



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 14/566,181 | 12/10/2014 | Rishiraj Saha Roy | P4592-US | 4633 |
| 108982 | 7590 | 06/23/2020 | EXAMINER | |
| SBMC 116 W. Pacific Avenue Suite 200 Spokane, WA 99201 | | | ANDERSON, SCOTT C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3694 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 06/23/2020 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@sbmc-law.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RISHIRAJ SAHA ROY, J. GUNA PRASAAD,
AISHWARYA PADMAKUMAR and
PONNURANGAM KUMARAGURU

Appeal 2019-006255
Application 14/566,181
Technology Center 3600

Before CAROLYN D. THOMAS, CARL W. WHITEHEAD JR. and
BRADLEY W. BAUMEISTER, *Administrative Patent Judges*.

WHITEHEAD JR., *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Appellant² is appealing the final rejection of claims 1–20 under 35 U.S.C. § 134(a). Appeal Brief 3. Claims 1, 10 and 17 are independent. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

¹ Rather than reiterate Appellant’s arguments and the Examiner’s determinations, we refer to the Appeal Brief (filed May 1, 2019), the Final Action (mailed March 28, 2018) and the Answer (mailed June 25, 2019), for the respective details.

² We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies Adobe Incorporated as the real party in interest. Appeal Brief 3.

Introduction

According to Appellant, the invention is directed to “[t]echniques for linguistic personalization of messages for targeted campaigns.”

Specification ¶ 2.

*Representative Claim*³

Claim 1 is reproduced below for reference (bracketed step lettering added with italicizing):

1. A computer-implemented method for linguistically personalizing a textual message for one or more segments of a targeted campaign, the method comprising:
 - [a] *extracting*, by a computing device, *word dependencies between keywords and modifiers in a segment-specific text and a product-specific text*;
 - [b] *building*, by the computing device, *language models for the segment-specific text and the product-specific text*;
 - [c] *extracting*, by the computing device, *the modifiers from the product-specific text, the extracted modifiers being associated with a desired sentiment*;
 - [d] *identifying*, by the computing device, *transformation points in a message skeleton, the identified transformation points indicating the keywords that are candidates for modification*; and
 - [e] *inserting*, by the computing device, *one or more of the extracted modifiers to modify one or more of the identified keywords in the message skeleton, the inserting being effective to personalize the message skeleton to produce the personalized textual message for the segment associated with the segment-specific text*.

³ For the § 101 rejection, Appellant argues claims 1–20 as a group, focusing on subject matter common to independent claims 1, 10, and 17. See Appeal Brief 24. We select independent claim 1 as the representative claim. See 37 C.F.R. § 41.37(c)(1)(iv); see also Appeal Brief 16–17.

*Rejection on Appeal*⁴

Claims 1–20 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to patent-ineligible subject matter. Final Action 3–6.

PRINCIPLES OF LAW

A. Section 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 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*. *Alice* 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.”).

⁴ The 35 U.S.C. § 112(b) rejection of claims 1–20 was withdrawn by the Examiner. Answer 3.

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.*

B. USPTO Section 101 Guidance

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 (January 7, 2019) (“2019 Revised Guidance”).⁵ “All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance.” *Id.* at 51; *see also* October 2019 Update at 1.

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

⁵ 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 2019 Update”) (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

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”).⁶
2019 Revised Guidance 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 at 52–56.

ANALYSIS

The Examiner determines claims 1–20 are patent ineligible under 35 U.S.C. § 101. *See* Final Action 3; *see Alice*, 573 U.S. at 217 (describing the two-step framework “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts”).

We are not persuaded the Examiner’s rejection is in error. Unless otherwise indicated, we adopt the Examiner’s findings and conclusions as

⁶ 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 at 54–55.

our own. We add the following primarily for emphasis and clarification with respect to the Revised Guidance.

Step 2A—Prongs 1 and 2 identified in the 2019 Revised Guidance

Prong One

The Examiner determines in the Answer, after the publishing of the 2019 Revised Guidance, “the claims are directed to the ‘abstract idea of editing text’ and includes ‘collecting and analyzing information in order to produce a desirable information-based result.’” Answer 4 (citing Final Action 3).

The Specification discloses:

In an example implementation, a request is transmitted by a client to a service provider to linguistically personalize a textual message for one or more segments of a targeted campaign. The service provider extracts dependencies between keywords and modifiers, from one or more segment-specific texts and a product-specific text, to build language models for the one or more segment specific texts and the product specific text. The service provider extracts modifiers with a desired sentiment from the product specific text and identifies transformation points in a message skeleton. Then the service provider inserts one or more of the extracted modifiers to modify one or more keywords in the message skeleton to create a personalized message for each target segment of the targeted marketing campaign, and communicates the personalized messages to the client.

Specification ¶ 3.

The message skeleton is a basic version of the advertising message, typically without modifiers, that will be personalized for each segment. The message skeleton is evaluated to identify transformation points where keywords may be modified by the insertion of segment-specific modifiers. Extracted modifiers are then evaluated for insertion at the transformation points. If a modifier, which sufficiently expresses the desired sentiment in the language model of a segment, is found, the modifier is

inserted to modify a keyword to personalize the message skeleton for the target segment. Personalized messages produced in this manner are then used by the marketer for communications to customers in the segment of the targeted campaign.
Specification ¶ 17.

Claim 1’s preamble recites a “computer-implemented method for linguistically personalizing a textual message for one or more segments of a targeted campaign.” The body of claim 1 then recites extracting terms from a segment specific text to be supplanted by desired sentiment terms using language models in limitations [a]–[c]. Claim 1 further recites identifying transformation points in a message and inserting the desired sentiment terms to personalize the message in limitations [d]–[e].

These steps comprise commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations). Thus, the claim recites the abstract idea of “certain methods of organizing human activity.” *See* 2019 Revised Guidance, Section I (Groupings of Abstract Ideas).

Furthermore, our reviewing court has found claims to be directed to abstract ideas when they recited similar subject matter. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed Cir. 2014) (holding that claim “describe[ing] only the abstract idea of showing an advertisement before delivering free content” is patent ineligible); *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (holding that concept of “creating a contractual relationship—a ‘transaction performance guaranty’” is an abstract idea). Therefore, we conclude the claims recite an abstract idea pursuant to Step 2A, Prong One, of the 2019 Revised Guidance. *See*

2019 Revised Guidance, Section III(A)(1) (Prong One: Evaluate Whether the Claim Recites a Judicial Exception).

Prong Two

Under Prong Two of the 2019 Revised Guidance, we must determine “whether the claim as a whole integrates the recited judicial exception into a practical application of the exception.” 2019 Revised Guidance, Section III(A)(2). We note that a “claim that integrates a judicial exception into a practical application will apply, rely on, or use 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.” 2019 Revised Guidance, Section III(A)(2).

We acknowledge that some of the considerations at Step 2A, Prong 2, properly may be evaluated under Step 2 of *Alice* (Step 2B of the Office guidance). For purposes of maintaining consistent treatment within the Office, we evaluate them under Step 1 of *Alice* (Step 2A of the Office guidance). *See* 2019 Revised Guidance at 55 nn. 25, 27–32.

Appellant argues the steps in claim 1, “are beyond generally linking the use of the judicial exception to a particular technological environment, describing instead a specific and detailed method of personalizing textual message that enables advertisers to generate advertising content and use the content to target consumers based on desired demographic characteristics.” Appeal Brief 22 (citing Specification ¶ 15). Appellant contends, “the claims describe a method that no longer require[s] advertisers to manually produce multiple versions of the same advertising message, with each version

appealing to a different audience segment.” Appeal Brief 22 (citing Specification ¶ 13).

We do not find Appellant’s arguments persuasive because any alleged improvement to the efficiency, speed, and accuracy, arise out of the conventional advantages of using the claimed computing device as a tool, and not a particular improvement to the computing device itself (*see Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (“[M]erely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea”)); *see* 2019 Revised Guidance at 55; *see also Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1090 (Fed. Cir. 2019) (“This invention makes the trader faster and more efficient, not the computer. This is not a technical solution to a technical problem.”).

Further, as the Federal Circuit has explained, a “claim for a *new* abstract idea is still an abstract idea.” *Synopsis, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). Even assuming the technique claimed was “[g]roundbreaking, innovative, or even brilliant,” that would not be enough for the claimed abstract idea to be patent eligible. *See Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013). Claim 1’s method does not recite any improvement to the claimed computing device instead the method only uses the computing device to improve advertisers’ ability to produce multiple versions of the same advertising message for a different audience segment. *See* Appeal Brief 22.

Additionally, we detect no additional element (or combination of elements) recited in Appellant’s representative claim 1 that integrates the judicial exception into a practical application. *See* 2019 Revised Guidance,

Section III(A)(2). For example, Appellant’s claimed additional element (e.g., computing device) does not: (1) improve the functioning of a computer or other technology; (2) is not applied with any particular machine (except for a generic computer device); (3) does not effect a transformation of a particular article to a different state; and (4) is not applied in any 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(a)–(c), (e)–(h).

Accordingly, we determine the claim does not integrate the recited judicial exception into a practical application. *See* 2019 Revised Guidance, Section III(A)(2) (Prong Two: If the Claim Recites a Judicial Exception, Evaluate Whether the Judicial Exception Is Integrated Into a Practical Application).

Step 2B identified in the 2019 Revised Guidance

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 217–18 (*quoting Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)).

Appellant contends, “even assuming arguendo that claim 1 is directed to a judicial exception, which it is not, the claims are nonetheless patent eligible” because the “elements or combination of elements are not well-understood, routine, or conventional activity in the field. Instead, claim 1 is directed to a specific method of efficiently personalizing textual information to one or more segments as part of a targeted advertising campaign.”

Appeal Brief 23 (emphasis added). Appellant argues, “the elements or

combination of elements in claim 1 enables advertisers to target a wide range of customers with varying demographic profiles without the need to manually produce multiple versions of an advertising message. Such an improvement [is] not well-understood, routine, or conventional activity in the field.” Appeal Brief 24 (emphasis added). “[M]any considerations in Step 2A need not be reevaluated in Step 2B.” 2019 Revised Guidance at 56. As we stated above, Appellant’s alleged improvement to the advertising process does not confer patent eligibility on the claimed abstract idea. *See Intellectual Ventures I LLC*, 792 F.3d at 1370. In Step 2B, we need to consider whether an additional or combination of elements, “[a]dds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present” or “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.” 2019 Revised Guidance at 56.

In *Bascom*, our reviewing court found that while the claims of the patent were directed to an abstract idea, the patentee alleged an “inventive concept can be found in the ordered combination of the claim limitations that transform the abstract idea of filtering content into a particular, practical application of that abstract idea.” *Bascom Global Internet Services, Inc., v. AT&T Mobility LLC* 827 F.3d 1341, 1352 (Fed. Cir. 2016). In particular, the patent in *Bascom* claimed “a technology-based solution (not an abstract-idea-based solution implemented with generic technical components in a

conventional way) to filter content on the Internet that overcomes existing problems with other Internet filtering systems.” *Bascom* at 1351.

Claim 1 is distinguishable, as it recites an abstract-idea-based solution, that is, a method of providing personalized advertisement implemented with a generic technical component (e.g., computing device), in a conventional way. *See generally* Specification. Therefore, we are not persuaded that ordered combination of limitations in representative claim 1 provides an inventive concept, and we find the claims simply appends a well-understood, routine and conventional activity to the judicial exception. *See* 2019 Revised Guidance at 56; *see also* Appeal Brief 24.

Accordingly, we conclude claims 1–20 are directed to commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations). As such, the claim recites the abstract idea of “certain methods of organizing human activity” identified in the 2019 Revised Guidance; and thus, an abstract idea with the claims failing to recite limitations that amount to significantly more than the abstract idea itself. We sustain the Examiner’s § 101 rejection of claims 1–20.

CONCLUSION

| Claims Rejected | 35 U.S.C. § | Reference(s)/Basis | Affirmed | Reversed |
|------------------------|--------------------|---------------------------|-----------------|-----------------|
| 1-20 | 101 | Eligibility | 1-20 | |

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

AFFIRMED