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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RAGY THOMAS, MURALI SWAMINATHAN, and XIN FENG

Appeal 2020-003383
Application 14/952,490
Technology Center 3600

Before CARL W. WHITEHEAD JR, DAVID M. KOHUT, and IRVIN E. BRANCH, *Administrative Patent Judges*.

BRANCH, *Administrative Patent Judge*.

DECISION ON APPEAL

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

We REVERSE.

[1] We use "Appellant" to reference the applicant as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as "Sprinklr, Inc." Appeal Br. 3.

STATEMENT OF THE CASE

Appellant's Invention

According to Appellant, the invention "relates to systems and methods for making statistical inferences based upon large quantities of largely unstructured data." Spec. ¶ 1. Claim 1, reproduced below, is illustrative of argued subject matter.

> 1. A method implemented on a processing device, the method using information embedded in social media data messages to identify potential buyers and determine the potential buyers' buy intent (BI) in terms of BI scores and thereby provide companies with market information to influence buying decisions of individuals, improve advertisement efficiency, reduce potential risk and grow sales and revenue, the method comprising:
>
> establishing a social media data messages collection system, wherein the social media data messages collection system comprises a plurality of servers and storage containers located in a cloud, wherein the plurality of servers is configured with processing capability, wherein a number of servers within the plurality of servers is dynamically adjustable based on social media data messages collected and processed in the social media data messages collection system;
>
> wherein the social media data messages are based on a number of companies, brands, customers that are catered to, and a number of key-words used;
>
> fetching and collecting, by the social media data messages collection system, social media data messages from social media network sites and websites;
>
> saving the collected social media data messages in the storage containers located in the cloud;
>
> normalizing the social media data messages collected in the storage containers by a data convertor element located within the plurality of servers, wherein normalizing the collected social media data messages comprises:

processing the social media data messages by a multi-language dictionary located within the plurality of servers, wherein the multi-language dictionary comprises multiple languages to convert social media data messages from foreign languages;

converting the social media data messages processed by the multi-language dictionary using a data converter element within the plurality of servers, wherein the data converter element is configured to convert the social media data messages collected in the storage containers into a unified standard word format; and

processing and tagging the social media data messages converted by the data converter element using a part of speech (POS) tag analysis engine, wherein the POS tag analysis engine is configured to generate accurate search indexes for improved search and collection of relevant social media data messages;

training the social media data collection and processing system using the collected social media data messages for artificial intelligence (AI) based BI estimation, wherein the training comprises supplying the collected social media data messages to a first server within the plurality of servers, wherein the first server comprises at least one processor configured to analyze the social media data messages to generate a BI estimation; and

providing the normalized and POS tagged social media data messages to the at least one processor of the first server to generate BI estimation in the form of BI scores, wherein generating BI scores comprises:

processing the normalized and POS tagged social media data messages using vector space modelling, exact match analysis, message replacement and Bayesian classification algorithms to determine a first group of social media data messages to generate the BI score estimation for a potential buyer, wherein the first group of social media data messages comprises a number of social media data messages relating to a brand, a product or a service associated with the potential buyer that

> exceeds a minimum threshold value, wherein the number of social media data messages that exceeds a minimum threshold value are associated with the potential buyer, and wherein the BI score estimation of the potential buyer is converted into a BI score using the at least one processor.

Appeal Br., Claims Appendix.

Rejections

Claims 1–22 stand rejected under 35 U.S.C. § 101 as being directed to a patent-ineligible subject matter. Final Act. 2–7.

OPINION

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: "[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) (citation omitted).

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*. *Alice*, 573 U.S. 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 water-proof 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 Supreme Court held that "a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 187; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Supreme Court also indicated that a claim "seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citing *Benson* and *Flook*); *see*, *e.g.*, *id.* at 187 ("It is now commonplace that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the

elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (citation 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.*

PTO Guidance

The PTO provides guidance for 35 U.S.C. § 101. USPTO's 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Guidance"). Under the 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, and mental processes); and
>
> (2) additional elements that integrate the judicial exception into a practical application (*see* Manual of Patent Examining Procedure (MPEP) § 2106.05(a)–(c), (e)–(h) (9th ed. 2018)).

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 conclude the claim is directed to a judicial exception (*id.* at 54) and look to whether the claim:

> (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)); or
>
> (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

Id. at 56.

Examiner's Error

As explained below, the Examiner fails to address the specific operation of the claimed invention. We are accordingly persuaded of error in the rejection of claims 1–22 under § 101.

For the Guidance's Step 2A(1), the Examiner merely quotes (with minor alterations) the entirety of each claim and then summarily concludes "all of [the limitations] include certain methods of organizing human activities, specifically based on commercial and legal interactions, and managing personal behavior or relationships or interactions between." *Id.* at 3–6; *see also id.* at 5 (additionally mentioning "mathematical concepts"). For Step 2A(2), the Examiner perfunctorily identifies all claimed hardware elements as additional elements, summarily concludes they do not add a practical application, and merely lists as support all Step 2A(2) considerations identified by the above-mentioned sections of the Guidance and MPEP. *Id.* at 6. For Step 2A(2), the Examiner perfunctorily identifies all claimed hardware elements as additional elements, summarily concludes they do not add non-WURC activity, and merely lists as support all Step 2B considerations identified by the above-mentioned sections of the Guidance and MPEP. *Id.* at 6–7.

The Examiner makes the following determinations: "Claim 1 is directed to the abstract idea of determining potential buyers and their buy intent (BI) in terms of BI scores using social media data messages." Final Act. 2–3. "[The invention's object] 'to improve advertisement efficiency, reduce potential risk and grow sales and revenue' are improvements to a business model and not a technological improvement." *Id.* at 7 (quoting). "[S]toring and retrieving data in . . . cloud-based storages . . . are [WURC] and/or insignificant extra-solution activities (See MPEP 2106.05(d) and 2106.05(g))." *Id.* at 7 (referencing the claimed use of "cloud" servers and storage).

Appellant contends "[T]he Examiner apparently identifies the claims as a whole (and not any specific limitation) as the abstract idea." Appeal Br. 21. "[T]he Examiner improperly oversimplifies the claims" (*id.* at 22) and consequently fails to consider whether "the claims involve a highly-specific set of operations . . . that provide a . . . technical benefit" (*id.* at 26) and "do not merely implement an old practice in a new environment" (*id.* at 27). "[T]he Examiner does not even address . . . the claimed multi-language dictionary server, part of speech (POS) tag analysis engine, classification engine" (Reply Br. 3) or the "number of servers . . . [that] is dynamically adjustable based on social media data messages collected" (Appeal Br. 25). And, "[the Examiner] does not offer any explanation why the presently pending claims are any different than the claims of *McRo*" (Reply Br. 1), e.g., whether "[the claims have the specificity required to . . . claim[] a way of achieving [results and thereby] avoid[] preemption concerns" (*id.* at 2).

We are persuaded of error because the Examiner provides insufficient analysis of the claimed invention's specific operation. The Examiner states

the claimed invention determines a buy intent for social media messages (Final Act. 2–3); determines this constitutes a human activity for a commercial or personal interaction (*id.* at 3–6); and determines the claimed invention lacks a practical application and non-WURC activity in view of the Guidance and MPEP (*id.* at 6–7). These determinations, however, are not supported with sufficient reasoning or evidence, and are not accompanied by an analysis of specific claim operations.

Further, the Examiner dismisses Appellant's arguments, stating all claimed operations are part of the identified JE subject matter. Ans. 4. In addition to lacking a meaningful discussion of the arguments, the Examiner's response rests on a determination—the identification of JE subject matter—that itself lacks a meaningful analysis of the claimed invention's specific operation.

In sum, the Examiner has not "refer[red] to what is recited . . . and ***explain[ed] why*** it is considered to be an exception," i.e., "explain[ed] why a specific limitation(s) recited in the claim falls within one of the enumerated groupings of abstract ideas." Guidance Update 16 (original emphasis). Nor has the Examiner "***evaluate[d]*** the integration of the judicial exception into a practical application ***by explaining*** that . . . the claim as a whole . . . does not integrate the judicial exception into a practical application." *Id.* (original emphasis). The Examiner has, rather, sought to avoid addressing the claimed invention's specific operation by merely and summarily labeling all claimed operations as "human activity" for commercial or personal interactions. In Step 2A(1), the Examiner must explain why the operations fall within commercial or personal interactions, which is not reached by merely stating the claimed invention determines a buy intent for social

media messages (Final Act. 2–3). In Step 2A(2), assuming (arguendo) a continued and meaningful identification of each operation as particular JE subject matter, the Examiner must explain why the claimed invention's operations are not integrated into a practical application by specific relations to hardware (e.g., by the argued adjustment of servers) and/or specific data and rules (e.g., by the argued POS tag analysis). *Compare BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016) (Though filtering constituted an abstract idea, the claimed filtering operations were specifically arranged on a network so as to constitute a technical mechanism that can confer patent-eligibility.); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) (Though animation constituted an abstract idea, the claimed animation operations were specifically arranged by data and rules so as to constitute a technical mechanism that can confer patent-eligibility.).

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1–22	§ 101	Eligibility		1–22

REVERSED