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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* TYLER BALDWIN, CHEN CHANG,  
JOSHUA RICHARD VANGEEST, and MIKE DEREZIN

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Appeal 2017-001772<sup>1</sup>  
Application 14/015,695<sup>2</sup>  
Technology Center 3600

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Before ANTON W. FETTING, NINA L. MEDLOCK, and  
TARA L. HUTCHINGS, *Administrative Patent Judges*.

HUTCHINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1–11, 13–17, and 19–22. We have jurisdiction under 35 U.S.C. § 6(b).

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<sup>1</sup> Our decision references Appellants’ Appeal Brief (“App. Br.,” filed July 7, 2016), Reply Brief (“Reply Br.,” filed Nov. 10, 2016), and Specification (“Spec.,” US 2014/0244530 A1, pub. Aug. 28, 201), and the Examiner’s Answer (“Ans.,” mailed Sept. 16, 2016) and Final Office Action (“Final Act.,” mailed Dec. 21, 2015).

<sup>2</sup> Appellants identify LinkedIn Corporation as the real party in interest. App. Br. 2.

We AFFIRM.

### CLAIMED INVENTION

Claims 1, 6, 11, and 17 are the independent claims on appeal.

Claim 11, reproduced below, is illustrative of the claimed subject matter:

11. A method comprising:
  - using at least one computer processor to:
    - receive a search query;
    - identify a first plurality of members of a social networking service having member profile attributes satisfying the search query;
    - for each member in the first plurality, compute individual social proximity scores for a set of organizations representing customer accounts of a particular business entity on whose behalf the search query has been invoked; and
    - for each member in the first plurality, combine the individual social proximity scores of the member to form an aggregate social proximity score; and
    - on a display unit, displaying member profile information of the first plurality of members in an order that is determined based at least in part on the aggregate social proximity score of the respective members.

### REJECTIONS

Claims 1–11, 13–17, and 19–22 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 1–11, 13–17, and 19–22 are rejected under 35 U.S.C. § 103(a) as unpatentable over Yuster et al. (US 2006/0004869 A1, pub. Jan. 5, 2006) (“Yuster”), Ho et al. (US 2005/0283753 A1, pub. Dec. 22, 2005) (“Ho”), and Work et al. (US 2006/0042483 A1, pub. Mar. 2, 2006) (“Work”).

## ANALYSIS

### *Patent-Ineligible Subject Matter*

Under 35 U.S.C. § 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. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth 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 Corp.*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 79, 78).

The Court acknowledged in *Mayo*, that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. Therefore, the Federal Circuit has instructed that claims are to be considered in their entirety to determine “whether their character as a whole is directed to excluded subject matter.”

*McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

In rejecting the claims under 35 U.S.C. § 101, the Examiner determined that the claims are directed to the abstract idea of “identifying members with connections to current employees at target organizations” by “comparing new and stored information[,] and us[ing] rules to generate options.” Final Act. 2. The Examiner ascertained that the claims “also include computing aggregate social proximity scores based on individual scores between member/organization pairings and comparing them to a threshold to produce the result set,” which is a “mathematical relationship,” i.e., an abstract idea. *Id.* at 2–3. Applying step two of the analysis, the Examiner determined that the claims do not include additional elements or a combination of elements sufficient to ensure that the claims amount to significantly more than the abstract idea itself. *Id.* at 3.

Addressing the first step of the *Mayo/Alice* framework, Appellants argue that the claims are not directed to an abstract idea, because the claims “improve the function of a computer itself” by “caus[ing] the computer to act as a recruiting tool and/or a hiring tool, such as by receiving a search query, accessing information within a social network in response to the search query, and displaying results from the accessed information.” App. Br. 16. Appellants contend that “a mere generic computer (e.g., a computer that does not execute the recitations of claim 1) does not function as a recruiting tool and/or hiring tool,” and “would not be able to manipulate data obtained from the social network to function as a recruiting tool.” *Id.*; see also Reply Br. 2 (“[C]aus[ing] a computer to have a new function *is the very*

*definition* of improving the functionality of the computer.”). Appellants conclude that the Examiner describes the language “at a high level of abstraction untethered from the language of the claim[s].” *Id.* But, we are not persuaded that receiving a search query, accessing information in response to the query, and display results from the accessed information to cause the computer to act as a recruiting tool and/or hiring tool amounts to an improvement to the function of a computer itself. Instead, this concept is similar to patent-ineligible claims focused on “collecting information, analyzing it, and displaying certain results of the collection and analysis.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016).

The question at step one is whether the “focus of the claims” is on a “specific asserted improvement in computer capabilities . . . , or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016). Here, claim 11 recites a method that includes five steps: (1) receive a search query; (2) identify a first plurality of members of a social networking service having member profile attributes satisfying the search query; (3) for each member in the first plurality, compute individual social proximity scores for a set of organizations organization; (4) for each member in the first plurality, combine the individual social proximity scores of the member to form an aggregate social proximity score; and (5) display the aggregate social proximity scores of the second plurality of members. Although of differing scope, claims 1, 6, and 17 recite language similar to claim 11.

Appellants' Specification describes that the claimed invention derives and uses social proximity scores as an aid in the decision making processes associated with the recruiting and/or hiring of employees. *See, e.g.*, Spec. ¶ 2. The Background section of Appellants' Specification ties the success of an organization to the effectiveness of its sales team, and describes that current processes attempt to more effectively allocate existing members of a sales team, but do not address recruiting and hiring shortcomings. *Id.* ¶ 3. In light of these business concerns, Appellants' invention seeks to "facilitat[e] the recruiting and/or hiring of sales representative candidates based at least in part on deriving and presenting an overall score for each candidate that reflects the extent to which the respective candidate is socially connected to a set of existing and/or potential customer accounts of the hiring organization." *Id.* ¶ 19; *see also* App. Br. 16 (arguing that claim 1 causes a computer to act as a recruiting and/or hiring tool by receiving a search query, accessing information within a social network in response to the search query, and displaying results).

Understood in light of the Specification, Appellants' claims focus on an improvement to a process for recruiting and hiring, i.e., an improvement that qualifies as an abstract idea for which computers are invoked as a tool. Like the claims in *Electric Power*, Appellants' claims perform the steps of collecting information (e.g., claim 11, step 1), analyzing the information (e.g., claim 11, steps 2–4), and displaying certain results (e.g., claim 11, step 5). *See Elec. Power*, 830 F.3d at 1354 (finding claims directed to an abstract idea where "[t]he advance they purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those

functions”). Accordingly, we are not persuaded that the Examiner erred in determining that the claims are directed to an abstract idea.

Turning to step two of the *Mayo/Alice* framework, we are not persuaded that there are additional elements that transform the nature of the claim into a patent-eligible application. App. Br. 16–17. Appellants argue that the Examiner “improperly characterizes ‘performing calculations on data’ in isolation, removed from other elements in the claims.” *Id.* at 16. Yet, Appellants do not identify, and we do not find, any non-conventional, non-generic arrangement of elements that is recited in the present claims and is in the realm of the non-abstract. *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1170 (Fed. Cir. 2018) (“[P]atent law does not protect such claims [i.e., claims to an asserted advance in the realm of abstract ideas] . . . no matter how groundbreaking the advance.”).

We are not persuaded, on the present record, that the Examiner erred in rejecting claims 1–11, 13–17, and 19–22 under 35 U.S.C. § 101. Therefore, we sustain the Examiner’s rejection.

#### *Obviousness*

##### *Independent Claim 1, and Dependent Claims 2–5*

We are persuaded by Appellants’ argument that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because Yuster does not disclose or suggest “for each member in the first plurality [of members of a social networking service], compute individual social proximity scores . . . based on established connections within the social networking service between said member and other members having member profiles indicating current employment at the particular organization,” as recited in claim 1. We have reviewed the portions of Yuster cited by the Examiner for this limitation.



*See* Final Act. 5 (citing Yuster ¶¶ 59, 66–69). Yet, we find nothing that discloses or suggests computing individual social proximity scores based on established connections between the member and other members of the social networking service, as required by claim 1.

Yuster describes identifying individuals within an organization who are familiar with a target person outside of the organization. Yuster ¶ 10. Yuster’s system couples to an organization’s email server, accesses the organization’s e-mail server, and catalogs relationship information contained in the header of each e-mail that is sent or received. *Id.* ¶¶ 47, 50. Exemplary relationship information includes the identity of the sender and recipient, the date and time of the email, and the identity of the person replying to the email. *Id.* The system analyzes the emails and calculates a link-strength between an individual within the company and an individual outside the company. *Id.* ¶ 51. Link-strength is estimated based on frequency and recentness of the interaction, address book completeness, and so on. *Id.* ¶ 69. The information then may be searched to identify employees of the organization having a relationship with a target individual at a target organization. *Id.* ¶¶ 58–59.

Appellants contend that Yuster does not operate in a typical social networking service, but rather is an email based system. App. Br. 19–21. The Examiner takes the position that Yuster’s “**system itself is the [claimed] social networking service** as it relates to enterprise relationship management.” Ans. 3. The difficulty with the Examiner’s position is that there is no indication that Yuster’s target individual is a “member” of Yuster’s system, as required by claim 1. Instead, Yuster’s system couples with the organization’s email server; mines information from emails sent

from and received by individuals within the organization to establish relationship information with the target individuals at a target organization; and provides system access to individuals within the organization (e.g., employees) to identify links to target individuals at the target organization (*see, e.g., Yuster ¶¶ 20, 58–59*), suggesting its members include, at most, the individuals within the organization coupling with Yuster’s system, not the target individual at a target corporation.

Therefore, we do not sustain the Examiner’s rejection of claim 1 and its dependent claims under 35 U.S.C. § 103(a).

*Independent Claims 6, 11, and 17, and Dependent Claims 7–10, 13–16, and 19–22*

Independent claims 6, 11, and 17 recite language substantially similar to the language of claim 1, and stand rejected based on the same rationale applied with respect to claim 1. Final Act. 4–6. Therefore, we do not sustain the Examiner’s rejection under 35 U.S.C. § 103(a) of independent claims 6, 11, and 17, and their dependent claims, for the same reason set forth above with respect to claim 1.

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DECISION

The Examiner's rejection of claims 1–11, 13–17, and 19–22 under 35 U.S.C. § 101 is affirmed

The Examiner's rejection of claims 1–11, 13–17, and 19–22 under 35 U.S.C. § 103(a) is reversed.

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)(iv).

AFFIRMED