1–22 as a group, focusing on subject matter common to independent claims 1, 14, and 20. *See* Appeal Br. 10–22. We select independent claim 1 as representative of Appellant’s arguments for the § 101 rejection of claims 1–22. *See* 37 C.F.R. § 41.37(c)(1)(iv).

*Step 1*

Section 101 provides that “[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.” 35 U.S.C. § 101. Independent claim 1 recites a method and, thus, is directed to a statutory class of invention within 35 U.S.C. § 101, i.e., a process.

*Step 2A, Prong One*

Under Step 2A of the 2019 Guidance, we must determine whether claim 1, being directed to a statutory class of invention, nonetheless falls within a judicial exception.

The Examiner determines that independent claim 1 recites a process for “collecting information, analyzing it, and displaying certain results of the collection and analysis,” which the Examiner likens to the abstract idea identified in *Electric Power Group, LLC, v. Alstom*, 830 F.3d 1350 (Fed. Cir. 2016). Non-Final Act. 6; *see also* Ans. 3. Therefore, we understand the identified abstract idea to be in the category of mental processes. *See* October 2019 Patent Eligibility Guidance Update (“October 2019 Update”), 7 (identifying the abstract idea of *Electric Power Group* in the category of “mental processes”), referenced at 84 Fed. Reg. 55942–43 (October 18, 2019).

Appellant argues the Examiner “fails to properly identify an abstract idea that applies to the claims” and “over-generalizes the claims to match the alleged abstract idea without regard to the actual claim language.” Appeal Br. 10–11. We disagree.

The Office has explained that “claims do recite a mental process when they contain limitations that can practically be performed in the human mind, including for example, observations, evaluations, judgments, and opinions” and cites as an example “a claim to ‘collecting information, analyzing it, and displaying certain results of the collection and analysis,’ where the data analysis steps are recited at a high level of generality such that they could practically be performed in the human mind.” October 2019 Update, 7 (citing *Electric Power Group*). Independent claim 1 recites such subject matter.

Claim 1 recites (1) “accessing information associated with a user” and (2) “identifying, using the accessed information, one or more search topics personalized for the user.” We agree with the Examiner that these limitations describe collecting information. *See* Ans. 3. Claim 1 further recites the following three steps:

[(3)] determining that a search topic of the one or more search topics personalized for the user is popular when a current volume of search queries related to the search topic exceeds a baseline volume of search queries related to the search topic by at least a threshold, wherein the threshold is based on a category associated with the search topic;

[(4)] in response to determining that the search topic is popular, identifying, from among a plurality of electronic sources of published information, multiple electronic sources that include content that matches the popular search topic and that were published less than a threshold period of time prior to the search topic becoming popular;

[(5)] determining . . . a summary of the content from the multiple identified electronic sources that include content that matches the popular search topic.

These are “data analysis steps [that] are recited at a high level of generality such that they could practically be performed in the human mind.” *See* October 2019 Update, 7. In particular, step (3) recites a determination of popularity based on comparing one quantity (“a current volume of search queries” less “a threshold”) to another quantity (“a baseline volume of search queries”), which is an evaluation that can practically be performed in the human mind by simply subtracting the threshold from the current volume and comparing that amount to the baseline to see which is greater. Step (4) recites at a high level of generality a step of identifying sources of information that include particular information, i.e., “content that matches the popular search topic and that were published less than a threshold period of time prior to the search topic becoming popular.” Locating information by content is a mental process that humans have performed in libraries using card catalogs for years, and narrowing the results to a specific time period involves a mental evaluation to identify only content with certain dates. Step (5) recites “determining . . . a summary of the [identified] content,” which encompasses a mental evaluation of the content.

Finally, claim 1 recites (6) “presenting, to the user, the determined summary of the content from the multiple identified electronic sources as a reason that the search topic is popular.” This limitation involves merely displaying the results of the analysis, which is also encompassed within the category of mental processes. *See* October 2019 Update, 7.

Appellant argues that steps (3)–(5) are “not subsumed by the general concepts of ‘collecting information, analyzing it, and displaying certain results of the collection and analysis.’” Appeal Br. 17–18. Appellant also argues that the Examiner oversimplifies the claim by ignoring particular

claim terms, such as “current volume of search queries” and “baseline volume of search queries.” Reply Br. 4. For the reasons explained above, we disagree, and we find that these limitations recite mental processes.

Appellant also argues that the Examiner’s Answer does not explain how step (5)—“determining . . . a summary of the content”—corresponds to an abstract idea. Reply Br. 5. We disagree.

In the Action from which this Appeal is taken, the Examiner finds that “enabling presentation, to the user, of the customizable *summary* of the web data related to the at least one topic” “corresponds to an abstract idea similar to the concepts that have been identified as abstract idea by the courts, such as (i) collecting information, analyzing it, and displaying certain results of the collection and analysis.” Non-Final Act. 6 (emphasis added). Thus, the Examiner identified the summary of information as part of the abstract idea. In the Answer, the Examiner explains that “generating a summary from multiple electronic sources and presenting to the summary to the user” is directed to the recited abstract idea. Ans. 3. The Examiner further explains that “Claims 1, 14, 20 merely provide a summary of popular topic personalized for the user (such as personalized based on location, age, gender) without impos[ing] any meaningful limitation on the abstract idea.” Ans. 5. Thus, we disagree with Appellant’s assertion that “the alleged abstract idea fails to account for a significant claim limitation.” Reply Br. 5.

For the foregoing reasons, we determine claim 1 recites an abstract idea, namely a mental process, under Step 2A, Prong One of the 2019 Guidance.

*Step 2A, Prong Two*

Next, we determine whether the claim is directed to the abstract concept itself or whether it is instead directed to some technological implementation or application of, or improvement to, this concept, i.e., integrated into a practical application. *See, e.g., Alice*, 573 U.S. at 223 (discussing *Diamond v. Diehr*, 450 U.S. 175 (1981)).

Appellant argues that “the pending claims provide a ‘specific technical solution’ to a technical problem” and that “it is the ‘ordered combination’ of all elements that results in a unique way of providing a user with a summary formed from an extensive analysis that identifies a personalized topic for a user, when the topic is popular, and why the topic is popular.” Appeal Br. 21 (citing *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1352 (Fed. Cir. 2016)). According to Appellant, “the independent claims recite a concrete improvement to Internet-search technology.” Reply Br. 8. Contrary to Appellant’s assertion, however, none of the pending claims recites “Internet.” Even if the claims were directed in particular to Internet searches, we are not persuaded that this would integrate the claims into a practical application under Step 2A, Prong Two. Rather, all such a limitation would do “is to confine the abstract idea to a particular technological environment,” in this case, Internet searches. *See Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258–59 (Fed. Cir. 2016). “[M]erely limiting the field of use of the abstract idea to a particular existing technological environment does not” transform the claim into patent-eligible subject matter. *Id.* at 1259.

Appellant also argues that “the claimed process uses a combined order of specific rules that identifies, based on specific information associated with

a user, one or more search topics personalized for the user.” Appeal Br. 19. According to Appellant, “when looked at as a whole, the claims are directed to a patentable technological improvement over any existing techniques.” Appeal Br. 19–20. But as discussed above, the claims recite mental evaluations “at a high level of generality.” *See* October 2019 Update, 7. For example, Appellant asserts that,

once the search topic is identified as popular, the claimed process uses a combined order of specific rules to identify multiple electronic sources that include content that matches the popular search topic and that were published less than a threshold period of time prior to the search topic becoming popular, determine a summary of the content, and present the summary to the user as a reason why the search topic is popular.

Appeal Br. 19. Claim 1, however, does not recite “specific rules” to identify multiple electronic sources. Rather, it recites “identifying, from among a plurality of electronic sources of published information, multiple electronic sources that include content that matches the popular search topic and that were published less than a threshold period of time prior to the search topic becoming popular.” Thus, the claim does not delineate a specific way to perform the identification. Rather, it recites the step of “identifying . . . multiple electronic sources” and lists two criteria of the identified electronic sources – that they “include content that matches the popular search topic” and that they “were published less than a threshold period of time prior to the search topic becoming popular.” How the identification is performed is not specified.

Accordingly, the claims are not directed to a specific asserted improvement in computer technological implementation or otherwise

integrated into a practical application and thus are directed to a judicial exception.

*Step 2B*

Next, we determine whether the claim includes additional elements that provide significantly more than the recited judicial exception, thereby providing an inventive concept. *Alice*, 573 U.S. at 218–219 (quoting *Mayo*, 566 U.S. at 72–73).

Claim 1 recites “determining, *using at least one processor*, a summary of the content.” Emphasis added. The Examiner determines that the “processor” of claim 1 is “recited at a high level of generality and . . . for performing the generic functions routinely used in computer applications.” Non-Final Act. 7. We agree that claim 1’s recitation of using a “processor” to perform the step of determining a summary does not confer patent-eligibility on the claimed subject matter. *See Alice*, 573 U.S. at 223 (“[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.”).

Appellant’s arguments for eligibility under this step of the analysis focus on the steps of the claim that we have already determined are directed to the abstract idea. *See Appeal Br.* 20–22. In particular, Appellant argues that “it is the ‘ordered combination’ of all elements that results in a unique way of providing a user with a summary formed from an extensive analysis that identifies a personalized topic for a user, when the topic is popular, and why the topic is popular.” *Appeal Br.* 21. This subject matter, however, is directed to the claimed mental process discussed above. Appellant also likens its claims to those in *BASCOM*. *See Appeal Br.* 20–22; *Reply Br.* 9–

10. Appellant argues that, “similar to *BASCOM*, the disclosed communication system enables a ‘more dynamic and efficient’ Internet-search system with an automatic summary.” Reply Br. 11 (*quoting BASCOM*, 827 F.3d at 1351). As discussed above, however, the present claims do not recite the “Internet” and thus are not so limited. Furthermore, in *BASCOM*, the Federal Circuit stated the following: “The claims do not merely recite the abstract idea of filtering content along with the requirement to perform it on the Internet, or to perform it on a set of generic computer components. *Such claims would not contain an inventive concept.*” 827 F.3d at 3150 (emphasis added). Thus, Appellant’s arguments that its claims improve “Internet” search technology are not commensurate in scope with the claims and do not persuade us that the claims recite significantly more than the abstract idea to provide an “inventive concept.”

#### *§ 101 Conclusion*

Accordingly, claim 1 does not recite patent-eligible subject matter; because claim 1 is representative and because Appellant does not put forward additional persuasive arguments for the remaining claims, we conclude that remaining claims 2–22 also do not recite patent-eligible subject matter.

#### *Rejection under 35 U.S.C. § 103*

Appellant contends the combination of Yoo, Bharat, and Newsblaster does not teach “identifying . . . multiple electronic sources that include content that matches the popular search topic and *that were published less than a threshold period of time prior to the search topic becoming popular,*”

as recited in independent claims 1, 14, and 20. Appeal Br. 24–26; Reply Br. 12–14. The Examiner relies on Newsblaster to teach narrowing a search query to yield results from a particular time frame. Non-Final Act. 10. For example, Newsblaster shows “Articles from 03/25/2005 to 03/28/2005.” Newsblaster 1.

Appellant argues “*Newsblaster* merely appears to teach providing a search result of news articles within a date range specified by a user in a user-[initiated] search.” Appeal Br. 25. In the Reply Brief, Appellant similarly argues that “*Newsblaster* discloses archived news articles for a specific time range,” and, according to Appellant, this is “a significantly different time period than the claimed ‘threshold period of time prior to the search topic becoming popular.’” Reply Br. 13. The Examiner, however, concludes that “[i]t would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Yoo with the teachings *Newsblaster* to include date range for query criteria in order to narrow the search results to the time frame of interest.” Non-Final Act. 10. Thus, the Examiner’s rejection is that the claimed subject matter would have been obvious to an artisan of ordinary skill based on *Newsblaster*’s teaching that a search may be narrowed to any period of time.

In view of this teaching, we are not persuaded that merely specifying different time periods by which to narrow search results would have been “uniquely challenging or difficult for one of ordinary skill in the art.” *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007).

Based on the foregoing, we are not persuaded the Examiner erred in concluding the subject matter of independent claims 1, 14, and 20 would

have been obvious based on the combined teachings of Yoo, Bharat, and Newsblaster. Therefore, we sustain the obviousness rejection of these claims as well as the obviousness rejections of dependent claims 2–13, 15–19, 21, and 22, for which Appellant does not present persuasive arguments. *See* Appeal Br. 26.

### CONCLUSION

In summary:

<b>Claim(s) Rejected</b>	<b>35 U.S.C. §</b>	<b>References/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
13, 16	112 ¶ 1	Written description	13, 16	
1–22	101	Eligibility	1–22	
1–7, 9–22	103(a)	Yoo, Bharat, Newsblaster	1–7, 9–22	
8	103(a)	Yoo, Bharat, Newsblaster, Diab	8	
<b>Overall Outcome</b>			1–22	

### 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