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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RAUL I. ALDREY, ANTHONY M. LEMUS,
DONALD H. RELYEA, and BRIAN F. ROBERTS

Appeal 2016-005790
Application 13/359,992¹
Technology Center 3600

Before ALLEN. R. MacDONALD, CHARLES J. BOUDREAU, and
JON M. JURGOVAN, *Administrative Patent Judges*.

JURGOVAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants seek review under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–3, 5–17, and 23–27. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.²

¹ Appellants identify Verizon Communications Inc. as the real party in interest. (Appeal Brief 4.)

² Our Decision refers to the Specification (“Spec.”) filed Jan. 27, 2012, the Final Office Action (“Final Act.”) mailed Apr. 2, 2015, the Appeal Brief (“App. Br.”) filed Sept. 18, 2015, the Examiner’s Answer (“Ans.”) mailed Mar. 22, 2016, and the Reply Brief (“Reply Br.”) filed May 11, 2016.

CLAIMED INVENTION

The claims are directed to maintaining a customer premises profile specifying customer premises equipment (“CPE”) devices for which to track near field communication (“NFC”) transactions, and providing a service based on the tracked NFC transactions. Spec. ¶ 8. The service may comprise a feature (such as media content) provided by a first CPE device that is enabled when tracked NFC transactions indicate that a second CPE device is located at the customer premises (i.e., a home or work place), and that is disabled when tracked NFC transactions indicate the second device is not at the customer premises. Spec. ¶¶ 34–38. For example, this provides a parent the capability to restrict access to certain media content when NFC transactions of the recited second device appear to indicate that the parent (assumed to be in possession of the second device) is not present at the premises. Claims 1, 23, and 25 are independent. Claims 1 and 12 are reproduced below:

1. A method comprising:

maintaining, by a computing system, a customer premises profile that is defined by a user of customer premises equipment (“CPE”) devices and that specifies the CPE devices for which to track near field communication (“NFC”) transactions;

tracking, by the computing system, the NFC transactions between the CPE devices that are specified by the customer premises profile and that are located at a customer premises; and

providing, by the computing system, a service based on the tracked NFC transactions between the CPE devices specified by the customer premises profile and located at the customer premises, wherein the providing of the service comprises:

enabling access to a feature provided by a first CPE device included in the CPE devices specified by the customer premises profile and located at the customer premises when the tracked NFC transactions indicate that

a second CPE device included in the CPE devices specified by the customer premises profile is physically located at the customer premises; and

disabling access to the feature provided by the first CPE device included in the CPE devices specified by the customer premises profile and located at the customer premises such that an additional user of the first CPE device is unable to access the feature when the tracked NFC transactions indicate that the second CPE device included in the CPE devices specified by the customer premises profile is not physically located at the customer premises.

12. The method of claim 1, wherein the service further comprises providing a user *credit rating* based on the tracked NFC transactions.

App. Br. 35, 38 (“Claims App”) (emphasis added).

REJECTION

Claims 1–3, 5–17, and 23–27 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Final Act. 6–8.³

ANALYSIS

§ 101 Rejection

Patent eligibility is a question of law. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012).

Patentable subject matter is defined by 35 U.S.C. § 101, as follows:

³ The Examiner withdrew the claim objections and rejections based on 35 U.S.C. § 112, first and second paragraphs. *See* Advisory Action dated Jul. 7, 2015.

[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

In interpreting this statute, the Supreme Court emphasizes that patent protection should not preempt “the basic tools of scientific and technological work.” *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012); *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014). The rationale is that patents directed to basic building blocks of technology would not “promote the progress of science” under the U.S. Constitution, Article I, Section 8, Clause 8, but instead would impede it. Accordingly, laws of nature, natural phenomena, and abstract ideas are not patent-eligible subject matter. *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1346 (Fed. Cir. 2017) (citing *Alice*, 134 S. Ct. at 2354).

The Supreme Court set forth a two-part test for subject matter eligibility in *Alice*. 134 S. Ct. at 2355. The first step is to determine whether the claim is directed to a patent-ineligible concept. *Id.* (citing *Mayo*, 566 U.S. at 76–77). If so, then the eligibility analysis proceeds to the second step of the *Alice/Mayo* test in which we “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*, 134 S. Ct. at 2357 (quoting *Mayo*, 566 U.S. at 72, 79). The “inventive concept” may be embodied in one or more of the individual claim limitations or in the ordered combination of the limitations. *Alice*, 134 S. Ct. at 2355. The “inventive concept” must be significantly more than the abstract idea itself, and cannot be simply an instruction to implement or

apply the abstract idea on a computer. *Alice*, 134 S. Ct. at 2358. “[W]ell-understood, routine, [and] conventional activit[ies]’ previously known to the industry” are insufficient to transform an abstract idea into patent-eligible subject matter. *Alice*, 134 S. Ct. at 2359 (citing *Mayo*, 566 U.S. at 73).

Independent Claims 1, 23, and 25

Method claim 1 and system claim 25 recite similar limitations. Claim 23 differs from these claims in specifying enabling or disabling access to “media content” rather than the broader “feature” of claims 1 and 25. The independent claims are argued together as a group. App. Br. 10–33. We likewise address the independent claims as a group in our decision. *See* 47 C.F.R. § 41.37(c)(1)(iv).

Appellants argue the Patent Office has not set forth a *prima facie* case of unpatentability under § 101. App. Br. 10–14. Appellants argue the Examiner must

[i]n the rejection, [1] identify the exception **by referring to where it is recited (i.e., set forth or described) in the claim** and [2] **explain why it is considered an exception**. Then, if the claim includes additional elements, [3] **identify the [additional] elements** in the rejection and [4] **explain why they do not add significantly more to the exception**.

App. Br. 10–11 (*citing* 2014 Interim Guidance on Patent Subject Matter Eligibility, 79 Fed. Reg. 74,618, 74,624 (Dec. 16, 2014)); Reply Br. 6–8.

Specifically, Appellants contend the Examiner failed to establish a *prima facie* case of unpatentability under § 101 because the Examiner does not identify where the claims recite the abstract idea identified by the Examiner. App. Br. 10–14, Reply Br. 6–9. In addition, Appellants contend the Examiner’s identification of the abstract idea is conclusory and does not explain why the identified idea is abstract or amounts to “an idea of

organizing human activities,” nor does the Examiner cite to any relevant cases or provide factual evidence for the assertion. *Id.*

Regarding step two of the *Alice/Mayo* test, Appellants also contend the Examiner failed to identify the “additional elements” in each of the claims, and argues the references cited by the Examiner, Baek and Arling, fail to suggest the “disabling” operation recited in claim 1. App. Br. 12, 19–24; Reply Br. 7–16. Appellants also argue “the claims are not currently rejected under § 103, and the Patent Office’s use of prior art in attempting to set forth the § 101 rejection is flawed.” *Id.* Appellants further contend “the Patent Office has not performed any § 101 analysis with respect to any of the additional elements recited in the dependent claims.” App. Br. 12–13.

Finally, regarding preemption, Appellants argue

claim 1 would not pre-empt the field of providing a service and enabling a feature based on tracked NFC transactions between CPE devices specified by a profile and at a location in circumstances that do not include disabling access to a feature in the manner recited in claim 1, and the Patent Office has not shown, nor can it show, that claim 1 would pre-empt all forms of providing a service and enabling a feature based on tracked NFC transactions between CPE devices specified by a profile and at a location.

App. Br. 30–31; Reply Br. 24–31. Thus, Appellants emphasize the claimed “disabling” in their pre-emption argument.

We do not agree with Appellants’ arguments. Applying the test set out by the Supreme Court, we first note the claimed methods (claims 1–3 and 5–17, 23, and 24) and systems (claims 25–27) fall within the respective categories of “process” and “apparatus” in the statute, and thus ostensibly

fall within the ambit of § 101. However, this is not the end of the inquiry as we must proceed to apply the *Alice/Mayo* test.

Under step one of *Alice/Mayo*, we agree with the Examiner the claims are directed to the abstract idea of “providing a service and enabling⁴ a feature based on tracked NFC⁵ transactions between CPE devices⁶ specified by a profile and at a location.” Final Act. 7. The claims do indeed recite this abstract idea in the “maintaining,” “tracking,” and “providing” steps or functions. The Examiner finds *inter alia* the abstract idea is either a fundamental economic practice or a method of organizing human activities, which are examples of judicially recognized abstract ideas set forth in *Alice*. Final Act. 7; Ans. 2.

We agree with the Examiner that the identified idea recited in the claims amounts to “a fundamental economic practice long prevalent in our

⁴ We note that “enabling” implies the capability of “disabling” so the Examiner’s identification of the abstract idea agrees with what is recited in the claims.

⁵ Near field communication (NFC) is a technology that allows two devices in close proximity (in contact or within a few inches of each other) to establish a wireless connection and exchange communications. Spec. ¶ 1.

⁶ A customer premises equipment (CPE) device “may include any device that is physically located at a customer premises or that may be physically located at a customer premises such as a home or workplace.” Spec. ¶ 22. Examples include appliances (e.g., a refrigerator, freezer, oven, stove, microwave, furnace, air conditioning unit, water softener, water filter, etc.), a utilities monitoring device (a gas or power consumption monitoring device), personal computer, consumer electronics devices (e.g., a set-top box device, digital video recorder device, gaming console, media server, router, modem, etc.). *Id.* The CPE device may include an active or passive NFC-enabled device. *Id.*

system of commerce.” Ans. 2; *see Alice*, 134 S. Ct. at 2356. For example, credit card transactions had been performed using NFC-enabled mobile phones for years prior to the claimed invention, as evidenced, for example, by King, which was cited in the Final Office Action. Final Act. 7. *See King Abstract*, ¶ 375. In the typical NFC credit card transaction, a user places an NFC-enabled mobile phone in close proximity to a point-of-sale (POS) terminal to purchase an item. As described in the Specification, because the NFC-enabled mobile phone and POS terminal may be located in a user’s home or work place, they are considered CPE devices. *See Spec.* ¶ 22, and footnote 6 above. Such NFC-enabled phones can be enabled or disabled to perform NFC credit card transactions, and only communicate when the mobile phone and POS terminal detect they are in close proximity to one another. The mobile phone provides credit card information to the POS terminal which communicates with the card issuer/bank using well-known credit infrastructure to complete a purchase. The credit card is associated with an account specifying the card holder’s name, address, and phone number, etc. (i.e., “profile”) and the credit card transactions under the account (including NFC transactions and the locations of the POS terminals where the transactions occurred). The “user” and “additional user” can be construed in various ways. For example, a parent (user) owning the mobile phone may buy an item or service for a child (additional user). As another example, a store clerk (user) assists a customer (additional user) in operating the POS terminal. Credit card transactions, including NFC-enabled ones, are certainly a “fundamental economic practice.” In these scenarios, the “service” may be regarded as provision of credit services using a credit card,

and the “feature” may be regarded as the use of the NFC-enabled POS terminal.

Moving on to step two of *Alice/Mayo*, we agree with the Examiner the claims do not recite any “inventive concept” or “meaningful limitation” that could transform the abstract idea into patent-eligible subject matter. *See Alice*, 134 S. Ct. at 2360 (quotation omitted) and *Mayo* at 73. Specifically, the Examiner states

[T]he claims as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea. The claim merely amounts to applying the abstract idea (i.e. providing a service and enabling a feature based on tracked NFC transactions between CPE devices specified by a profile and at a location) on a computer, and is considered to amount to nothing more than requiring a generically described computer system merely to carry out the abstract idea itself. This is because the claims do not effect an improvement to another technology or technical field, the claims do not amount to an improvement to the functioning of a computer itself, and the claims do not move beyond a general link of the use of an abstract idea to a particular technological environment. Accordingly, the Examiner concludes that there are no meaningful limitations in the claim that transform the judicial exception into a patent eligible application such that the claim amounts to significantly more than the judicial exception itself. Therefore, the claims are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

Final Act. 7–8. We agree with the Examiner’s determinations.

In particular, the Examiner relied on the combination of Thompson and King to teach tracking when a CPE device is in a profile and on the premises. Final Act. 7. Thompson mentions collecting and maintaining status of communication devices in a profile. Thompson Abstract. King mentions receiving on a mobile client information relating to a transaction

between the mobile client and a transaction host, using near-field communication (NFC) link, and updating a user profile on the mobile client based on the received transaction information, and receiving, selecting, and displaying one or more targeted content messages on the mobile client based on the updated user profile. King Abstract. The Examiner further states that Baek teaches enabling access by automatically logging a user in or out of a service and/or service feature, and that Arling teaches enabling home control features such as location-based control setup and operation. Final Act. 7; *see, e.g.*, Baek ¶ 63; Arling Abstract.

Thus, the Examiner demonstrates that the claimed invention is an assemblage of things well-known in the art that does not add an “inventive concept” to transform the recited abstract idea into a patent-eligible one. In other words, maintaining a profile and tracking NFC transactions of specified CPE devices (as taught by King and Thompson), and providing a service based on tracked NFC transactions that involves enabling and disabling a feature based on presence or absence of a device from customer premises (as taught by Baek and Arling) were well-known in the art. Accordingly, Appellants have not shown the claimed invention is more than the combination of well-known things from the prior art that are combined and used according to their established purposes yielding predictable results, or that there is any meaningful limitation resulting from the combination that amounts to “significantly more” than the abstract idea itself.

In this regard, we note that the claims do not recite that any element determines the location of a CPE device based on tracked NFC transactions. As such, the claims can be broadly but reasonably construed as meaning the tracked NFC transactions merely reflect an enabled NFC transaction

capability (the claimed “feature”) associated with a credit card service (“service”) when an NFC-enabled mobile phone (“second CPE device”) is near a POS terminal (“first CPE device”) on customer premises (home or workplace of the claimed “user”) and a disabled NFC transaction capability when the NFC-enabled mobile phone is not near a POS terminal on customer premises. In other words, the claims do not recite determining when the first CPE device is on customer premises using tracked NFC transactions that result from the second CPE device interacting with CPE devices other than the first CPE device. The inquiry is “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, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016); *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1048 (Fed. Cir. 2016)). In the absence of any claim element to determine where the second CPE device is located relative to the customer premises based on tracked NFC transactions with devices other than the first CPE device, the claims recite no element that constitutes a technical improvement but instead recite a mere result or effect invoking generic machinery such as used in NFC-enabled credit card transactions.

That the claimed methods or systems involve a “computing system” does not transform the claimed invention into a patent-eligible application of the abstract idea. “For the role of a computer in a computer-implemented invention to be deemed meaningful in the context of this analysis, it must involve more than performance of ‘well-understood, routine, [and]

conventional activities previously known to the industry.” *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1347–48 (citing *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 566 U.S. at 73)). “The mere recitation of a generic computer cannot transform a patent-ineligible idea into a patent-eligible invention.” *Alice*, 134 S. Ct. at 2358. Maintaining a profile, tracking NFC transactions between CPE devices, and providing a service involving enabling and disabling a feature, are well-understood, routine, and conventional activities computers were well-known to perform, as indicated by the cited references.

The meaning ascribed to the term “CPE device” in the Specification is broad and depends on whether a device is something that is or may be located at a customer’s premises. *See* footnote 6. Where a device is located, however, does not generally change its structure or functionality. Thus, the term “CPE device” is not a meaningful limitation in these claims, particularly considering the vast breadth of what is encompassed by “CPE device.” The term as claimed is the sort of “vague” description determined insufficient to confer eligibility. *See In re TLI Commc’ns. LLC Patent Litig.*, 823 F.3d 607, 615 (Fed. Cir. 2016) (“Such vague, functional descriptions of server components are insufficient to transform the abstract idea into a patent-eligible invention.”).

Moreover, “service” and “feature” are virtually unrestricted in what they may be in the claimed invention. According to the Specification, “[t]he services and/or service features may make the performance of one or more user activities more efficient, convenient and/or reliable than before.” Spec. ¶ 10. Almost any service or feature falls within this description. As a result, the claims cover an enormous range of possibilities, and fail to recite a

patent-eligible application of the abstract idea embodied therein. *See, e.g., TLI*, 823 F.3d at 613 (holding that claims failed to recite any elements that individually or as an ordered combination transformed the abstract idea of classifying and storing digital images in an organized manner into a patent-eligible application of that abstract idea); *see also Alice*, 134 S. Ct. at 2355 (*quoting Mayo*, 566 U.S. at 79). Accordingly, we agree with the Examiner that the claims do not recite an “inventive concept” sufficient to transform the claimed invention into a patent-eligible one.

We also note that significant preemption would result from a patent on maintaining a customer premises profile specifying CPE devices, tracking NFC transactions between CPE devices specified by the profile and located at customer premises, and providing a service based on the tracked NFC transactions in which the service comprises enabling a feature of one CPE device when the NFC transactions indicate presence of another CPE device at the customer premises, and disabling the feature when the NFC transactions indicate the other CPE device is not at the customer premises. Well-known technologies would be foreclosed by a patent on the claimed invention, such as NFC credit card transactions using a mobile phone and POS terminal. As mentioned, the terms “computer system,” “CPE devices,” “service,” and “feature” are broadly defined in the claimed invention and would significantly foreclose use of the abstract idea embodied in the claims. Even if the claims do not entirely preempt use of the abstract idea, “the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

Considering all of the foregoing, we determine that the claims as presented are directed to non-statutory subject matter under 35 U.S.C. § 101.

Dependent Claim 11

Claim 11 recites “[t]he method of claim 1, wherein the service further comprises providing a maintenance notification based on the tracked NFC transactions, the maintenance notification configured to notify a user of a recommended maintenance activity for a CPE device included in the CPE devices specified by the customer premises profile and located at the customer premises.” App. Br. 38 (Claims App’x). Appellants argue that these “additional features” of claim 11 “improve the functioning of the CPE devices located at the customer premises by increasing efficiency of the CPE devices” and “ensure that claim 11 does not pre-empt all practical applications of the asserted abstract idea of providing a service and enabling a feature based on tracked NFC transactions between CPE devices specified by a profile and at a location.” *Id.* at 33–34 (citing Spec. ¶ 57). We are not persuaded by Appellants’ arguments.

Claim 11 incorporates the defects of claim 1 by dependency and does not recite a patent-eligible invention. Claim 11 is directed to the abstract idea of providing a maintenance notification, and the claim does not recite an inventive concept sufficient to transform the claim into a patent-eligible one.

For example, Baek teaches

The home network system includes a master device which is a home appliance for controlling an operation of the other home appliances or monitoring a status thereof, and a slave device which is a home appliance having a function of responding to the request of the master device and a function of notifying a status change according to properties of the home

appliances or other factors. Here, the home appliances include home appliances for the living network service such as a washing machine and a refrigerator as well as home appliances for the IT network service and the AV network service.

Baek ¶ 6. A person of ordinary skill would have appreciated that notifying a user of a status change according to properties of the home appliances at least suggests the possibility that the home appliance is not working properly and constitutes a recommendation of performance of a maintenance activity.⁷ Accordingly, the claim recites a limitation known in the art and does not provide an “inventive concept” to transform the claim into patent-eligible subject matter. Moreover, preemption posed by the claim is significant and virtually unrestricted in terms of what the CPE device or recommended maintenance activity might be.

For these reasons as well as those stated above with respect to claim 1, we determine dependent claim 11 is not patent-eligible.

Dependent Claim 12

Claim 12 depends from claim 1 and thus incorporates the mentioned deficiencies. Although claim 12 was not separately argued on appeal, we draw attention to this claim because it recites that “the service further comprises providing a user *credit rating* based on the tracked NFC transactions.” Providing a user credit rating is a “fundamental economic practice.” Basing it on tracked NFC transactions, which were well-known and do not amount to an “inventive step,” does not provide “significantly more” than the abstract idea embodied in the claim.

⁷ We note that appliances such as washing machines and dryers have been manufactured for years before the claimed invention to display error codes that notify users of malfunctions and needed repairs.

Our reviewing court has found claims in similar cases to be ineligible. For example, in *Dealertrack, supra*, the court found claims directed to computer-aided processing of credit applications over electronic networks statutorily ineligible. In *Smart Systems Innovations, LLC v. Chicago Transit Authority*, 873 F.3d 1364 (Fed. Cir. 2017), our reviewing court found ineligible for patent protection claims that were directed to validating entry into a transit system using a bank card terminal and credit or debit cards. Similarly, *Mortgage Grader, Inc. v. First Choice Loan Services Inc.*, 811 F.3d 1314 (Fed. Cir. 2016) held claims directed to assisting borrowers to obtain loans patent-ineligible.

Because credit rating is a common practice in the credit industry, and because our reviewing court has found similar cases involving credit to be ineligible, we likewise find claim 12 directed to ineligible subject matter.

We further note that claim 12 is necessarily narrower in scope than claim 1 due to its dependency. 35 U.S.C. § 112, 4th paragraph. Thus, claim 12 also establishes that claim 1 encompasses ineligible subject matter. For this additional reason, we determine that claim 1 is directed to ineligible subject matter.

Remaining Claims

No further arguments are submitted for the remaining dependent claims, which fall for the reasons stated for their respective independent claims. *See* 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

We affirm the rejection of claims 1–3, 5–17, and 23–27 under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Appeal 2016-005790
Application 13/359,992

AFFIRMED