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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NICHOLAS GALBREATH and MIRKO PREDOSIN

Appeal 2018-008240
Application 13/309,824
Technology Center 2100

Before THU A. DANG, ELENI MANTIS MERCADER, and
JASON J. CHUNG, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from a rejection of claims 1–3, 5, 7, 10–19, and 22–26. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ The real party in interest is Facebook, Inc. App. Br. 3.

CLAIMED SUBJECT MATTER

The claims are directed to systems and methods for managing product location information. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A computer-implemented method comprising, by one or more processors associated with one or more computing systems:

receiving, from a client device of a first user of an online social network, a request for a user profile of a second user of the online social network;

retrieving, using the one or more processors and in response to the request, information from a user profile database, the information comprising user profile data of the second user,

wherein a social graph representing the online social network comprises a plurality of nodes and edges, each node representing one of a plurality of users of the online social network, each edge representing a relationship between two of the plurality of users and establishing a degree of separation between each of the plurality of users based on the social graph, wherein the first user corresponds to a first node of the plurality of nodes and the second user corresponds to a second node of the plurality of nodes;

determining, using the one or more processors, a profile format for the user profile data of the second user based on a visibility preference of the second user and a degree of separation between the first node and the second node within the social graph, the visibility preference of the second user being included with the information retrieved from the user profile database, and the visibility preference of the second user indicating a specified degree of separation between the second node and another node at which the user is permitted to view the user profile data of the second user in a full profile format; and

sending, to the client device for display to the first user, information representing the user profile data of the second user, wherein:

if the degree of separation between the first node and the second node is less than or equal to the specified degree of separation indicated in the visibility preference of the second user, then sending the information using a full profile format; and

if the degree of separation between the first node and the second node is greater than the specified degree of separation indicated in the visibility preference of the second user, then sending the information using a mini profile format.

REJECTIONS

Claims 1–3, 5, 7, 10–19, and 22–26 stand rejected under 35 U.S.C. § 101 as being directed to a judicial exception without significantly more.

OPINION

Appellant argues that the claims are focused on a particular application in an online social network of receiving information relating to a social graph, and determining an appropriate format to display to users based on a visibility preference and degrees of separation between nodes in the social graph. App. Br. 10. In addition to determining an appropriate format to display, the claims also require sending the formatted information to a display of another user. *Id.*

According to Appellant, as recited in the claims, one part of the received information is a user interacting with the online social graph and setting a visibility preference. App. Br. 11. This received information is not then analyzed and displayed in graphical form, which would be analogous to *Electric Power Group*, instead the information is used for additional examination to identify different formats, and then ultimately sending instructions for displaying the formatted information to a second user. *Id.*

According to Appellant, claim 1 recites a specific method of tracking online interactions and degrees of separation of a particular user of an online social network, determining information about the tracked interactions to select content that a particular user may view based on a degree of separation, and sending the formatted content to a user's client device for display. *Id.* at 12. The application recites a specific improvement in network operation and takes advantage of the availability of social networking graph information to provide more relevant information to its users. *Id.* In other words, the claim language recites the invention's specific improvement to computer technology and overcomes a problem specifically arising in the realm of computer networks. *Id.* 12–13.

Appellant argues that tracking online interactions and degrees of separation of a particular user of an online social network, determining information about the tracked interactions to select content that a particular user may view based on a degree of separation, and sending the formatted content to a user's client device for display requires that a machine play “a significant part in permitting the claimed method to be performed.” *Id.* at 13.

Appellant further argues that the claims contain an inventive concept sufficient to transform the claims into patent-eligible subject matter. *App. Br.* 14–19. In particular Appellant argues that, similar to *BASCOM*, the claims “recite[d] a specific, discrete implementation of the abstract idea of filtering content,” because “the patent describes how its particular arrangement of elements is a technical improvement over prior art ways of filtering such content.” *Id.* at 15–16 (citing *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016)). Here,

consistent with *BASCOM*, the claims recite a specific, discrete implementation of tracking online interactions and degrees of separation of a particular user of an online social network, determining information about the tracked interactions to select content that a particular user may view based on a degree of separation, and sending the formatted content to a user's client device for display. *Id.*

We are persuaded by Appellant's argument. An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (internal quotation marks and citation omitted).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court's two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and, thus, patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611);

mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-

eligible application.” *Alice*, 573 U.S. at 221 (internal citation omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The PTO recently published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“Memorandum”). Under that guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* Manual of Patent Examining Procedure (MPEP) § 2106.05(a)–(c), (e)–(h) (9th Ed., Rev. 08.2017, Jan. 2018)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that are 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.

See Memorandum.

In the instant case, the claim 1 limitations of

receiving, from a client device of a first user of an online social network, a request for a user profile of a second user of the online social network;

retrieving, using the one or more processors and in response to the request, information from a user profile database, the information comprising user profile data of the second user, wherein a social graph representing the online social network comprises a plurality of nodes and edges, each node representing one of a plurality of users of the online social network, each edge representing a relationship between two of the plurality of users and establishing a degree of separation between each of the plurality of users based on the social graph, wherein the first user corresponds to a first node of the plurality of nodes and the second user corresponds to a second node of the plurality of nodes;

recite a method of organizing human interactions wherein upon a first user's request of a second user's profile on an online social network one or more processors retrieve information of the second user's profile.²

These limitations, as drafted, provide a process under Step 2A, prong 1 that under its broadest reasonable interpretation, recite an abstract idea.

See Memorandum.

² We note that the Examiner addressed the claimed invention categorizing the method as a mental process. *See* Ans. 3–7. Under the mental process analysis the instant claim would not be an abstract idea under Step 2A, prong 1 because the retrieving step using one or more processors and the determining step using one or more processors based on the preset visibility preference requires action by the processor that cannot be practically applied by the mind.

Because the claim recites a method of managing human interactions, we proceed to Step 2A, prong 2—i.e., we determine whether the method of organizing human activity is integrated into a practical application.

Claim 1 recites the additional limitations of

determining, using the one or more processors, a profile format for the user profile data of the second user based on a visibility preference of the second user and a degree of separation between the first node and the second node within the social graph, the visibility preference of the second user being included with the information retrieved from the user profile database, and the visibility preference of the second user indicating a specified degree of separation between the second node and another node at which the user is permitted to view the user profile data of the second user in a full profile format;
and

sending, to the client device for display to the first user, information representing the user profile data of the second user, wherein:

if the degree of separation between the first node and the second node is less than or equal to the specified degree of separation indicated in the visibility preference of the second user, then sending the information using a full profile format;
and

if the degree of separation between the first node and the second node is greater than the specified degree of separation indicated in the visibility preference of the second user, then sending the information using a mini profile format.

The claim recites a combination of additional elements including *determining using one or more processors a profile format for the user profile data of the second user based on a visibility preference of the second user and a degree of separation between the first node and the second node within the social graph*, and the visibility preference of the second user

indicating a specified degree of separation between the second node and another node at which the user is permitted to view and

*if the degree of separation between the first node and the second node is less than or equal to the specified degree of separation indicated in the visibility preference of the second user, sending the information using a full profile format; and
if the degree of separation between the first node and the second node is greater than the specified degree of separation indicated in the visibility preference of the second user, then sending the information using a mini profile format.*

See Claim 1. The claim as a whole integrates the method of managing human interactions into a practical application. Specifically, the additional elements similar to *BASCOM* recite a specific improvement over prior art systems using one or more processors wherein the claims recite a specific, discrete implementation of tracking online interactions and degrees of separation of a particular user of an online social network, determining information about the tracked interactions to select content that a particular user may view based on a degree of separation as set by the visibility preference of the second user, and sending the formatted content to a user's client device for display. *Id.*

Thus, the claim is eligible because it is not directed to the recited judicial exception (abstract idea). Accordingly, we reverse the Examiner's rejection of claims 1–3, 5, 7, 10–19, and 22–26.

DECISION

We reverse the Examiner's rejection of claims 1–3, 5, 7, 10–19, and 22–26.

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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).

REVERSED