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UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
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Ex parte TAQI JAFFRI
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Appeal 2018-001111[1]
Application 12/487,118
Technology Center 3600
_____

Before NINA L. MEDLOCK, TARA L. HUTCHINGS, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant[2] appeals under 35 U.S.C. § 134(a) from the Examiner's
Final Rejection of claims 1, 3–10, 12, 13, and 15–20, which constitute all the
claims pending in this application. We have jurisdiction under 35 U.S.C.
§ 6(b). An oral hearing was held on October 15, 2019.

We REVERSE.

CLAIMED INVENTION

Appellant's claimed invention relates generally to "location-based advertising on mobile computing devices" (Spec. ¶ 1).

Claims 1, 13, and 19 are the independent claims on appeal. Claim 1, reproduced below with bracketed notations indentation added, is illustrative of the claimed subject matter:

> 1. In an ad delivery server that is in communication with a mobile client executable on a mobile computing device and a location broker service executable on a location broker server, a method for controlling ad delivery from an ad delivery service executed on the ad delivery server to the mobile client using the location broker service, the method comprising:
> [a] receiving by the location broker service, a mobile client location signal from the mobile computing device;
> [b] determining, by the location broker service, an actual location of the mobile computing device based on the mobile client location signal;
> [c] sending, by the location broker service, a single use location use token to the mobile computing device, the location use token being a unit of data, associated with the actual location, that indicates a generalized location of the mobile computing device but does not directly indicate the actual location of the mobile computing device;
> [d] receiving from an advertiser, by the ad delivery service, a bid to purchase location-targeted ad delivery;
> [e] sending, by the ad delivery service, a mobile client location request to the mobile client;
> [f] receiving, by the ad delivery service, the location use token from the mobile client responsive to the sending of the mobile client location request to the mobile client;
> [g] sending, by the ad delivery service, the location use token to the location broker server, at which the location broker service verifies the location use token;

[h] verifying the location use token, by the location broker service, by determining whether or not the location use token sent from the ad delivery service is a location use token generated from the location broker server;

[i] receiving, by the ad delivery service, the generalized location of the mobile computing device from the location broker service, when it is determined that the location use token sent from the ad delivery service was generated from the location broker server, based on the verification of the location use token, without receiving the actual location of the mobile computing device from the location broker service by the ad delivery service; and

[j] in response to receiving the bid to purchase location-targeted ad delivery, delivering, by the ad delivery service, a location-targeted ad stored in a storage of the ad delivery server and designated for delivery to mobile computing devices at the generalized location, to the mobile computing device.

REJECTIONS[3]

1.   Claims 1, 3–10, 12, 13, and 15–20 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

2.   Claims 1, 13, and 19 are rejected under 35 U.S.C. § 112 first paragraph (pre-AIA), as failing to comply with the written description requirement.

3.   Claims 1, 13, and 19 are rejected under 35 U.S.C. § 112 second paragraph (pre-AIA), as indefinite.

4.   Claims 1, 3, 4, 8, 9, 12, 13, 15, 19, and 20 are rejected under 35 U.S.C. § 103 as unpatentable over Cone (US 2008/0045232 A1, pub. Feb. 21, 2008), Grannan et al. (US 2007/0244750 A1, pub. Oct. 18, 2007), and Marcuvitz (US 2009/0006197 A1, pub. Jan. 1, 2009).

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[3] We treat the Examiner's inclusion of canceled claims 2, 11, and 14 among the claims subject to rejection as an oversight.

5.   Claims 5–7, 10, and 16–18 are rejected under 35 U.S.C. § 103 as unpatentable over Cone, Grannan, Marcuvitz, and Bajpai et al. (US 2010/0069092 A1, pub. Mar. 18, 2010).

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. 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).

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*. *Alice*, 573 U.S. 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 id.* 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*, 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

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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 183 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Gottschalk*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

If the claim is "directed to" an abstract idea, we turn to the second step of the *Mayo/Alice* 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*, at 221 (quotation marks 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.* (alterations in original) (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, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance"). 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, i.e., that "apply, rely on,

or use 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 Guidance, 84 Fed. Reg. at 53; *see also* MPEP §§ 2106.05(a)–(c), (e)–(h).

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 is 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 2019 Revised Guidance, 84 Fed. Reg. at 56.

With regard to the first step of the *Mayo/Alice* framework, the Examiner states that "at its core" independent claim 1 is "directed to location-based advertising" (Ans. 5; Final Act. 5). The Examiner states that "[t]he advertising activity of the claimed method aligns strongly with the long-standing concept of enabling the success (or improving the chances of success) of a commercial transaction or commercial exchange between two or more parties" (Ans. 6; Final Act. 5), and as such, "represents a fundamental economic practice long prevalent in our system of commerce (a building block in the modern economy) (*Alice Corp.*, *Bilski*)" (Ans. 6). The Examiner further states that independent claim 1

> comprise[s] steps of: collecting location data, bid data and
> associated advertisement data; analyzing location and bid
> information, and selecting an advertisement for display on the
> user device. These claim elements mirror activities of
> "collecting information, analyzing it, and displaying certain
> results of the collection and analysis" which were found to be
> an abstract idea by a controlling court in *Electric Power Group*.

(*Id.*). Thus, the Examiner concludes that independent claim 1 is

"unquestionably directed to one or more abstract ideas" (*id.*). And, when

viewed through the lens of the 2019 Revised Guidance, the Examiner's

analysis depicts independent claim 1 as reciting one of the "certain methods

of organizing human activity" that include "fundamental economic

principles or practices (including hedging, insurance, mitigating risk)" and

"commercial or legal interactions (including agreements in the form of

contracts; legal obligations; advertising, marketing or sales activities or

behaviors; business relations)," and thus, an abstract idea. *See* 2019 Revised

Guidance, 84 Fed. Reg. at 52.

In response, Appellant argues that independent claim 1 is not directed

to an abstract idea (Appeal Br. 13). More particularly, Appellant argues that

the Examiner improperly mischaracterizes independent claim 1 as being

directed "to a method of organizing human activity and/or a fundamental

economic practice" (Appeal Br. 13–18).

Under the first prong of step 2A of the 2019 Revised Guidance, we

are not persuaded of error in the Examiner's determination that independent

claim 1 recites abstract ideas comprising steps that represent certain methods

of organizing human activity. Here, the Examiner finds independent claim 1

is directed broadly to a method that

> tracks a current physical location of a mobile device user and
> enables an advertiser who is interested in targeting a particular

> generalized location of a user to bid on the advertising
> opportunity created by (based on) knowing that a user is at
> bidding time located at a particular generalized location.

(Final Act. 5; Ans. 5). However, as Appellant points out, the Examiner

"does not consider the ordered combination of claimed steps, but instead

either ignores or oversimplifies the claim to support the rejection under

35 U.S.C. [§] 101 by characterizing the claim as being merely abstract"

(Appeal Br. 14). The analysis of the full scope of the claims is addressed in

the next prong.

Having concluded that independent claim 1 recites a judicial

exception, i.e., an abstract idea, we turn to the second prong of step 2A of

the 2019 Revised Guidance and determine whether the claim integrates the

recited judicial exception into a practical application of the judicial

exception. Here we look to see if, for example, any additional elements of

the claim (i) reflect an improvement in the functioning of a computer or to

another technological field, (ii) implement the judicial exception with, or by

use of, a particular machine, (iii) effect a transformation or reduction of a

particular article to a different state or thing, or (iv) use the judicial

exception in some other meaningful way beyond generally linking the use of

the judicial exception to a particular technological environment. *See* 2019

Revised Guidance, 84 Fed. Reg. at 55; *see also* MPEP §§ 2106.05(a)–(c),

(e)–(h).

Independent claim 1 recites various computer-related limitations,

including an "ad delivery server," "mobile client executable on a mobile

computing device," and "location broker service executable on a location

broker server." Although these computer-related limitations are not wholly

generic in nature and are specific to "controlling ad delivery," (Spec. ¶ 6),

we agree with the Examiner that they are described at a high level in the Specification without any meaningful detail about their structure or configuration (*see* Ans. 9). As such, we do not find the computer-related limitations are sufficient to integrate the judicial exception into a practical application.

However, claim 1 also recites additional limitations which focus on addressing problems arising in the context of a location-based advertising related to maintaining a user's personal privacy (*see* Spec. ¶ 1). For example, the elements of independent claim 1 require:

> the location broker service (1) receives a location signal from the mobile computing device, (2) determines an actual location of the mobile computing device based on the location signal, and (3) sends a location use token to the mobile computing device that indicates a generalized location, but does not directly indicate the actual location of the mobile computing device.

(Appeal Br. 19). Here, Appellant notes that "the recitation of a single use location use token by claim 1 . . . is in contrast to other approaches that may instead involve long-term storage of a user device location code on a server" (Appeal Br. 19; *cf.* Spec. ¶¶ 46–47). Additional elements of independent claim 1 further require:

> the ad delivery service (4) sends a location request to the mobile computing device, (5) the location use token is received by the ad delivery service from the mobile client, (6) the location use token is sent to the location broker service for verification, (7) the location broker service verifies the location use token, and (8) the generalized location of the mobile computing device is then received by the ad delivery service based on the verification without receiving the actual location from the location broker service.

(*Id*.). Here, Appellant notes that "claim 1 provides that the location request is sent by the ad delivery service to the mobile computing device rather than e.g., by the location broker service that was also in possession of the location use token" (Appeal Br. 20; *cf.* Spec. ¶¶46–47).

We find that independent claim 1 uses 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 Guidance, 84 Fed. Reg. at 55; *see also* MPEP § 2106.05(e). Here, as Appellant points out, "claim 1 addresses the issue of limiting disclosure or dissemination of an actual location of a mobile computing device as determined based on a location signal received from that device, while also enabling an ad delivery service to verify the authenticity of the single use location use token that indicates generalized location information" (Appeal Br. 20–21).

We conclude that these limitations integrate the recited judicial exception of "location-based advertising" into a practical application. In particular, these additional elements limit the conventional practice of "location-based advertising" by reciting "a series of steps by which a single use location use token is transferred between three different machine-based entities through at least three interactions to both limit the dissemination of actual location information and to enable verification of the generalized location information indicated by the token" (Reply Br. 5). As such, claim 1 integrates the abstract idea into a practical application and, therefore, is

directed to patent-eligible subject matter.[4] Similar reasoning applies as to independent claims 13 and 19, as well as to the dependent claims.

Written Description

In rejecting independent claims 1, 13, and 19 under 35 U.S.C. § 112 first paragraph, the Examiner finds that there is no written description support in the Specification for "without receiving the actual location of the mobile computing device from the location broker service by the ad delivery service," as it appears in limitation [i] of independent claim 1, and "but does not directly indicate the actual location of the mobile computing device," as it appears in limitation [c] of independent claim 1 (Final Act. 2). Independent claims 13 and 19 include similar limitations. More particularly, the Examiner finds that the "'without' and 'but does not' limitations represent negative limitations that require a clear distinction between the meaning of the terms 'generalized location' and 'actual location', and said unambiguous meaning of each expression has not been established" (*id.* at 3). The Examiner acknowledges that "[t]he [S]pecification provides some examples," but takes the position that "examples are not definitions, and accordingly this negative limitation is not supported by the [S]pecification" (*id.*).

Appellant maintains that the rejection is improper, and asserts, that "the above features of claim 1 are clearly supported by and consistent with the [S]pecification" (Appeal Br. 35–38 (citing Spec. ¶¶ 7, 20, 22, 27, and 30)).

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[4] Because we have determined the claim is not directed to the recited judicial exception, we need not reach the question of whether the claim provides an inventive concept under the second step of the *Alice* inquiry.

Whether a Specification complies with the written description requirement of 35 U.S.C. § 112, first paragraph, is a question of fact and is assessed on a case-by-case basis. *See, e.g.*, *Purdue Pharma L.P. v. Faulding, Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000) (citing *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1561 (Fed. Cir. 1991)). The disclosure, as originally filed, need not literally describe the claimed subject matter (i.e., using the same terms or *in haec verba*) in order to satisfy the written description requirement. But the Specification must convey with reasonable clarity to those skilled in the art that, as of the filing date, the inventor was in possession of the claimed invention. *See id.*

Here, Appellant points out that "the [S]pecification clearly provides that the location use token is not data directly indicating the mobile client location 138," and thus, "[w]ithin the context of claim 1, a precise location is an example of an actual location of the mobile computing device" (Appeal Br. 35 (citing Spec. ¶¶ 20, 22)). Appellant further points out that the "[u]se of the generalized location without the actual location in claim 1 is distinguishable from examples in the [S]pecification in which the actual location is sent or received" (Appeal Br. 36 (citing Spec. ¶¶ 7, 30)). Appellant also directs attention to a portion of the Specification that provides a clear distinction between "the terms 'actual location' and 'generalized location' in relation to each other" (Appeal Br. 36 (citing Spec. ¶¶ 20, 27)). Thus, we agree with Appellant that a person of ordinary skill in the art would reasonably understand from the Specification, as originally filed, that the Specification provides support for the argued limitations at the time the application was filed.

Therefore, we do not sustain the Examiner's rejection of independent claims 1, 13, and 19 under 35 U.S.C. § 112 first paragraph.

Indefiniteness

We are persuaded that the Examiner erred in rejecting independent claims 1, 13, and 19 under 35 U.S.C. § 112, second paragraph. The Examiner determined that "without receiving the actual location of the mobile computing device from the location broker service by the ad delivery service," as it appears in limitation [i] of independent claim 1, and "but does not directly indicate the actual location of the mobile computing device," as it appears in limitation [c] of independent claim 1, render the claim indefinite because the Specification does not make a clear distinction "between the meaning of the terms 'generalized location' and 'actual location'" (Final Act. 3). The Examiner takes the position that because "the metes and bounds of the expression 'generalized location' are not clearly defined[,] . . . a person of ordinary in the art would have no way of understanding what is and what is not included by this expression" (Ans. 15). We disagree.

In our view, a person of ordinary skill in the art would understand from the Specification (including the claim language) what is being claimed, namely that the term "generalized location" "informs those skilled in the art about the scope of the invention with reasonable certainty" (Appeal Br. 41). Here, as Appellant points out,

> a person having ordinary skill in the art would recognize that a "generalized location" of a mobile computing device is a regionalized form of the "actual location" of the mobile computing device. For example, the specification at

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Par. [0020] and again at Par. [0027] provides: "a generalized location, i.e., a region."

(Appeal Br. 41; *see also* Appeal Br. 43 (stating "since a 'generalized location' is a regionalized form of an actual location, the generalized location is not merely 'anything under the sun' as broadly characterized by the Examiner."). Therefore, we do not sustain the Examiner's rejection of independent claims 1, 13, and 19 under 35 U.S.C. § 112, second paragraph. *See Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986) (The test for definiteness under 35 U.S.C. § 112, second paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the [S]pecification.").

Obviousness

We are persuaded by Appellant's argument that the Examiner erred in rejecting independent claims 1, 13, and 19 under 35 U.S.C. § 103(a) because Cone, upon which the Examiner relies, fails to disclose or suggest "verifying the location use token, by the location broker service, by determining whether or not the location use token sent from the ad delivery service is a location use token generated from the location broker server," as recited by limitation [h] of independent claim 1, and similarly recited by independent claims 13 and 19 (Appeal Br. 59–60).

The Examiner maintains that the rejection is proper, and cites Cone, as disclosing "a verification step" (Ans. 22 (citing Cone ¶¶ 18–41; Figs. 3–6); Final Act. 11). However, we agree with Appellant that there is nothing in the cited portions that discloses or suggests the argued limitation.

In making this determination, we note that Cone is directed to a personal location code broker (Cone ¶ 6). Cone describes that a personal

location code (PLC) is "a network-independent code for locating a user" which "allows a user to make available a PLC which can be used by others to obtain the current location of the user based on the location of one or more devices associated with the user" (*id.* ¶ 18). Cone's "PLC serves as a key to location privacy management" because it allows a user to "control who is allowed to locate them" (*id.*). Cone further describes that "[u]sers can provide their PLCs to others verbally or by electronic means such as e-mail, instant messaging, application-to-application" (*id.* ¶ 19).

In one embodiment, Cone discloses "a device sends a location request message containing a PLC associated with a target user to the application server 202 (e.g., as part of a utilizing a service) or to the location service 212" (*id.* ¶ 21). Cone discloses "[i]f the location request was provided to the application server 202, the application server provides a location request along with the PLC to the location service 212" (*id.* ¶ 22). Cone then discloses "[t]he location service 212 verifies whether the PLC can be used to locate the target user and determines which network (e.g., network 1, 2 or 3) a device associated with the target user (e.g., the user's cell phone) is registered with" (*id.* ¶ 23).

We have reviewed the cited portions of Cone, and agree with Appellant that none of the cited portions of Cone discloses or suggests the argued limitation. Instead, we agree with Appellant that there is "no disclosure in Cone of a verification step for the PLC that is the equivalent of the verification step for the single use location use token," as required by limitation [h] of independent claim 1, and similarly required by independent claims 13 and 19 (*see* Appeal Br. 59–60). Although we agree with the Examiner that Cone discloses "a verification step" (Ans. 22), we cannot

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agree with the Examiner that Cone discloses or suggests the "verification" required by independent claims 1, 13, and 19. That is, we do not see, and the Examiner does not explain adequately, how or why Cone discloses or suggests that the location broker service "verif[ies] the location use token . . . by determining whether or not the location use token sent from the ad delivery service is a location use token generated from the location broker server" (*cf.* Ans. 22). The Examiner does not rely on Grannan or Marcuvitz to address this deficiency.

In view of the foregoing, we do not sustain the Examiner's rejection of independent claims 1, 13, and 19 under 35 U.S.C. § 103(a). For the same reasons, we also do not sustain the Examiner's rejection of claims 3, 4, 8, 9, 12, 15, and, 20, which depend therefrom. On the same basis, we do not sustain the obviousness rejection of dependent claims 5–7, 10, and 16–18, as the additional reference, Bajpai, is not cited to remedy the aforementioned deficiency.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3–10, 12, 13, 15–20	101	Eligibility		1, 3–10, 12, 13, 15–20
1, 13, 19	112, first paragraph	Written Description		1, 13, 19
1, 13, 19	112, second paragraph	Indefiniteness		1, 13, 19
1, 3, 4, 8, 9, 12, 13, 15, 19, 20	103(a)	Cone, Grannan, Marcuvitz		1, 3, 4, 8, 9, 12, 13, 15, 19, 20

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
5–7, 10, 16–18	103(a)	Cone, Grannan, Marcuvitz, Bajpai		5–7, 10, 16–18
Overall Outcome				1, 3–10, 12, 13, 15–20

REVERSED