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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NISHEETH RANJAN and MICHAEL LEEDS¹

Appeal 2017-005271
Application 14/675,164
Technology Center 2100

Before DAVID M. KOHUT, KAMRAN JIVANI, and SCOTT E. BAIN,
Administrative Patent Judges.

KOHUT, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants seek our review, under 35 U.S.C. § 134(a), of the Examiner's Final rejection of claims 1–18. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ According to Appellants, the real party in interest is LinkedIn Corporation. App. Br. 2.

INVENTION

“The present invention is directed to methods and systems for providing personal connection alerts.” Abstract.

Claim 1 is selected as representative of all claims and reproduced below. *See* 37 C.F.R. § 41.37(c)(1)(iv) (representative claims).

1. A computer system for finding one or more targets for a particular user comprising:

a storage comprising:

a set of connection data that indicates that the particular user has joined one or more communities that include a first community;

a first set of community data that indicates that a first plurality of users are members of the first community, wherein the first community includes one or more first users who are not primary connections of the particular user;

one or more processors;

one or more storage media storing instructions which, when executed by the one or more processors, cause:

receiving, from the particular user using a client computer, a search that specifies one or more search criteria;

identifying, from the storage, the set of connection data that is associated with the particular user;

based on the set of connection data, identifying the first community that the particular user has joined;

based on the first community, identifying, within the first set of community data from the storage, the first plurality of users;

in response to receiving the search, determining, based on comparing the one or more search criteria with a first plurality of records that are associated with the first plurality of users, that one or more first records in the first plurality of records satisfies the one or more search criteria, and

in response to determining that that one or more first records in the first plurality of records satisfies the one or more search criteria, sending, to the client computer, a notification identifying at least a first target that corresponds to a first record in the one or more first records.

REJECTIONS

Claims 1–18 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception of patent-eligible subject matter. Final Act. 2–3; *see also* Ans. 3–4

EXAMINER’S FINDINGS

The Examiner finds claim 1 recites only a judicially-recognized abstract idea—namely the human activity of collecting, recognizing, organizing, and storing information—and a conventional implementation thereof. Final Act. 4; *see also* Ans. 7. In support, the Answer states in part:²

[T]he “receiving,” “identifying,” “determining,” “comparing” or “indicating” [claim] steps describe receiving user requests to identify potential contacts[, which] is a human activity[.]
[Ans. 6.]

Similar examples of abstract ideas identified by the courts include “[c]ollecting data, recognizing certain data within the collected data set, and storing that recognized data in a

² As reflected by the bracketed citations, the ensuing quotes are not contiguous statements of the Answer.

memory” and “[u]sing categories to organize, store, and transmit information.” [*Id.* at 7.]

The claims amount to no more than performing a human activity by using a computer and a network. [*Id.*]

[T]he [argued] limitations . . . are merely additional steps that could be performed by a human within the overall concept of “identifying users who are more than one degree of separation away from a particular user using community information[.]” [*Id.* at 8 (quoting App. Br. 20).]

The [argued] improvement [could be] multiple individuals [having] sets of Rolodex cards containing their personal contacts [and s]earching through the multiple sets of cards to identify a user or individual who is more than one degree of separation from another individual[.] [*Id.* at 9–10.]

“Receiving user requests to identify potential contacts” clearly . . . involves organizing human activity that can easily be accomplished without the aid of a general-purpose computer. [*Id.* at 11.]

[E]ach of the noted limitations amount to steps that a human could perform in the context of the Rolodex example[.] [*Id.* at 12.]

PRINCIPLES OF LAW

The Supreme Court interprets 35 U.S.C. § 101 to include an implicit exception, excluding from patentability “[l]aws of nature, natural phenomena, and abstract ideas.” *See e.g., Alice Corp. Pty Ltd. v. CLS Bank Int’l*, 134 S.Ct. 2347, 2354 (2014). In *Alice*, the Court 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*, 134 S.Ct. at 2355.

The first step is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts,” such as an abstract idea. *Id.* If the claims are not directed to an abstract idea, the inquiry ends. *Id.*

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). We “look to whether the claims . . . focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *See Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1371 (Fed. Cir. 2017) (quoting *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016)). “[S]imply appending generic computer functionality to lend speed or efficiency to the performance of an otherwise abstract concept does not meaningfully limit claim scope for purposes of patent eligibility.” *CLS Bank Int’l v. Alice Corp. Pty.*, 717 F.3d 1269, 1286 (Fed. Cir. 2013), *aff’d* by *Alice*.

ANALYSIS

Appellants’ arguments do not persuade us the Examiner erred in rejecting claim 1. Moreover, we adopt the Examiner’s findings within the Final Action and Answer. Final Act. 2–4; *see also* Ans. 3–12. We add the following for emphasis.

The Examiner presents three principle determinations within the findings addressed above. *See supra* 3–4 (Examiner’s findings). First, claim 1 is directed to a human activity of identifying contacts with more than one degree of separation (from him/her), e.g., as could be done with a Rolodex. *Id.* Second, this claimed activity is analogous to a judicially-recognized abstract idea of human activity, particularly collecting, recognizing, organizing, and storing information. *Id.* Third, this claimed activity is implemented via only generic computer technology. *Id.* We agree with these findings.

Firstly, we agree claim 1 is directed to a human activity of identifying new contacts, e.g., as may be performed by borrowing a friend’s Rolodex. Ans. 9–11 (*see supra* 3–4, Examiner’s findings). Claim 1’s preamble recites the invention as “finding one or more targets for a particular user.” Claim 1’s body recites this search for a target as searching records that include “users who are not primary connections of the particular user.” Further, all recited operations are directed to these ends.

Secondly, we agree the foregoing human activity is analogous to the judicially-recognized human activity (abstract idea) of collecting, recognizing, and storing information (*see supra* 3–4, Examiner’s findings), e.g., as in *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Association*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). Claim 1’s operations receive a search, identify data including records of users lacking a primary connection to the particular user, search the data, and return a target. We find no material difference between this claimed activity and collecting information (claimed receiving of the search and data), recognizing

information (claimed identifying of the user, secondary connections, and target), and storing information (claimed returning of the target).

Claim 1 also requires organizing of the data and search—namely identifying a “first community” that includes the “particular user” and “users who are not primary connections” thereof, identifying therein a “first plurality” of connections, and searching the first plurality for the target record. Adding such categorical organization to the foregoing human activity (e.g., to recognizing and searching information) is, however, also a judicially-recognized human activity. *See Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017);³ *see also Cyberfone Sys.*,

³ *Intellectual Ventures* explains:

[T]he invention is drawn to the abstract idea of “creating an index and using that index to search for and retrieve data.” J.A. 63. . . . This type of activity, i.e., organizing and accessing records through the creation of an index-searchable database, includes longstanding conduct that existed well before the advent of computers and the Internet.

We have previously held other patent claims ineligible for reciting similar abstract concepts that merely collect, classify, or otherwise filter data. For example, in *In re TLI Communications LLC Patent Litigation*, we concluded that the concept of classifying data (an image) and storing it based on its classification is abstract under step one. [*TLI Communications LLC Patent Litigation*,] 823 F.3d 607, 611. In *Content Extraction*, we similarly held that the concept of data collection, recognition, and storage abstract as well. 776 F.3d at 1347. More recently, in *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, we held that a claim to a “content filtering system for filtering content retrieved from an Internet computer network” was directed to an abstract idea. 827 F.3d 1341, 1348–49 (Fed. Cir. 2016). Here, the claimed creation of

LLC v. CNN Interactive Grp., Inc., 558 F. Appx. 988, 992 (Fed. Cir. 2014) (nonprecedential) (Abstract idea of “using categories to organize, store, and transmit information.”); Final Act.4 (“Using categories to organize, store, and transmit information.”) (*see supra* 3–4, Examiner’s findings).

Thirdly, we agree claim 1’s additional elements—that is, the claimed use of computer technology—merely implement the foregoing human activity via conventional technology. *See Smart Systems Innovations*, 873 F.3d at 1371 (“[M]erely invoke generic processes and machinery.”) (*see also supra* 3–4, Examiner’s findings). Even Appellants’ Specification indicates the argued improvement of identifying new contacts is not a technological improvement, but rather an activity of seeking “introduc[tions] . . . through a shared connection, such as a common friend,” conducted before the availability “electronic forms of communication and on-line social networks.” Spec. ¶¶ 3–4. Further, the Specification indicates the invention merely leverages known databases for this purpose and, particularly, to monitor connections over known forms of electronic communication and social networking. *Id.* ¶ 6. The record thus evidences that the invention’s use of computer technology merely adds greater speed and efficiency. *See CLS Bank*, 717 F.3d at 1286 (“[G]eneric computer functionality to lend speed or efficiency.”).

Appellants argue the Examiner does not address the argued improvement of “identifying users who are more than one degree of separation away from a particular user using community information.”

an index used to search and retrieve information stored in a database is similarly abstract.

Intellectual Ventures, 850 F.3d at 1327.

App. Br. 20; *see also* Reply Br. 12 (“[A] set of Rolodex cards . . . is no analog for the recited . . . community data.”). We are unpersuaded for each of two reasons.

First, the argument is not commensurate with the claim scope. *See Intellectual Ventures*, 838 F.3d at 1322, (“The district court erred in relying on technological details set forth in the patent’s specification and not set forth in the claims to find an inventive concept.”) (citing *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) (“[T]he important inquiry for a [section] 101 analysis is to look to the claim.”)). Claim 1 does not require identifying of secondary connections, i.e., users connected to the particular user by two or more degrees of separation. Claim 1 requires identifying a first plurality of users that are members of a first community including “users who are not primary connections,” and comparing search criteria to a first plurality of records associated with the first plurality of users. Under a broadest reasonable interpretation, these limitations require identifying and searching of records that include users not having a primary connection to the particular user.

Second, even assuming *arguendo* claim 1 requires an identifying and searching of secondary connections, the Examiner finds this activity analogous to the human activity of sharing contacts, e.g., friends sharing Rolodexes to acquire new contacts from one another. *See supra* 3–4 (Examiner’s findings). We agree, and find support in Appellants’ disclosure that the invention leverages databases to improve these introductions of contacts “through a shared connection, such as a common friend, [that occurred] before electronic communication and social networks.” Spec. ¶¶ 3–6. The Examiner also finds this human activity analogous the

judicially-recognized human activity of collecting, recognizing, organizing and storing information. *See supra* 3–4, Examiner’s findings. We agree and find support in *Content Extraction and Intellectual Ventures*, for the reasons discussed above. *See supra* 7–8, *fn.* 4.

Appellants also argue: “[I]t is clear error to assert that the pending claims are directed to human activity when all the steps of Claims 1, 8, and 15 are performed by one or more computing devices.” App. Br. 21; *see also id.* at 23 (arguing no claim step “involves a person”); and Reply Br. 11. We are unpersuaded. To the extent Appellants argue a computer-implemented activity cannot constitute a judicially-recognized human activity, Appellants misapprehend the controlling precedent. Rather, it is well settled that claimed computer systems can be directed to “a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.”

Smartflash LLC v. Apple Inc., 680 F. Appx. 977, 982 (Fed. Cir. 2017) (nonprecedential) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016) and parenthetically addressing other computer-implemented human activity),⁴ *cert. denied*, *Kun v. State Bar of California*, 138 S.Ct. 687 (2018).

⁴ *Smartflash* found a claimed processor and code directed to a human activity and patent-ineligible. *Smartflash*, 680 F. Appx. at 983. *Smartflash* also provides the following parenthetical description of four published cases addressing whether a claimed computer-implemented system was directed to human activity.

[C]ompare *Enfish, LLC v. Microsoft Corp.*, 822 F.3d[] at 1336–37 (finding computer-implemented system for improving computer search and retrieval systems using self-referential tables patent-eligible), with *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (finding

Appellants also argue: “Logically, limitations that are so specific as to distinguish all art of record cannot properly be deemed to be so generic as to qualify as a ‘generic computer function.’” App. Br. 12 (emphasis omitted); *see also id.* at 18 (“[A]ny situation in which a claim is held to satisfy the inventiveness standard of 103 and fail the inventiveness standard of [section] 101 is clearly erroneous.”), and 19. We are unpersuaded. To the extent Appellants argue claim 1 necessarily recites an inventive concept based on the claim’s alleged novelty and non-obviousness over the prior art, Appellants misapprehend the controlling precedent. Although *Alice’s* second step is characterized as a search for an “inventive” concept, the analysis is not an evaluation of novelty or non-obviousness. Rather, second step is a search for “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*, 134 S.Ct. at 2355. A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. 90.

computer-implemented system for “using advertising as a currency [on] the Internet” to be ineligible), *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1352, 1355 (Fed. Cir. 2014) (finding computer-implemented system for guaranteeing performance of an online transaction to be ineligible), and *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011) (finding computer-implemented system for “verifying the validity of a credit card transaction over the Internet” to be ineligible).

Smartflash, 680 F. Appx. at 983.

Appellants also argue: “Since all of the claims in the present case, including the dependent claims, have been rejected under [section] 101, the actual list of ‘additional elements’ is far longer than those simply contained in independent Claims 1, 8, and 15.” App. Br. 26. We are unpersuaded for each of two reasons. First, per 37 C.F.R. § 41.37(c)(1)(iv), we have selected claim 1 as representative of all claims.⁵ Second, the Examiner’s failure to address a claim is not an appealable matter, but rather addressed by a petition to compel an explanation of the adverse action. *See Ex Parte Frye*, 94 U.S.P.Q.2d 1072, 1077–78 (PTAB 2010) (“Petitionable Matters” section); 37 C.F.R. § 1.181(a)(1) (Petition from an examiner requirement).; 37 C.F.R. § 1.104 (“Nature of examination” includes requirement to provide “reasons for any adverse action . . . in an Office action.”).

For the foregoing reasons, we are unpersuaded of error in the rejection of representative claim 1. We accordingly sustain the rejection of claims 1–18 under 35 U.S.C. § 101.

⁵ The Appeal Brief quotes claim 15’s language, but does not address the alleged additional elements on the merits. App. Br. 16, 25; *see also* Reply Br. 11. In the Reply Brief, Appellants additionally argue: “[I]n Claim 15, one problem addressed is choosing between a system or a client in identifying secondary connections of a particular user. The particular solution is” Reply Br. 15. These arguments were waived. *See Ex parte Borden*, 93 USPQ2d 1473, 1473–74 (BPAI 2010) (informative) (Absent a showing of good cause, the Board does not address Reply Brief arguments that could have been made in the Appeal Brief.).

Appeal 2017-005271
Application 14/675,164

DECISION

We affirm the rejection of claims 1–18.

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