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#### UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHIRAG K. BARHATE and MAHESH S. PARADKAR

Appeal 2017-004249 Application 13/483,132 Technology Center 3600

Before JOHN A. JEFFERY, ERIC S. FRAHM, and BETH Z. SHAW, *Administrative Patent Judges*.

FRAHM, Administrative Patent Judge.

# DECISION ON APPEAL STATEMENT OF THE CASE

Appellants<sup>1</sup> appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm the rejections of claims 1–20 under 35 U.S.C. §§ 101 and 103(a).

Appellants' application relates to "the field of data handling and, more particularly, to using the inheritance of professional-social network information to facilitate organizational position changes." Spec. ¶ 2; see

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<sup>&</sup>lt;sup>1</sup> According to Appellants, the real party in interest is International Business Machines, Inc. App. Br. 3. This case is related to the appeal in U.S. Patent Application No. 13/425,608 (Appeal No. 2017-004263), which has an identical inventive entity and real party in interest as the instant case.

also Title ("USING THE INHERITANCE OF PROFESSIONAL-SOCIAL NETWORK INFORMATION TO FACILITATE ORGANIZATIONAL POSITION CHANGES").

Appellants claim methods for (i) maintaining social networks (method claim 1); preserving tacit knowledge in an organization (method claim 14); and (iii) enhancing the productivity of an organization (method claim 20), that each prevent the loss of "tacit information." See Spec. ¶¶ 3, 4. Appellants describe "tacit information" in the following manner:

- (1) "Tacit information are those subtle data nuggets that members learn over time like who is the best supplier to order from or what font your supervisor prefers for documents." Spec. ¶ 3.
- (2) "The tacit knowledge comprises information regarding job functions associated with the organizational position associated by the member (e.g.[,] para[s]. 0002, 0025-0028)." App. Br. 8. This can include conceptual social network information, such as people or contacts needed in order to perform job duties in a professional, social network. See Spec. ¶¶ 25–27, 41, 42.
- (3) Tacit information can include electronic communications, and "can represent items, including, but not limited to, email messages, instant messages, social network postings, text messages, shared application messages and/or data, electronic documents, Web forms, and the like." Spec. ¶ 28.
- (4) Tacit information can also be senders and recipients of electronic communications, or other organizational data. *See* Spec. ¶ 75. Appellants further disclose and claim ignoring social electronic communications by removing them from the analysis, and only basing the

analysis on work-related communications. *See* Spec. ¶¶ 73, 74; Fig. 4, step 415 ("[i]gnores electronic communication"); claims 1, 14, 20.

Claim 1 is illustrative of the subject matter on appeal, and is reproduced below, with bracketed lettering and emphases added to disputed portions of the claim, as follows:

1. A method for maintaining professional-social networks comprising:

one or more computing devices, executing program instructions stored in a non-transitory medium, automatically creating a professional-social network for each member of an organization by a professional-social network tool based upon electronic communication analysis, wherein each member has a organizational position uniquely-identified within model of the organization, organizational wherein professional-social network is comprised of nodes representing contacts with whom a member interacts with to perform job functions defined for an organizational position associated with the member, wherein said nodes are connected to the member by relationships that express an interaction context, and, wherein a contact represents at least one of a person, a group of people, and another organization;

at least one of the one or more computing devices segregating professional communication of the member and non-professional communication of the member from the electronic communication analysis, wherein the professional communication comprises tacit knowledge of the member, and [A] wherein the non-professional communication is automatically removed from the electronic communication analysis;

at least one of the one or more computing devices automatically converting the tacit knowledge of the member into an electronic form based on the professional communication of the member, [B] wherein the tacit knowledge comprises information regarding job functions associated with the organizational position associated by the member;

at least one of the one or more computing devices associating the converted tacit knowledge of the member with the organizational position held by the member;

at least one of the one or more computing devices, in response to a change from a first organizational position to a organizational second position for a specified member, dissociating the specified from the member professional-social network of the first organizational position, wherein the first organizational position represents organizational position currently held by the specified member the second organizational position represents organizational position that the specified member is being moved into; and

at least one of the one or more computing devices associating the specified member with the professional-social network of the second organizational position, wherein tacit information contained within the professional-social network for performing the job functions of the second organizational position is inherited by the specified member.

## **REJECTIONS**

The Examiner made the following rejections:

- (1) The Examiner rejected claims 1–20 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter, because claims 1, 14, and 20 are drawn to (a) a fundamental economic activity (e.g., maintaining social networks), which is an abstract idea, and can be performed by a human using pen and paper; and (b) managing interpersonal activities, which can be considered methods of organizing human activity (Ans. 36–45).
- (2) The Examiner rejected claims 1–19 under 35 U.S.C. § 103(a) as being unpatentable over either (a) the base combination of Skarin (US 2011/0072052 A1; published March 24, 2011), Burritt (US 2012/0110083 A1; published May 3, 2012), Dunn (US 2012/0102114 A1; published April

- 26, 2012), and Sood (US 2011/0173274 A1; published July 14, 2011), or (b) the base combination in view of various other references. Final Act. 4–32; Ans. 2–30.
- (3) The Examiner rejected claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Skarin, Prabhakar Raghavan, *Social Networks:*From the Web to the Enterprise, IEEE INTERNET COMPUTING, 91–94 (2002) (hereinafter, "Raghavan"), Sood, and Burritt. Final Act. 32–36; Ans. 31–35.

#### Principal Issues on Appeal

Based on Appellants' arguments in the Appeal Brief (App. Br. 12–18) and the Reply Brief (Reply Br. 2–4), the following principal issues are presented on appeal:

- (1) Did the Examiner err in rejecting claims 1–20 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter, because representative claim 1, taken as a whole in light of the Specification, is directed to an abstract idea or combination of abstract ideas implemented on generic computer equipment without reciting an element or combination of elements that is (are) significantly more than the abstract idea(s) itself (themselves)?
- (2) Did the Examiner err in rejecting claims 1–20 under 35 U.S.C. § 103(a) over the base combination of Skarin, Burritt, and Sood because Sood fails to teach or suggest automatic removal as in limitation [A] and/or Skarin fails to teach or suggest tacit knowledge as in limitation [B], as recited in representative claim 1, and commensurately recited in independent claim 20?

#### **ANALYSIS**

Issue (1): Patent-Ineligible Subject Matter

In *Alice*, the Supreme Court reiterated the two-step framework set forth in Mayo Collaborative Services v. Prometheus Laboratories, Inc., 566 U.S. 66 (2012), for determining whether the claimed subject matter is judicially-excepted from patent eligibility under § 101. Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347, 2355 (2014). Assuming that a claim nominally falls within one of the statutory categories of machine, manufacture, process, or composition of matter, the first step in the analysis is to determine if the claim is directed to a law of nature, a natural phenomenon, or an abstract idea (judicial exceptions). Alice, 134 S. Ct. at 2355. For example, abstract ideas include, but are not limited to, fundamental economic practices, methods of organizing human activities, an idea of itself, and mathematical formulas or relationships. *Id.* at 2355–57. If the claim is directed to a judicial exception, such as an abstract idea, the second step is to determine whether additional elements in the claim "transform the nature of the claim' into a patent-eligible application." *Id.* at 2355 (quoting Mayo, 566 U.S. at 78). This second step is described as "a search for an "inventive concept"—i.e., an element or combination of elements that is '... significantly more than ... the [ineligible concept] itself." Id. at 2355 (alteration in original) (quoting Mayo, 566 U.S. at 72– 73).

"[T]he first step in the *Alice* inquiry . . . asks whether the focus of the claims is on the 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, 1335—36 (Fed. Cir. 2016). "The abstract idea exception prevents patenting a result where 'it matters not by what process or machinery the result is accomplished." *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 113 (1854)). "We therefore 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." *McRO*, 837 F.3d at 1314.

Further, as our reviewing court noted in *McRO*, it is important to determine "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." 837 F.3d at 1314. In other words, a claim that defines the way by which a computer-related result is achieved is distinguishable from a patent-ineligible claim that simply describes a result.

The second step in the *Alice* analysis requires a search for an "inventive concept" that "must be significantly more than the abstract idea itself, and cannot simply be an instruction to implement or apply the abstract idea on a computer." *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (2016) (quoting *Alice*, 134 S. Ct. at 2355). There must be more than "computer functions [that] are 'well-understood, routine,

conventional activit[ies]' previously known to the industry." *Alice*, 134 S. Ct. at 2359 (second alteration in original) (quoting *Mayo*, 566 U.S. at 73).

## Step One of Alice

Regarding step one of *Alice*, *Enfish* held that the "directed to" inquiry asks not whether "the claims *involve* a patent-ineligible concept," but instead whether, "considered in light of the specification, . . . 'their character as a whole is directed to excluded subject matter." *Enfish*, 822 F.3d at 1335 (internal citation omitted). Regarding improvements to computer-related technology, the Court in *Enfish* held as follows:

We do not read *Alice* to broadly hold that all improvements in computer-related technology are inherently abstract and, therefore, must be considered at step two. Indeed, some improvements computer-related technology in appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like. Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract and therefore only properly analyzed at the second step of the Alice analysis. Software can make nonabstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route. We thus see no reason to conclude that all claims directed to improvements in computerrelated technology, including those directed to software, are abstract and necessarily analyzed at the second step of Alice, nor do we believe that Alice so directs. Therefore, we find it relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the Alice analysis.

*Enfish*, 822 F.3d at 1335. Thus, we determine whether the claims "focus on a specific means or method that improves the relevant technology" or are "directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." *McRO*, 837 F.3d at 1314.

We agree with the Examiner (Ans. 36–41) that claim 1 is drawn to a fundamental economic activity (maintaining a social network), which is an abstract idea.

Claims 1, 14, and 20 require the functional results of "automatically creating a professional-social network," "segregating professional communication . . . compris[ing] tacit knowledge," "automatically converting the tacit knowledge," "associating the converted tacit knowledge," "dissociating . . . [a] specified member from the professional-social network" under certain conditions, and "associating the specified member" under other certain conditions, but do not sufficiently describe how to achieve these results in a non-abstract way (see, e.g., claim 1).

Affinity Labs of Tex., LLC v. DIRECTV, LLC, 838 F.3d 1253, 1258 (Fed. Cir. 2016) (holding that claims were directed to an abstract idea where they claimed "the function of wirelessly communicating regional broadcast content to an out-of-region recipient, not a particular way of performing that function").

For example, independent claim 1 merely recites "[a] method for maintaining professional-social networks" (claim 1) that is performed by generic computer elements ("one or more computing devices, executing instructions stored in a non-transitory medium") for their basic functions and, thus, do not transform the claimed abstract idea into eligible subject matter under *Alice. See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (finding that there is no inventive concept in using a generic computer "to perform well-understood, routine, and conventional activities commonly used in industry").

Thus, we conclude claim 1 is drawn to little more than automating the abstract idea of maintaining a professional-social network by performing the operations set forth in claim 1, which we conclude is a fundamental economic practice and method of organizing human activities and, therefore, constitutes patent-ineligible subject matter. *See Alice*, 134 S. Ct. at 2357; *Bilski v. Kappos*, 561 U.S. 593, 611 (2010); *Enfish*, 822 F.3d at 1335 ("fundamental economic and conventional business practices are often found to be abstract ideas, even if performed on a computer").

Appellants do not rebut (*see generally* Reply Br. 2–4) the Examiner's conclusion that the claims are directed to a fundamental activity that is an abstract idea for commercial purposes—and that such an abstract idea or ideas is/are similar to other concepts found to be abstract. *See* Ans. 41 (citing *Cyberfone Systems, LLC v. CNN Interactive Group, Inc.*, 558 F. App'x 988, 991–92 (Fed. Cir. 2014)) (concluding collecting information, then separating and transmitting that information according to its classification is an abstract idea); *SmartGene, Inc. v. Adv. Bio. Labs., SA*, 555 F. App'x 950, 954 (Fed. Cir. 2014) (invalidating a claim to computerized application of a mental process for treating medical patients that "doctors do routinely"). Appellants' Reply Brief neither discusses nor disputes the Examiner's comparison of the instant claims on appeal to those found ineligible in *Cyberfone* and/or *SmartGene*.

Further, we note that examining earlier cases can have a role in deciding whether a concept that claims are found to be directed to is an abstract idea. *See Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) ("Instead of a definition [for what an 'abstract idea' encompasses], then, the decisional mechanism courts now apply is to

examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided").

We note the similarity of claim 1 on appeal to the concept found ineligible in Electric Power Group, LLC v. Alstom S.A., 830 F.3d 1350, 1351–53 (Fed. Cir. 2016) (collecting information, analyzing it, and displaying results is an abstract idea). In this regard, the claims of the instant application are similar to the claims in *Electric Power*, which did "not go beyond requiring the collection, analysis, and display of available information in a particular field, stating those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology." Electric Power, 830 F.3d at 1351. Specifically, our reviewing Court held that "collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas" and that "analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category." Id. at 1353–54 (citations omitted).

Our conclusion that claims 1, 14, and 20 are directed to an abstract idea is supported by analogy to the Federal Circuit's decision in *Electric Power*, where the court concluded claims that focused on "gathering and analyzing information of a specified content, then displaying the results," to be directed to an abstract idea. 830 F.3d at1354.

Here too, Appellants' claims 1, 14, and 20 recite no more than a generic processor and storage to implement the claimed functions of gathering and analyzing information.

Having concluded the claims are directed to an abstract idea that is patent-ineligible, we turn to step two of the *Alice* test.

## Step Two of Alice

Regarding step two of *Alice*, Appellants' contentions that (i) the Examiner has "read out limitations that weigh against a finding in ineligibility;" and (ii) "[o]ne claim limitation missing from the rejection's consideration is 'creating a professional-social network tool based upon electronic communication analysis" (see Reply Br. 2), are unpersuasive. Notably, the term "professional-social network tool" does not appear in any of claims 1, 14, and/or 20. Claims 1, 14, and 20 on appeal merely recite generic computer components, such as "one or more computing devices" (claim 1), "a data store" and "a computer-implemented system" (claims 14 and 20). And, although paragraph 29 of Appellants' Specification describes using a tool implemented on a computing device, the device is merely generic and performs generic functions (collecting, categorizing, acting on data). The same can be said of Appellants' Figure 2, showing computing devices 210 and 220 and data store 280 in "a system that utilizes a professional-social network tool" (Spec. ¶ 12). See App. Br. 8, Summary of Claimed Subject Matter (supporting the "one or more computing devices" of claim 1 as elements 210 and 220 shown in Figure 2); see also Spec. ¶ 50 (describing computing devices 210 and 220 as "a variety of computing devices capable of supporting operation of the communication user interface 215 and communicating with the corresponding communications application 240 over the network 295"). Paragraphs 17 through 23 of the Specification also support our understanding that the computing device/system and data

store recited in claims 1, 14, and 20 on appeal are nothing more than standard, generic computer components.

Appellants' argument that "[n]o evidence is given that these elements are conventional and well known" (Reply Br. 3), referring to the analysis and separation of non-professional communications from professional communications, is also unpersuasive. The Drawings, in particular Figure 2, support *ignoring* electronic communications when they are not work-related (Fig. 2, step 415; Spec. ¶ 74). The Specification does not provide detailed explanation as to how the communications are separated, and simply states that "[i]t can be determined if an electronic communication is work-related in step 410," wherein it can ensured that "social . . . communications are not included in a member's professional-social network" (Spec. ¶ 73).

Considering the claimed elements individually and as an ordered combination, the claims do no more than simply instruct the practitioner to implement the abstract idea on a generic computer or processer. *Alice*, 134 S. Ct. at 2359; *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333–34 (Fed. Cir. 2012) ("Simply adding a 'computer aided' limitation to a claim covering an abstract concept, without more, is insufficient to render . . . [a] claim patent eligible") (internal citation omitted). And, merely making the practice of an abstract idea more effective by implementing the idea on a computer does not suffice to meet the inventive concept requirement of *Alice*. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) ("[R]elying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible").

In sum, Appellants have not demonstrated their claims provide a "solution . . . necessarily rooted in computer technology in order to

overcome a problem specifically arising in the realm of computer networks," as explained by the Federal Circuit in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014), or provide an "unconventional technological solution . . . to a technological problem" that "improve[s] the performance of the system itself," as explained in *Amdocs (Israel) Ltd.*, 841 F.3d at 1300, 1302.

With regard to claims 5–9, Appellants' contention that these claims "recite in further detail regarding analysis of the electronic communication and how the network is modified" (Reply Br. 3) is unpersuasive. Although claims 5–9 recite "modifying the professional-social network" (claim 5), "identifying differences" (claim 8), determining an importance (claim 8), "adjusting the current state of the professional-social network" (claim 8), and "capturing basic information" (claim 9), these claims do not specify, or provide further detail as to how the network is modified. Thus, these steps are nothing more than the organization of human activity to accomplish a fundamental economic activity (e.g., maintaining a social network), which is an abstract idea.

We are, therefore, not persuaded the Examiner erred by rejecting as patent-ineligible independent claims 1, 14, and 20, as well as claims 2–13, and 15–19 depending respectively therefrom.

## Issue (2): Obviousness

In formulating the obviousness rejection, the Examiner relies upon (i) Skarin (Ans. 48–49 (citing Skarin ¶¶ 54, 56, 79)) as teaching or suggesting tacit knowledge; and (ii) Sood (Ans. 47–48 (citing Sood ¶¶ 30, 127)) as teaching or suggesting automatically removing non-professional communications, as recited in claims 1, 14, and 20. We agree with the

Examiner's findings as to the individual references, and one of ordinary skill in the art would predictably desire to remove non-professional communications from analysis in determining what professional communication/information should be passed on as tacit knowledge, as claimed.

## Limitation [A]: Sood

Limitation [A] of claim 1 recites, "wherein the non-professional communication is *automatically removed* from the electronic communication analysis" (emphasis added). Claim 20 similarly recites, "*automatically removing* the non-professional communication from the analysis" (emphasis added). The Examiner finds, and we agree, that Sood (¶¶ 30, 127) teaches or suggests automatic removal as set forth in limitation [A] of claim 1 (*see* Final Act. 6; Ans. 4–5, 47–48), and as similarly set forth in claim 20 (*see* Final Act. 36; Ans. 34, 50).

Specifically, Sood discloses that (i) "the user may select to *remove* certain email communications from the social network analysis if he/she feels that that specific dataset of email *is sensitive or personal*" (¶ 30) (emphases added); and (ii) contacts and emails can be marked as private by the user, and '[t]hose emails[, e.g., from a "spouse' email address,"] will be excluded from the dataset to be analyzed" (¶ 127).

Appellants admit Sood teaches that a user selects email for removal from analysis, and argue only that Sood fails to teach *automatically* removing the emails (App. Br. 15–16).<sup>2</sup> However, we agree with the

<sup>&</sup>lt;sup>2</sup> In so much as Appellants argue that automating a manual operation (such as in this case having a user manually remove personal emails from analysis) is patentable on that basis alone, we note that providing an automatic way to replace a manual activity, which accomplishes the same result, is not

Examiner (Ans. 47–48) that "Sood teaches that once a user indicates that certain emails or contacts [are] private[,] they are automatically excluded from the data set to be analyzed (see at least Sood para. 127)," and "[a]s such, Sood teaches when the nature of the electronic communication is non-professional, <u>automatically</u> removing the electronic communication from the analysis by the professional social network tool as required by Claim 1" (Ans. 48). And, notably, Appellants' Reply Brief neither discusses nor disputes the Examiner's amplified reasoning found at pages 47–48 of the Answer, and just discussed above.

In view of the foregoing, Appellants' contentions (App. Br. 15–17) that Sood fails to disclose the automatic removal of non-professional or personal emails from analysis as recited in claims 1 and 20, are unpersuasive. This is especially true when taken with (i) the understanding of one of ordinary skill in the art that removing more than several emails (e.g., 100 or more) manually may be time consuming and undesirable when computers could be instructed to perform such action more efficiently (i.e., with one user instruction to remove 100 or more emails from analysis at once); and/or (ii) Sood's disclosure of the desirability of establishing "security, privacy[,] and legal policies" (¶ 123) by "[e]xcluding emails that are considered to be 'sensitive', 'confidential', 'deleted' or involved in 'litigation'" (¶ 128).

sufficient to distinguish over the prior art. *In re Venner*, 262 F.2d 91, 95 (CCPA 1958); *see also Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) ("Applying modern electronics to older mechanical devices has been commonplace in recent years").

## Limitation [B]: Skarin

Limitation [B] of claim 1 recites, "wherein the *tacit knowledge* comprises information regarding job functions associated with the organizational position *associated by* the member" (emphases added). Independent claim 14 similarly recites, "wherein the *tacit knowledge* comprises information regarding job functions associated with an organizational position *held by* the member" (emphases added). And, remaining independent claim 20 more broadly and simply recites "tacit knowledge" without any explicit definition. The Examiner finds, and we agree, that Skarin teaches or suggests tacit knowledge as recited in limitation [B] of claim 1 (Final Act. 7; Ans. 5–6, 48–49), as similarly recited in claim 14 (Final Act. 27–28; Ans. 49), and as more broadly recited in claim 20 (Final Act. 34–35; Ans. 50).

Specifically, we agree with the Examiner's amplified reasoning and findings regarding Skarin found at pages 48 through 49 of the Answer. This includes determining (Ans. 49) that Skarin (i) teaches "entity interaction data will be assembled from email messages and other[] sources," and this "data is used to create both entity and interaction profiles" (¶ 56); and (ii) "[1]ooking at patterns of interactivity—the social network of an organization—provides insight into the status and health of an organization, as those patterns reflect dynamics not easily discerned through casual observation" (¶ 79). Furthermore, we agree with the Examiner that (i) paragraph 54 of Skarin teaches "[t]he entity profile system and methods of its use are able to increase the efficiency of organizations by profiling and optimizing the patterns of creative interaction in an organization" by building knowledge of informal and potential networks; and (ii) the

knowledge or "entity interaction data" (*see* ¶ 54) can be derived from interactions "such as e-mails, instant messaging, time cards, phone calls, web conferences and other collaborative work environments that generate data representing latent structural information about the knowledge, social networks and tasks" (¶ 79) (emphases added). Ans. 48. And, notably, Appellants' Reply Brief neither discusses nor disputes the Examiner's amplified reasoning found at pages 48–49 of the Answer, and just discussed above.

In view of the foregoing, Appellants' contention (App. Br. 16) that Skarin's paragraph 54 only teaches indexing knowledge of an entity, and not where the information is acquired or from what source, is unpersuasive. This is especially true when taken with (i) the understanding of one of ordinary skill in the art that knowledge of an entity such as a business organization would include interaction data between employees, as well as job duties/descriptions of employees; and/or Skarin's disclosure that (i) an entity can include an "organization" (¶ 41); and (iii) "entity knowledge" or "the organization's knowledge" can, thus, be accurately maintained based on "knowledge of informal and potential networks" (¶ 54).

# **Summary**

We are, therefore, not persuaded the Examiner erred in rejecting as obvious representative claim 1, as well as claims 2, 10, and 12 grouped therewith. For similar reasons, and because Appellants rely on the arguments presented as to claim 1 for the patentability of claims 3–9, 11, and 13–20, we are also not persuaded the Examiner erred in rejecting as obvious claims 3–9, 11, and 13–20.

## **CONCLUSIONS**

- (1) The Examiner did not err in rejecting claims 1–20 under 35 U.S.C. § 101 as being directed toward patent-ineligible subject matter.
- (2) The Examiner did not err in rejecting claims 1–19 under 35 U.S.C. § 103(a) over the base combination of Skarin, Burritt, Dunn, and Sood.
- (3) The Examiner did not err in rejecting claim 20 under 35 U.S.C. § 103(a) over the combination of Skarin, Raghavan, Burritt, and Sood.

## **DECISION**

We affirm the Examiner's decision to reject claims 1–20 (i) under 35 U.S.C. § 101 as being drawn to patent ineligible subject matter; and (ii) under 35 U.S.C. § 103(a) as being obvious over the base combination of Skarin, Burritt, and Sood, taken with either Dunn (claims 1–19), or Raghavan (claim 20).

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. § 41.50(f).

#### **AFFIRMED**