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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TIMOTHY J. BETHEA, NEIL H. BOYETTE, ISAAC K. CHENG,
VIKAS KRISHNA, YOLANDA A. RANKIN, and YONGSHIN YU

Appeal 2017-011367
Application 12/756,813¹
Technology Center 3600

Before MURRIEL E. CRAWFORD, BRUCE T. WIEDER, and
AMEE A. SHAH, *Administrative Patent Judges*.

WIEDER, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1, 3–11, 13–20, and 25. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

Appellants' invention "relates to software and systems used in data centers, call centers and/or customer support applications," and specifically

¹ According to Appellants, the real party in interest is International Business Machines Corporation. (Appeal Br. 3.)

to a “method, system and computer program product for a real-time collaborative technical support (RTCTS) system.” (Spec. ¶¶ 1, 5.)

Claims 1, 11, and 25 are the independent claims on appeal. Claim 11 is illustrative. It recites:

11. A computer implemented method comprising the steps of:
 - converting, using a speech to text processor, spoken words of voice recordings into text;
 - determining, using a natural language speech processor, what problem two or more support people are currently working on from the text;
 - accepting, using a classification system, as input data of the natural language speech processor and grouping the two or more support people together in a temporary group based on the text indicating a similar problem is being worked on by the two or more support people;
 - generating, using the classification system, a social network comprising two or more support people based on the text;
 - facilitating, using a processor, collaboration in a real-time support provider environment of the two or more support people with said support provider environment, comprising the steps of:
 - combining the two or more support people into the temporary group, wherein the temporary group comprises a social network dashboard having a group chat functionality for communication between the two or more support people of the temporary group; and
 - maintaining the dashboard of the social network based upon said temporary group to support requests in said related work area.

REJECTIONS

Claims 1, 3–11, 13–20, and 25² are rejected under 35 U.S.C. § 112, second paragraph, as failing to comply with the written description requirement.

Claims 1, 3–11, 13–20, and 25³ are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 1, 3–11, 13–20, and 25⁴ are rejected under 35 U.S.C. § 103(a) in view of Martinez (US 7,444,323 B2, iss. Oct. 28, 2008), Erhart (US 2006/0025995 A1, pub. Feb. 2, 2006), Alaniz (US 2008/0195897 A1, pub. Aug. 14, 2008), and Covell (US 2007/0124756 A1, pub. May 31, 2007).

ANALYSIS

The § 112, second paragraph, rejection

The Examiner determines that “Claims 1, 11 and 25 recite combining people into a temporary group that comprises a dashboard of the social network having a group chat functionality. It is unclear as to how human

² The Examiner refers to “[c]laims 1, 3-11, 14-20, and 25.” (Final Action 2.) Because claim 13 is pending and depends from rejected claim 11, we consider the omission of reference to claim 13 to be a typographical error.

³ Again, the Examiner refers to “[c]laims 1, 3-11, 14-20, and 25.” (Final Action 3.) And again, we consider the omission of reference to claim 13 to be a typographical error.

⁴ Again, the Examiner refers to “[c]laims 1, 3-11, 14-20, and 25.” (Final Action 6.) Because the Examiner specifically discusses the rejection of claim 13 (Final Action 7), we consider the omission of reference to claim 13 on page 6 of the Final Action to be a typographical error.

beings can be grouped so as to include a software application.” (Final Action 3.)

Appellants disagree and argue:

As elaborated by the underlying specification, “[t]he social networks 80 may be used and/or visualized 86 in a variety of ways, from a simple group chat to a dashboard-like application to a virtual world. These visualizations may be different for support people 22, managers 30 and support users 12.” *See Specification* at [0068]. More particularly, the specification and the aforementioned claimed limitation refer to a virtual group (e.g., a chat room comprising a group chat, etc.) where at least two customer support representatives may be seated at different computers but may be grouped into a temporary virtual group (e.g., using a software application, etc.) having a dashboard with communication features. Applicants respectfully submit that such a limitation would be clear to one having ordinary skill in the art.

(Appeal Br. 15.)

We are persuaded of error. Claim 11 requires 1) combining two or more support people into a temporary group, and 2) that the group includes a social network dashboard having a group chat functionality for communication between the people of the group. The Examiner does not sufficiently explain why the group cannot include the recited dashboard. Applying a broadest reasonable interpretation, the term “temporary group” includes both support people and the recited social network dashboard. Absent the dashboard, the group of support people remains a group of people, but it is not a “temporary group” as that term is used in the claim. Independent claims 1 and 25 contain similar language. For the reasons discussed above, we will reverse the Examiner’s § 112, second paragraph rejection.

The § 101 rejection

“Whoever 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. Section 101, however, “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

Alice applies a two-step framework, earlier set out in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 573 U.S. at 217.

Under the two-step framework, it must first be determined if “the claims at issue are directed to a patent-ineligible concept.” *Id.* If the claims are determined to be directed to a patent-ineligible concept, e.g., an abstract idea, then the second step of the framework is applied to determine if “the elements of the claim . . . contain[] an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Id.* at 221 (citing *Mayo*, 566 U.S. at 72–73, 79).

With regard to step one of the *Alice* framework, we apply a “directed to” two prong test to: 1) evaluate whether the claim recites a judicial exception, and 2) if the claim recites a judicial exception, evaluate whether the claim “appl[ies], rel[ies] on, or use[s] 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.” *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 54 (Jan. 7, 2019) (hereinafter “2019 Guidance”).

Here, the Examiner determines that the claims are “directed to facilitating collaboration by combining at least two support people into a group by monitoring to determine a similar problem being worked. This is the abstract idea of [a] certain method of organizing human activity, specifically, the management of relationships and transactions between people.” (Final Action 3.)

Appellants disagree and argue that rather than being directed to an abstract idea, the

claims are directed to a technique for facilitating collaboration in a real-time support provider environment by combining two or more support people into a temporary group, where the temporary group comprises a social network dashboard having a group chat functionality that allows the two or more support people to communicate with each other.

(Appeal Br. 17.)

We are not persuaded of error. Under step one of the *Alice* framework, we “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)).

The ‘directed to’ inquiry . . . cannot simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions *involves* a law of nature and/or natural phenomenon

. . . . Rather, the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’ *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016). In other words, the first step of the *Alice* framework “asks whether the focus of the claims is on the specific asserted improvement in [the relevant technology] or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Id.* at 1335–36; *see also* 2019 Guidance at 54–55.

The Specification provides evidence as to what the claimed invention is directed. In this case, the Specification discloses that the invention relates to a “method, system and computer program product for a real-time collaborative technical support (RTCTS) system.” (Spec. ¶ 5.) Claim 11 provides further evidence. Claim 11 recites “converting . . . spoken words . . . into text,” “determining . . . what problem two or more support people are currently working on from the text,” “grouping the two or more support people together in a temporary group based on the text,” “generating . . . a social network comprising two or more support people,” “facilitating . . . collaboration . . . comprising the steps of: combining the two or more support people into the temporary group, wherein the temporary group comprises a social network dashboard having a group chat function,” “and maintaining the dashboard.” In other words, claim 11 is directed to managing relationships or interactions between people, i.e., a method of organizing human activity. *See, e.g., In re Ferguson*, 558 F.3d 1359, 1364–65 (Fed. Cir. 2009); *see also* 2019 Guidance at 52.

Although we and the Examiner describe, at different levels of abstraction, to what the claims are directed, it is recognized that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). That need not and, in this case does not, “impact the patentability analysis.” *See id.* at 1241.

Claim 11 accomplishes the claimed method by converting words to text, analyzing the text, and grouping/combining people based on the analyzed text. Speech conversion, data analysis, and classification are well-known computer functions. *See, e.g., In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); *see also Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). We do not see how the recitation of processors and a dashboard with a group chat feature, even in conjunction with the recited functions, “ensure[s] ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Alice*, 573 U.S. at 221 (brackets in original) (quoting *Mayo*, 566 U.S. at 77.) Moreover, the limitations of claim 11 do not recite implementation details. Rather, “the recited physical components merely provide a generic environment in which to carry out the abstract idea.” *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d at 611.

“[W]e have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.” *Elec. Power Grp.*, 830 F.3d at 1353. “In a similar vein, we have treated analyzing information by steps people go through in their minds [e.g., by grouping people based on collected information], or by mathematical algorithms, without more, as essentially

mental processes within the abstract-idea category.” *Id.* at 1354; *see also Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014).

Appellants also argue that there is “no risk that the claims will ‘tie up’ the subject matter,” i.e., that the claims will preempt all applications of the abstract idea. (Appeal Br. 18.)

We do not find this persuasive of error. Preemption is not a separate test. “Where a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). In other words, “preemption may signal patent ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

In view of the above, we agree with the Examiner that claim 11 is directed to an abstract idea.

Step two of the *Alice* framework has been described “as a search for an ‘“inventive concept” ’ –i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. at 72–73).

Appellants argue:

The present claims recite methods and systems for facilitating collaboration in a real-time support provider environment by combining two or more support people into a temporary group that clearly were not well-understood, routine and conventional in the field at the time of filing. Specifically, the present claims recite additional, novel and non-obvious

functionality that improves the operation of devices with regard to grouping determinations.

(Appeal Br. 19.)

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Alice*, 573 U.S. at 225. They do not.

“If a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea” *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290–91 (Fed. Cir. 2018). As discussed above, converting words to text, analyzing the text, and grouping people based on the analysis using processors simply use conventional and well-understood techniques. Moreover, merely adding communication between people in the group using similarly conventional and well-understood techniques “does not amount to an improvement in computer technology” or otherwise transform the abstract idea into patent-eligible subject matter. *See Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017).

Nor do we find persuasive Appellants’ argument that the claims recite “novel and non-obvious functionality.” “[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility.” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016).

Taking the claim elements separately, the function performed by the processors and dashboard are purely conventional. Converting, analyzing,

and grouping/combining information are basic computer functions, i.e., they are well-understood, routine, and conventional functions previously known to the industry. *See Elec. Power Grp.*, 830 F.3d at 1356 (The claims “do not include any requirement for performing the claimed functions of gathering, analyzing, and displaying in real time by use of anything but entirely conventional, generic technology. The claims therefore do not state an arguably inventive concept . . .”).

Considered as an ordered combination, the generic computer components of Appellants’ method add nothing that is not already present when the steps are considered separately. For example, claim 11 does not, as discussed above, purport to improve the functioning of the components themselves. Nor does it effect an improvement in any other technology or technical field. Instead, claim 11 amounts to nothing significantly more than an instruction to apply the abstract idea using generic computer components. That is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 225–26. In short, “these claims in substance [are] directed to nothing more than the performance of an abstract business practice . . . using a conventional computer. Such claims are not patent-eligible.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014).

In view of the above, we are not persuaded that the Examiner erred in rejecting claim 11 under § 101. Claims 1, 3–10, 13–20, and 25 are not separately argued and fall with claim 11. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The § 103(a) rejection

Appellants argue independent claims 1, 11, and 25 together. Appellants do not separately argue dependent claims 3–10, and 13–20. We select claim 11 as representative. Claims 1, 3–10, 13–20, and 25 will stand or fall with claim 11. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Appellants argue that the Examiner erred in rejecting independent claim 11 as obvious. Specifically, Appellants argue “that Martinez does not disclose ‘converting, using a speech to text processor, spoken words of voice recordings into text; determining, using a natural language speech processor, what problem two or more support people are currently working on from the text.’” (Appeal Br. 20.) Appellants also argue that

nowhere in Erhart is “determining, using a natural language speech processor, what problem two or more support people *are currently working on* ... and grouping the two or more support people together in a temporary group based on the text indicating a similar problem is being worked on by the two or more support people”.

(*Id.* at 21.)

The Examiner finds that “Martinez discloses combining at least two people into a temporary group supporting a related work area and forming-maintaining at least one social network based upon said temporary group to support requests.” (Final Action 6.) The Examiner finds that Martinez teaches “grouping based on expertise matching.” (Answer 3.) The Examiner also finds that Erhart “discloses classifying using natural language processing and speech to text conversion to classify calls into a particular subject area in order to route to appropriate agents or response teams.” (Final Action 6.) Also, the Examiner determines that “it would have been obvious to one of ordinary skill in the art to include in the content routing

system of Martinez the ability to classify using natural language processing and speech to text conversion into a particular subject area as taught by Erhart.” (*Id.* at 6–7.)

Nonobviousness is not established by attacking references individually when the rejection is based on a combination of references. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). A reference “must be read, not in isolation, but for what it fairly teaches in combination with the prior art as a whole.” *Id.* Appellants read and argue Martinez and Erhart in isolation and do not persuasively argue error with respect to the Examiner’s proposed combination. Therefore, we are not persuaded that the Examiner erred.

Appellants next argue that, with regard to the Covell reference, “the GUI in Covell is not related at all to a ‘social network dashboard having a group chat functionality for communication between two or more support people of the temporary group.’” (Appeal Br. 22.) In particular, Appellants argue that “a person having ordinary skill in the art of call routing would not have looked to the teachings in Covell, which deals with the unrelated matter of un-grouped user interactions with an interface, to learn the content associated with the aforementioned limitation.” (*Id.*) We understand this to be a nonanalogous art-type argument.

The Examiner finds that Alaniz “discloses a collaboration program that allows technicians, outside experts and other to participate in remote troubleshooting.” (Final Action 7.) Also, the Examiner determines that

it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a visualization of the social network that allows insertion of an expert into said social network, as disclosed by Alaniz in the system disclosed by

Martinez, for the motivation of providing a method of remote collaboration in order to debate and discuss (Alaniz; P[0036]) the content under review of Martinez’s system. Martinez discloses review meetings (C12; L28-37). The combination with Alaniz enables a meeting to take place via collaboration tools.

(*Id.*) With regard to Covell, the Examiner finds that Covell “discloses a GUI (i.e., a dashboard) with a group chat function.” (*Id.*; *see also* Covell ¶¶ 68, 73, and Fig. 5.) Also, the Examiner finds that “it would have been obvious to one of ordinary skill in the art to include in the content routing system of Martinez the ability access a group chat feature via an interface as taught by Covell.” (*Id.*) In short, the Examiner relies on Covell only for its disclosure of “a GUI (i.e., a dashboard) with a group chat function” for remote collaboration in the modified system of Martinez. (Answer 3.)

The analogous-art test requires that the Board show that a reference is either in the field of the applicant’s endeavor or is reasonably pertinent to the problem with which the inventor was concerned in order to rely on that reference as a basis for rejection. *In re Oetiker*, 977 F.2d 1443, 1447 (Fed.Cir.1992). References are selected as being reasonably pertinent to the problem based on the judgment of a person having ordinary skill in the art. *Id.* (“[I]t is necessary to consider ‘the reality of the circumstances,’—in other words, common sense—in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor.” (quoting *In re Wood*, 599 F.2d 1032, 1036 (C.C.P.A. 1979))).

In re Kahn, 441 F.3d 977, 986–87 (Fed. Cir. 2006).

Covell discloses a “commenting medium display area **504** [that] presents a chat room type environment where multiple users can comment” (Covell ¶ 73.) While the commenting discussed in Covell relates to broadcasts (*id.*), Covell is clearly related to the use of chat room type

environments. Thus, we do not find persuasive Appellants' argument that "the GUI in Covell is not related at all to a 'social network dashboard having a group chat functionality . . .'" (Appeal Br. 22.)

Moreover, one of the problems with which the inventors were concerned was real-time communication between people. For example, the Specification discloses that the invention relates to "a real-time collaborative technical support (RTCTS) system." (Spec. ¶ 5.) Appellants do not persuasively argue why the disclosure in Covell of such real-time communication between people via a chat room type environment is not reasonably pertinent to a problem with which the inventors were concerned. Therefore, we are not persuaded that Covell is nonanalogous art.

In view of the above, we are not persuaded that the Examiner erred in rejecting claim 11 under § 103(a). Claims 1, 3–10, 13–20, and 25 fall with claim 11. *See* 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

The Examiner's rejection of claims 1, 3–11, 13–20, and 25 under 35 U.S.C. § 112, second paragraph, is reversed.

The Examiner's rejection of claims 1, 3–11, 13–20, and 25 under 35 U.S.C. § 101 is affirmed.

The Examiner's rejection of claims 1, 3–11, 13–20, and 25 under 35 U.S.C. § 103(a) is affirmed.

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