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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* RALF BOTCHEN

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Appeal 2018-007920  
Application 14/321,368<sup>1</sup>  
Technology Center 2100

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Before JEREMY J. CURCURI, IRVIN E. BRANCH, and  
DAVID J. CUTITTA II, *Administrative Patent Judges*.

CUTITTA, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from a final rejection of claims 1, 2, 4–15, and 17–20, which are all of the claims pending in the application.<sup>2</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> GOOGLE LLC (“Appellant”) is the Applicant, as provided for under 37 C.F.R. § 1.46, and is also identified in the Appeal Brief as the real party in interest. *See* Appeal Br. 3.

<sup>2</sup> Claims 3 and 16 have been cancelled. *See* Appeal Br. A-1, A4, Claims Appendix.

## STATEMENT OF THE CASE

According to Appellant, the claims are directed to “determining correctly pronounced names based on location in a social networking environment.” Spec. ¶ 1.<sup>3</sup> Claim 1, reproduced below, is representative of the claimed subject matter:

1. A method for generating localized pronunciations of names, the method comprising:

[a] receiving, at one or more processors, a name of a social networking participant and an indication of a geographic region of origin of the social networking participant;

[b] searching, by the one or more processors, a multi-language book, music, or video entertainment database for an instance of the name, wherein the multi-language book, music, or video entertainment database includes a transliteration into a different type of alphabet corresponding to the geographic region of origin;

[c] identifying, by the one or more processors, a transliterated version of the name in the type of alphabet corresponding to the geographic region of origin;

[d] searching, by the one or more processors, at least one of: the multi-language book, music, or video entertainment database to identify multimedia content that includes an instance of the transliterated version of the name vocalized at least near the geographic region of origin;

[e] storing, by the one or more processors on a computer-readable medium, a reference to the vocalized name in a database record associated with the social networking participant; and

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<sup>3</sup> This Decision refers to: (1) Appellant’s Specification filed July 1, 2014 (“Spec.”); (2) the Final Office Action mailed February 12, 2018 (“Final Act.”); (3) the Appeal Brief filed May 8, 2018 (“Appeal Br.”); (4) the Examiner’s Answer mailed June 14, 2018 (“Ans.”); and (5) the Reply Brief filed August 1, 2018 (“Reply Br.”).

[f] providing, by the one or more processors, the vocalized name in response to a request for pronunciation of the social networking participant's name.

#### REJECTION

Claims 1, 2, 4–15, and 17–20 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 2–6.

Our review in this appeal is limited to the above rejection and the issues raised by Appellant. Arguments not made are waived. *See* MPEP § 1205.02; 37 C.F.R. § 41.37(c)(1)(iv).

#### *Principles of Law*

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 implicit exceptions: “[I]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. Pty. Ltd. 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 Supreme Court’s two-step 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, 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, 192 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 184 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 176; *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 Supreme Court also has 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.* at 191 (citations omitted); *see also 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 (citations 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.* (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.*

*USPTO January 7, 2019 Revised Section 101 Memorandum*

The USPTO recently 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.

#### ANALYSIS

Appellant argues the claims as a group, specifically addressing the limitations recited in claim 1. *See* Appeal Br. 13. Accordingly, we focus our discussion on independent claim 1 as exemplary of Appellant’s arguments for claims 2, 4–15, and 17–20. *See* 37 C.F.R. § 41.37(c)(1)(iv)(2017).

The Examiner determines “the description in claim 1 of obtaining/generating localized pronunciation of names for social networking participant’s name is an abstract idea.” Final Act. 3. The Examiner also determines “the additional elements do not amount to significantly more than the above-identified judicial exception (the abstract idea).” Final Act. 4.

Appellant presents several arguments against the section 101 rejection. Applying the guidance set forth in the Memorandum, we are not persuaded of Examiner error for the reasons discussed below. We adopt the nomenclature for the analysis steps used in the Memorandum.

#### 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. Claim 1 recites a method. As such, the claim is directed to statutory classes of invention within 35 U.S.C. § 101, i.e., a process.

STEP 2A Prong 1

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

The Examiner determines claim 1 is directed to an abstract idea. *See* Final Act. 2–3. Appellant presents no arguments that claim 1 does not recite an abstract idea. *See* Appeal Br. 13–15; Reply Br. 2–5. Nevertheless, we still analyze the claim under Step 2A, Prong 1 of the Memorandum for completeness.

Claim 1 recites a “method” including the steps of: [a] “receiving, at one or more processors, a name of a social networking participant and an indication of a geographic region of origin of the social networking participant;” [b] “searching, by the one or more processors, a multi-language book, music, or video entertainment database for an instance of the name, wherein the multi-language book, music, or video entertainment database includes a transliteration into a different type of alphabet corresponding to the geographic region of origin;” [c] “identifying, by the one or more processors, a transliterated version of the name in the type of alphabet corresponding to the geographic region of origin;” and [d] “searching, by the one or more processors, at least one of: the multi-language book, music, or video entertainment database to identify multimedia content that includes an instance of the transliterated version of the name vocalized at least near the geographic region of origin;” [e] “storing, by the one or more processors on a computer-readable medium, a reference to the vocalized name in a database record associated with the social networking participant;” and [f] “providing, by the one or more processors, the vocalized name in response

to a request for pronunciation of the social networking participant's name.”  
Appeal Br. A-1.

Apart from extra-solution activity, such as recited in limitations [a] and [f], the claim recites [b] “searching . . . a multi-language book, music, or video entertainment database for an instance of the name” [c] “identifying . . . a transliterated version of the name in the type of alphabet corresponding to the geographic region of origin;” [d] “searching . . . at least one of: the multi-language book, music, or video entertainment database to identify multimedia content that includes an instance of the transliterated version of the name vocalized at least near the geographic region of origin;” and [e] “storing . . . a reference to the vocalized name in a database record.” Limitations [b], [c], [d], and [e], under their broadest reasonable interpretation, recite a mental process, analogous to a person looking up a pronunciation of a transliterated version of the name in a paper dictionary or other reference source, and storing the result. Our reviewing courts have determined certain claims limited to manipulating information to be abstract. *See Content Extraction and Transmission LLC v. Wells Fargo Bank, National Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (“collecting data, . . . recognizing certain data within the collected data set, and . . . storing that recognized data in a memory.”); *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011) (collecting and comparing known information); *Parker v. Flook*, 437 U.S. 584, 98 (1978) (method for calculating alarm limit values during catalytic conversion processes, in which only novel feature was mathematical formula, did not describe patentable subject matter).

Claim 1's use of a processor for automating mental tasks is an example of concepts performed in the human mind as mental processes because the steps mimic human thought processes that could be performed in the mind or perhaps with paper and pencil. *See Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1279 (Fed. Cir. 2012), cert. denied, 134 S.Ct. 2870 (2014) ("Using a computer to accelerate an ineligible mental process does not make that process patent-eligible."); *see also* Memorandum n.14 (*citing 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."). Analyzing information by steps people may go through in their minds, without more, is essentially a mental process within the abstract-idea category.

From this we conclude that claim 1 recites a mental process as provided for in the Memorandum.

STEP 2A Prong 2

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 *Diehr*, 450 U.S. at 175.

The Examiner determines "[t]here is no improvement to social networking technology because . . . "[t]he present application only uses subquery to search and retrieve an already-pronounced instance of the name and link to social user profile." Ans. 5.

Appellant argues “the claimed invention improves social networking technology by generating name pronunciations in a more accurate manner through utilizing the geographic region of origin of the name.” Appeal Br. 15.

Appellant’s argument is unpersuasive. Claim 1 recites “one or more processors” to perform each of the steps of the abstract idea discussed above. However, these recitations, which nakedly call for the execution of the abstract idea by a computer, are tantamount to nothing more than an instruction to apply the abstract idea using a generic computer, i.e., adds the words “apply it,” and, as a result, does not render the abstract idea eligible. *Alice*, 573 U.S. at 221. The claim only recites a result, not the particular manner to achieve the result, and, even further, does not recite a technology-specific manner to achieve the result.

In addition, as the Examiner notes, claim 1 fails to recite a specific algorithm for “searching, by the one or more processors, a multi-language book, music, or video entertainment database for an instance of the name.” *See* Ans. 3. The searching limitations, therefore, fail to recite technological operations. And because the claims are “not tied to any particular technology,” the claims “can be implemented in myriad ways,” e.g., a “low-tech” manner where a person merely looks up a name pronunciation in a dictionary.

Other than the abstract idea, claim 1 recites [a] “receiving, at one or more processors, a name of a social networking participant and an indication of a geographic region of origin of the social networking participant.” Appeal Br. A-1. Thus, the received name of a social network participant is merely information that is gathered and used as a basis for the searching.

Such data gathering steps, however, are insignificant extra-solution activity that is insufficient to render the claim patent-eligible. *See In re Bilski*, 545 F.3d at 963 (characterizing data gathering steps as insignificant extra-solution activity).

Furthermore, we reach a similar conclusion regarding the outputting of data recited in limitation [f]. Appeal Br. A-1. Such outputting of data is insignificant post-solution activity. *Flook*, 437 U.S. 584 at 590 (“[t]he notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance.”)

Accordingly, the claim is not directed to a specific asserted improvement in computer technological implementation or otherwise integrated into a practical application and thus is *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).

The additional limitations of claim 1, apart from the abstract idea, are generic computing elements performing generic extra-solution activity and, as a result, do not amount to significantly more than the claimed abstract idea. *See Spec.* ¶ 19 (“the client device 102 can be any suitable portable or non-portable computing device.”). Merely reciting generic computing components cannot transform a patent-ineligible abstract idea into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2358. In other words, merely

reciting an abstract idea while adding the words “apply it with a computer” does not render an abstract idea non-abstract: there must be more. *Id.* at 2359.

Appellant argues the “Office has not demonstrated that searching a database for a *transliterated version* of a name in a *different type of alphabet* corresponding to the geographic region of origin, and then searching a database for a vocalization of the *transliterated version* of the name for generating a name pronunciation is well-understood, routine, and conventional. Appeal Br. 16 (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018)). The USPTO Berkheimer Memorandum requires a Patent Examiner to support with factual evidence any allegation that additional claim elements were well-understood, routine, or conventional, at the time the invention was filed.

Appellant’s argument however, is directed to the claimed abstract idea, rather than to additional elements [a] or [f] in claim 1 and is therefore unpersuasive. See *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (“It has been clear since *Alice* that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention “significantly more” than that ineligible concept.”)

Further, considered as an ordered combination, the generic “one or more processors” of limitations [a] – [f] add nothing that is not already present when the steps are considered separately. The sequence of information reception, analysis, and output, performed by the processors, is generic and conventional or has been otherwise held to be abstract. See *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014)

(sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction); and *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (sequence of processing, routing, controlling, and monitoring). The ordering of the steps is therefore ordinary and conventional. Considered both separately and as an ordered combination, the additional limitations add nothing inventive to the claim.

We, thus, conclude that the claim does not provide an inventive concept because the additional elements recited in the claims do not provide significantly more than the recited judicial exception.

Accordingly, claim 1 does not recite patent-eligible subject matter. Therefore, we sustain the rejection of claims 1, 2, 4, 6–12, 14, 15, and 17–20 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

*Dependent claim 5*

Claim 5 depends from claim 1 and additionally recites “storing the reference to the vocalized name in a machine-readable knowledge repository in which data that describes attributes of entities is organized according to semantic relations between the entities, each entity corresponding to a geographic region, a name, and having a reference related to a vocalized instance of the name.” Appeal Br. A-2.

The Examiner finds “[t]his step is only storing additional information (*i.e.*, *storing the reference to the vocalized name*) in a knowledge repository (*e.g.*, *a database*). Storing/adding additional data into a database is not new in the art. The claim does not have any additional limitation that amount to significantly more than the abstract idea.” Final Act. 5.

Appellant argues “claim 5 improves the functioning of the computer by utilizing a machine-readable knowledge repository in which data that describes attributes of entities is organized according to semantic relations between the entities.” Appeal Br. 17.

We find Appellant’s argument unpersuasive. As discussed with respect to claim 1, storing of data is insignificant post-solution activity. *Flook*, 437 U.S. 584 at 588. Storing of data in a more specific type of storage is insufficient to demonstrate an improvement in the functioning of the computer. Accordingly, we sustain the Examiner’s rejection of claim 5

*Dependent claim 13*

Claim 13 depends from claim 10 and additionally recites “wherein at least some of the entities in the machine-readable knowledge repository correspond to the geographic region or origin at varying levels of detail.” Appeal Br. A-4.

The Examiner finds “[t]he machine-readable knowledge databased is similar to the hierarchical geographic database. The claim does not have any addition limitation that amount to significantly more than the abstract idea.” Final Act. 10.

Appellant argues “[c]laim 13 further increases the accuracy of the name pronunciation by storing pronunciations that correspond to geographic regions of origin at varying levels of detail, such as country, continent, state, city, town, etc.” Appeal Br. 18.

We find Appellant’s argument unpersuasive. As discussed with respect to claims 1 and 5, storing of data is insignificant post-solution activity. *Flook*, 437 U.S. 584 at 588. Storing of data in a more specific type of storage is insufficient to demonstrate an improvement in the functioning

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of the computer. Accordingly, we sustain the Examiner's rejection of claim 13.

#### DECISION

We affirm the Examiner's decision to reject claims 1, 2, 4–15, and 17–20 under 35 U.S.C. § 101.

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. § 41.50(f).

AFFIRMED