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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PAWAN KUMAR AGGARWAL, JOYLEE E. KOHLER, and KEDAR SWADI

Appeal 2018-000493
Application 12/894,624
Technology Center 3600

Before JOHN A. EVANS, LARRY J. HUME, and JUSTIN BUSCH, *Administrative Patent Judges*.

EVANS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants[1] seek our review under 35 U.S.C. § 134(a) of the Examiner's final rejection of Claims 1–11 and 13–25. App. Br. 5. Claim 12 is cancelled. *Id.* We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.[2]

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[1] Appellants state the real party in interest is Avaya, Inc. App. Br. 3.

[2] Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed May 1, 2017, "App. Br."), the Reply Brief (filed October 18, 2017, "Reply Br."), the Examiner's Answer (mailed August 18, 2017, "Ans."), the Final Action (mailed December 7, 2016, "Final Act."), and the Specification (filed September 30, 2010, "Spec.") for

STATEMENT OF THE CASE

The claims relate to a system and method for adaptively assigning multiple contacts to an agent computer. *See* Abstract.

Invention

Claims 1, 15, 16, and 22 are independent. An understanding of the invention can be derived from a reading of Claim 1, which is reproduced below with some formatting added:

> 1. A computer-implemented method for adaptively assigning multiple contacts to an agent computer in a contact center, the computer-implemented method comprising:
>
> querying, by a computer of the contact center, a database to request real-time effectiveness metrics for an agent;
>
> receiving, through a communication interface coupled to the computer of the contact center, the real-time effectiveness metrics from the database;
>
> storing, by the computer of the contact center, the agent's historical effectiveness metrics, wherein the historical effectiveness metrics are measured over a time period prior to a current session in which the agent computer is being assigned contacts;
>
> wherein the real-time effectiveness metrics and the historical effectiveness metrics comprise at least one agent effectiveness metrics element related to multiple simultaneous contacts being assigned to a contact center agent; and
>
> wherein the real-time effectiveness metrics and the historical effectiveness metrics comprise at least one of: average quality score; average customer satisfaction score, average revenue, average handle duration, or percentage of first contact resolution;

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their respective details.

> determining, by the computer of the contact center, the at least one agent effectiveness metrics element, said determining based on the contacts presently being substantially simultaneously scripted and processed by the agent;
>
> updating, by the computer of the contact center, the historical effectiveness metrics to calculate updated effectiveness metrics, said updating based on the determined at least one agent effectiveness metrics element and the real-time effectiveness metrics; and
>
> comparing, by the computer of the contact center, the updated effectiveness metrics with stored target effectiveness metrics; and
>
> assigning, by the computer of the contact center, a new contact to the agent computer when the updated effectiveness metrics is within the target effectiveness metrics.

Rejection[3]

Claims 1–11 and 13–25 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter without significantly more. Final Act. 8–24.

ANALYSIS

We have reviewed the rejections of Claims 1–11 and 13–25 in light of Appellants' arguments that the Examiner erred. We consider Appellants' arguments *seriatim*, as they are presented in the Brief, pages 17–26.

CLAIMS 1–11 AND 13–25: INELIGIBLE SUBJECT MATTER

Appellants argue all claims as a group in view of the limitations of Claim 1. *See* App. Br. 26. Therefore, we decide the appeal of the § 101

[3] The present application was examined under the pre-AIA first to invent provisions. Final Act. 2.

rejections with reference to Claim 1, and refer to the rejected claims collectively herein as "the claims." *See* 37 C.F.R. § 41.37(c)(1)(iv); *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

Appellants' arguments are framed by USPTO 2014 guidance documents.[4] *See* App. Br. 17–24. Subsequent to the prosecution of this application, and in response to Supreme Court and Federal Circuit opinions, the USPTO has issued updated guidance.[5] We review this appeal within the framework of the Revised Guidance.

35 U.S.C. § 101

Section 101 provides that a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. The Supreme Court has long recognized, however, that § 101 implicitly excludes "[l]aws of nature, natural phenomena, and abstract ideas" from the realm of patent-eligible subject matter, as monopolization of these "basic tools of scientific and technological work" would stifle the very innovation that the patent system aims to promote. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)); *see also Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S.66, 72–78 (2012); *Diamond v. Diehr*, 450

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[4] USPTO, 2014 Interim Eligibility Guidance Quick Reference Sheet, available at: http://www.uspto.gov/patents/law/exam/2014_eligibility_qrs.pdf (hereinafter, "Quick Reference Sheet"); USPTO, 2014 Interim Eligibility Guidance on Patent Subject Matter Eligibility, 79 Fed. Reg.74,618, (Dec. 16, 2014).

[5] USPTO, 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance").

U.S. 175, 185 (1981).

Under the mandatory Revised Guidance, we reconsider whether Appellants' claims recite:

1. any **judicial exceptions**, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human interactions 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 reach the issue of 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.

Judicial Exceptions

The Revised Guidance extracts and synthesizes key concepts identified by the courts as abstract ideas to explain that the abstract idea exception includes the following groupings of subject matter, when recited as such in a claim limitation(s) (that is, when recited on their own or per se): (a) mathematical concepts,[6] i.e., mathematical relationships, mathematical

[6] *Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("The concept of hedging . . . reduced to a mathematical formula . . . is an unpatentable abstract idea.").

formulas, equations,[7] and mathematical calculations[8]; (b) certain methods of organizing human activity—fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions)[9]; and (c) mental processes[10]—concepts performed in the human mind (including observation, evaluation, judgment, opinion).[11]

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[7] *Diamond v. Diehr*, 450 U.S. 175, 191 (1981) ("A mathematical formula as such is not accorded the protection of our patent laws"); *Parker v. Flook*, 437 U.S. 584, 594 (1978) ("[T]he discovery of [a mathematical formula] cannot support a patent unless there is some other inventive concept in its application.").

[8] *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018) (holding that claims to a "series of mathematical calculations based on selected information" are directed to abstract ideas).

[9] *Alice*, 573 U.S. at 219–20 (concluding that use of a third party to mediate settlement risk is a "fundamental economic practice" and thus an abstract idea); see Revised Guidance, p. 52, n.13 for a more extensive listing of "certain methods of organizing human activity" that have been found to abstract ideas.

[10] 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* Revised Guidance, p. 52, n.14; *see 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.").

[11] *Mayo*, 566 U.S. at 71 ("'[M]ental processes[ ] and abstract intellectual

The Examiner finds "[b]ecause the claims deal with an optimal way to assign contacts to agents (i.e. assignment of tasks to workers), the claims can also be considered directed to 'Certain Methods of Organizing Human Activity.'" Final Act. 12.

The Examiner does not specify which limitations correspond to "assignment of tasks to workers," as found. Claim 1 recites, *inter alia*, "[a] computer-implemented method for adaptively assigning multiple contacts to an agent computer in a contact center" and "assigning, by the computer of the contact center, a new contact to the agent computer." In view of the Examiner's finding, we first analyze these "assigning" limitations to determine whether they can be considered as reciting "Certain Methods of Organizing Human Activity." On their face, the claims appear not to involve people, but rather computers. The Examiner quotes Appellants' Specification: "the present invention generally relate[s] to contact center agent assignment management and in particular to a system and method for adaptively assigning multiple contacts to an agent determined by that agent's current metrics data or effectiveness measure," to find "the claimed invention is in the assignment of work to individuals, i.e. assigning the appropriate amount of work to **a person** that they can handle." Ans. 4 (quoting Spec. 1). The Examiner finds the "assignment of tasks is directed to the abstract idea of balancing a person's load." *Id.* Appellants disclose an agent is a human: "because agents are human, . . . an agent's ability to multi-task may waiver from time to time." Spec. ¶ 3. The Examiner finds

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concepts are not patentable, as they are the basic tools of scientific and technological work'" (quoting *Benson*, 409 U.S. at 67)).

the "assigning of tasks to a person to complete based on their capacity to handle tasks is very clearly the managing of human mental activity, i.e. managing how many tasks they can perform at one time." Ans. 7.

However, contrary to the Examiner's finding, the claims do not recite "assigning to an agent." Rather, the claims recite "assigning" "to the agent computer." The Examiner's finding ignores a term in the claims. By their own terms, the claims do not assign to a person, the agent, the claims assign to a computer of the agent. Therefore, the claims do not recite a judicial exception, i.e., "Certain Methods of Organizing Human Activity." If, as here, the claim does not recite a judicial exception, then the claim is eligible at Prong One of revised Step 2A. This concludes the eligibility analysis. Revised Guidance, at 54.

In view of the foregoing, we decline to sustain the rejection of claims 1, 10, and 21 under 35 U.S.C. § 101.

DECISION

We reverse the rejection of Claims 1–11 and 13–25 under 35 U.S.C. § 101.

REVERSED