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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KAREN L. CERVENKA, STACY POURFALLAH,
MARY THERESA TAYLOR, and ANDREW RADLOW

Appeal 2017-009840
Application 12/855,584¹
Technology Center 3600

Before HUBERT C. LORIN, TARA L. HUTCHINGS, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Karen L. Cervenka et al. (Appellants) seek our review under 35 U.S.C. § 134(a) of the Final Rejection of claims 2, 5–7, 14, 17, 18, 20, 21, 23, and 28–33. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We REVERSE.

¹ The Appellants identify Visa International Service Association and Citicorp Credit Services, Inc. as the real party in interest. App. Br. 3.

THE INVENTION

Claim 2, reproduced below, is illustrative of the subject matter on appeal.

2. A method comprising:

receiving, at a server computer, through an acquirer and from a Point-of-Sale (POS) terminal associated with a healthcare provider, an authorization request message which requests authorization to conduct a transaction on an account for the sale of a service of an administering of an influenza vaccine after a bearer of a prepaid card associated with the account and comprising a computer readable memory storing data including an identifier for an influenza vaccine and an identifier associated with the account causes the Point-of-Sale terminal to read the data from the prepaid card,

wherein the authorization request message includes the identifier for the influenza vaccine and the identifier for the account, and wherein the identity of the bearer of the prepaid card is anonymous by not encoding data sufficient to identify the bearer of the prepaid card on the prepaid card;

determining, by the server computer, an issuer of the account based on the identifier for the account;

routing, by the server computer, the authorization request message to the issuer of the account, wherein the issuer operates an issuer computer that is configured to:

determine, using the identifier for the account and the identifier for the influenza vaccine that the transaction is authorized,

deactivate the identifier associated with the account after the transaction is authorized such that further authorization request messages that include the identifier associated with the account will be declined,

deactivate the prepaid card upon determining that there are no active identifiers associated with the account included in the prepaid card,

generate an authorization response message indicating approval of the transaction, and

transmit the authorization request message to the server computer;

receiving, at the server computer the authorization response message indicating approval of the transaction from the issuer;

sending, by the server computer, the authorization response message to the POS terminal, wherein after the receiving of the authorization response message, the healthcare provider thereafter administers the influenza vaccine; and

clearing and settling, by the server computer, the transaction between the account associated with the prepaid card and an account associated with the healthcare provider.

THE REJECTION

The following rejection is before us for review:

Claims 2, 5–7, 14, 17, 18, 20, 21, 23, and 28–33 are rejected under 35 U.S.C. § 101 for claiming patent-ineligible subject matter.

ISSUE

Did the Examiner err in rejecting claims 2, 5–7, 14, 17, 18, 20, 21, 23, and 28–33 under 35 U.S.C. § 101 for claiming patent-ineligible subject matter?

ANALYSIS

The rejection of claims 2, 5–7, 14, 17, 18, 20, 21, 23, and 28–33 under 35 U.S.C. § 101 for claiming patent-ineligible subject matter.

Preliminary comment

In their briefs, the Appellants refer to prior USPTO guidance. *See e.g.*, App. Br. 7 (“*July 2015 Update*”). Said guidance have been superseded by the 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019), hereinafter “2019 Revised 101 Guidance.” *Id.* at 51 (“Eligibility-related guidance issued prior to the Ninth Edition, R-08.2017, of the MPEP (published Jan. 2018) should not be relied upon.”).

Accordingly, our analysis will not address the sufficiency of the Examiner’s rejection against the earlier guidance.

Rather, our analysis will comport with the 2019 Revised 101 Guidance.

Introduction

35 U.S.C. § 101 provides that “[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.”

We will focus on claim 2. In that regard, claim 2 covers a “process” and is thus statutory subject matter for which a patent may be obtained.² This is not in dispute.

However, the § 101 provision “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216

² This corresponds to Step 1 of the 2019 Revised 101 Guidance which requires determining whether “the claim is to a statutory category.” *Id.* at 53. *See also* sentence bridging pages 53 and 54 (“consider[] whether the claimed subject matter falls within the four statutory categories of patentable subject matter identified by 35 U.S.C. [§] 101”).

(2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

In that regard, notwithstanding claim 2 covers statutory subject matter, the Examiner has raised a question of patent-eligibility on the ground that claim 2 is directed to an abstract idea.

Alice identifies a two-step framework for determining whether claimed subject matter is directed to an abstract idea. *Alice*, 573 U.S. at 217.

Alice step one – the “directed to” inquiry

According to *Alice* step one, “[w]e must first determine whether the claims at issue are *directed to* a patent-ineligible concept.” *Id.* at 218 (emphasis added).

The Examiner determined that claim 2 is “directed to the abstract idea of comparing new and stored information an[d] using rules to identify options.” Final Act. 3.

The “Appellants submit that the claims are directed to patent eligible subject matter for reasons similar to those recited with respect to the claims in *DDR Holdings* [*DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)].” App. Br. 11.

The Appellants argue:

Like the claims at issue in [] *DDR Holdings* . . . embodiments of the invention utilize a distributed computer system involving a POS terminal, a server computer, an issuer computer to provide for a means to provide an influenza vaccine to a bearer of a prepaid device. One problem that existed in prior art systems that is addressed by embodiments of the invention is the ability to improve access to influenza vaccines for people while maintaining confidentiality as well as to reduce the paperwork necessary for reimbursing healthcare providers that might be administering the vaccines. Embodiments of

the invention solve this problem by providing a number of influenza vaccine identifiers to a user via a prepaid card, and then automatically deactivating the prepaid card upon detecting that each of the identifiers has been redeemed. Embodiments of the disclosure reduce or eliminate the need for healthcare providers to submit reimbursement paperwork, allow healthcare providers to get paid faster, improve the access to influenza vaccines, and maintain confidentiality. Similar to the claims in *DDR Holdings*, embodiments of the invention utilize multiple devices including a POS terminal, a prepaid card, a server computer, and an issuer computer in a distributed system to address a business challenge in an electronic payments environment.

Appellants submit that . . . embodiments of the invention address a number of technical challenges that are particular to computer technology and that the solutions provided by embodiments of the invention are necessarily “rooted in computer technology in order to overcome a problem specifically arising” in the realm of transactions performed using electronic devices.

Id. at 10.

Accordingly, there is a dispute over what concept claim 2 is directed to. Is claim 2 directed to “comparing new and stored information [and] using rules to identify options” (Final Act. 3) or “a technical solution to a technical problem” (App. Br. 11)?

*Claim Construction*³

We consider the claim as a whole⁴ giving it the broadest reasonable construction⁵ as one of ordinary skill in the art would have interpreted it in light of the specification⁶ at the time of filing.

Claim 2 recites a “method” involving four things: (1) a “server computer”; (2) “a Point-of-Sale (POS) terminal associated with a healthcare provider”; (3) a bearer’s “prepaid card” “associated” with “an account for the sale of a service of an administering of an influenza vaccine”; and (4) a

³ “[T]he important inquiry for a § 101 analysis is to look to the claim.” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013). “In *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1273 (Fed. Cir. 2012), the court observed that ‘claim construction is not an inviolable prerequisite to a validity determination under § 101.’ However, the threshold of § 101 must be crossed; an event often dependent on the scope and meaning of the claims.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347–48 (Fed. Cir. 2015).

⁴ “In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.” *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

⁵ 2019 Revised 101 Guidance, page 53, footnote 14 (“If a claim, under its *broadest reasonable interpretation*”) (emphasis added.)

⁶ “First, it is always important to look at the actual language of the claims. . . . Second, in considering the roles played by individual limitations, it is important to read the claims ‘in light of the specification.’” *Smart Systems Innovations, LLC v. Chicago Transit Authority*, 873 F.3d 1364, 1387 (Fed. Cir. 2017) (J. Linn, dissenting in part and concurring in part) (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016), among other cases).

“computer” of an “issuer of the account” (i.e., an “issuer computer”). The prepaid card (3) has two identifiers: (a) “an identifier for an influenza vaccine” and (b) “an identifier associated with the account.” The two identifiers are included in the data stored in the prepaid card’s “computer readable memory.” In order that “the identity of the bearer of the prepaid card is anonymous,” “data sufficient to identify the bearer of the prepaid card [is not encoded] on the prepaid card.”

In a nutshell, claim 2 is reasonably broadly directed to processing a prepaid card (3) having certain particular identifiers — (3)(a) and (3)(b) — to authorize a healthcare provider to administer an influenza vaccine to the bearer of the card while keeping the identity of the bearer of the card anonymous.

Specifically, according to claim 2, data from the prepaid card (3) is read by the POS terminal (2), whereby the server computer (1) receives “an authorization request message which requests authorization to conduct a transaction on [the] account for the sale of a service of an administering of an influenza vaccine.” The server computer (1) then “determin[es] . . . [the] issuer of the account based on the identifier for the account [(3)(b)]” and “rout[es] . . . the authorization request message to the issuer of the account” via the issuer computer (4). The issuer computer (4) is configured to determine whether the transaction is authorized based on the two identifiers — (3)(a) and (3)(b). If the transaction is authorized, the issuer computer (4) “deactivate[s] the identifier associated with the account [(3)(b)]” and if “there are no active identifiers associated with the account included in the prepaid card [(3)],” the prepaid card (3) is also deactivated. The issuer computer then “generate[s] an authorization response message indicating

approval of the transaction” and said authorization message is transmitted to the server computer (1). The server computer (1) receives the authorization message and sends it to the POS terminal (2), whereupon “the healthcare provider thereafter administers the influenza vaccine.” Finally, the server computer (1) “clear[s] and settl[es] . . . the transaction between the account associated with the prepaid card and an account associated with the healthcare provider.” The identity of the bearer of the prepaid card remains anonymous by not encoding “data sufficient to identify the bearer of the prepaid card on the prepaid card.”

According to the Specification,

The present invention relates generally to a prepaid card for a payment processing system, and more particularly to a prepaid or a healthcare service, and most particularly to a prepaid card that identifies an influenza vaccine, where the prepaid card can be used by a patient at a healthcare service provider to obtain an administration of the influenza vaccine, and where the prepaid card is associated with one or more accounts of third parties who are financially responsible for reimbursing the healthcare service provider for the cost of administering the influenza vaccine to the patient.

Spec., para. 2. “The present discussion considers a prepaid card that can be used by a patient for an influenza (i.e.; ‘Flu’) vaccine.” *Id.*, para. 16.

The influenza vaccine prepaid card [] can have a magnetic strip from which the identifiers can be read. The identifiers include an identifier for the influenza vaccine and an identifier for the account issued to the account holder by the issuer and upon which a transaction can be conducted between a bearer of the influenza vaccine prepaid card [] and any healthcare provider in a predetermined set thereof.

Id., para. 17.

The influenza vaccine prepaid card [], in some implementation, will not encode data sufficient to identify the patient who is to receive the specific healthcare service. As such the patient can be anonymous to

the entities in the payment processing system (e.g., issuer, acquirer and transaction handler) as well as to the healthcare service provider who provides the specific healthcare service to the patient. Despite the privacy of the patient being maintained by implementations disclosed herein, the healthcare service provider can still be reimbursed from an account identified by data on the influenza vaccine prepaid card. . . . As such, the authorization for the cost of the service, and its guaranteed payment to the healthcare service provider, can be provided in real time, without a benefits manager adjudication, without substantiation of the healthcare service against an insurance policy or formulary, and without an insurance claims system process.

Id., para. 22.

It is apparent from reading the Specification that the focus of the invention is in the processing of a prepaid card having certain particular identifiers to authorize a healthcare provider to administer an influenza vaccine to the bearer of the card while keeping the identity of the bearer of the card anonymous. This is the advance over the prior art and the one that claim 2 describes.

Consistent with the intrinsic evidence, we reasonably broadly construe claim 2 as being directed to processing a prepaid card having certain particular identifiers to authorize a healthcare provider to administer an influenza vaccine to the bearer of the card while keeping the identity of the bearer of the card anonymous.

*The Abstract Idea*⁷

Normally, we would identify in italics in the representative claim the limitations that recite an abstract idea.⁸ However, based on our claim construction analysis (above), it is unnecessary to do so. The subject matter to which claim 2 is directed to, i.e., processing a prepaid card having certain particular identifiers to authorize a healthcare provider to administer an influenza vaccine to the bearer of the card while keeping the identity of the bearer of the card anonymous, is not a matter that falls within the enumerated groupings of abstract ideas; that is “Mathematical concepts,” “Certain methods of organizing human activity,” and “Mental processes.”⁹

⁷ See Step 2A of the 2019 Revised 101 Guidance. Step 2A determines “whether a claim is ‘directed to’ a judicial exception,” such as an abstract idea. *Id.* at 53. Step 2A is a two prong inquiry.

⁸ See Prong One (a) of Step 2A of the 2019 Revised 101 Guidance. “To determine whether a claim recites an abstract idea in Prong One, examiners are now to: (a) Identify the specific limitation(s) in the claim under examination (individually or in combination) that the examiner believes recites an abstract idea” *Id.* at 54.

⁹ See Prong One [“Evaluate Whether the Claim Recites a Judicial Exception”] (b) of Step 2A of the 2019 Revised 101 Guidance. “To determine whether a claim recites an abstract idea in Prong One, examiners are now to: . . . (b) determine whether the identified limitation(s) falls within the subject matter groupings of abstract ideas enumerated in Section 1 of the [2019 Revised 101 Guidance].” *Id.* at 54.

*Improvement in the Functioning of a Computer*¹⁰ (Appellants' Argument)

The Examiner's characterization of what the claim is directed to is inaccurate. The Examiner indicated that the claim 2 is "directed to the abstract idea of comparing new and stored information [and] using rules to identify options." Final Act. 3. But there is more going on than that. The claimed process may involve comparing new and stored information. For example, for the issuer computer to determine whether a transaction is authorized based on the two identifiers, the issuer computer may need to compare the identifiers with acceptable ones. As for "using rules to identify options," we are unsure to what that refers. Indeed, claim 2 describes processing a prepaid card whereby certain particular identifiers are identified in order that a healthcare provider is authorized to administer an influenza vaccine to the bearer of the card while keeping the identity of the bearer of the card anonymous. The method of claim 2 further calls for the issuer computer to "deactivate the identifier associated with the account" if the

¹⁰ See Prong Two ("If the Claim Recites a Judicial Exception, Evaluate Whether the Judicial Exception Is Integrated Into a Practical Application") of Step 2A of the 2019 Revised 101 Guidance. "A claim that integrates a judicial exception into a practical application will 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." 2019 Revised 101 Guidance 54. One consideration, implicated here, that is "indicative that an additional element (or combination of elements) may have integrated the exception into a practical application" (*id.*, at 55) is if "[a]n additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field" (*id.*).

transaction is authorized and if “there are no active identifiers associated with the account included in the prepaid card” the prepaid card itself is deactivated. There are other steps recited. Although, broadly speaking, these are rules that must be followed to practice the claimed method that alone does not make the claim directed to an abstract idea.

Rather, as our claim construction analysis shows, claim 2 is directed to processing a prepaid card having certain particular identifiers to authorize a healthcare provider to administer an influenza vaccine to the bearer of the card while keeping the identity of the bearer of the card anonymous. It is the characterization the Appellants have put forward, e.g., “the claims are drawn to a specific technique for a prepaid influenza device that uses unique influenza identifiers in order to expedite payment to healthcare providers while maintaining anonymity of a patient” (App. Br. 11–12), that is the more accurate characterization.

“The ‘abstract idea’ step of the inquiry calls upon us to look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Tex., LLC v. DirectTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)); *see also Enfish*, 822 F.3d at 1335. As the Federal Circuit stated in *Ancora Technologies, Inc. v. HTC America, Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018):

We examine the patent’s “‘claimed advance’ to determine whether the claims are directed to an abstract idea.” *Finjan, Inc. v. Blue Coat System, Inc.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018). “In cases involving software innovations, this inquiry often turns on whether the claims focus 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.”
Id. (quoting *Enfish*, 822 F.3d at 1335–36); *see BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1285–86 (Fed. Cir. 2018).
Computers are improved not only through changes in hardware; “[s]oftware can make non-abstract improvements to computer technology” *Enfish*, 822 F.3d at 1335; *see Finjan*, 879 F.3d at 1304. We have several times held claims to pass muster under *Alice* step one when sufficiently focused on such improvements.

The Specification’s description of the problem and solution shows the advance over the prior art by the claimed invention is not in the realm of “comparing new and stored information [and] using rules to identify options” (Final Act. 3) but in crafting an influenza vaccine prepaid card that can perform certain functions that can, *inter alia*, enable the authorization of a healthcare provider to administer an influenza vaccine to the bearer of the card. According to the Specification,

A patient’s vaccine is typically paid for by the patient’s insurance company. Substantiation of a healthcare service provided by a healthcare service provider for an insured’s insurance policy, and adjudication of the resultant insurance claim for the healthcare service so provided can involve numerous parties that are required to perform numerous functions. Often, these functions must be performed at substantial overhead costs and before the health service provider can be reimbursed for rendering the healthcare service to the patient. [It] would be an advantage in the relevant arts to provide healthcare service payments to healthcare service providers, such as for vaccine shots, without substantiation or insurance claims system adjudication by a healthcare benefits management entity. Also, there is a need for a system that reduces the costs incurred by healthcare service providers and their patients in the former providing healthcare services to the latter.

Spec., para. 5. The claimed influenza vaccine prepaid card seeks to overcome that problem. But the influenza vaccine prepaid card as claimed is enabled to do even more. It keeps the identity of the bearer of the card

anonymous. And, if the transaction is authorized by the prepaid card, “the identifier associated with the account” on the card is deactivated. And, if “there are no active identifiers associated with the account included in the prepaid card,” then the prepaid card itself is deactivated. In our view, the claim as a whole reflects a specific asserted improvement in technology, rooted in computer technology, over that which was available in the prior art; specifically, the claim describes the use of a particular prepaid card having certain particular identifiers to authorize a healthcare provider to administer an influenza vaccine to the bearer of the card while keeping the identity of the bearer of the card anonymous, among other functions. Accordingly, we find the Appellants argument (*see* App. Br. 11, reproduced above) persuasive, given the present record.

Specific asserted improvements, when claimed, can render claimed subject matter not directed to an abstract idea. *Cf. McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016) (“When looked at as a whole, claim 1 is directed to a patentable, technological improvement over the existing, manual 3-D animation techniques.”)

It should be noted that we have addressed purported specific asserted improvements in technology under step one of the *Alice* framework. This is consistent with the case law. *See Ancora*, 908 F.3d at 1347 (“We have several times held claims to pass muster under *Alice* step one when sufficiently focused on such improvements.”) It can be discussed under step two of the *Alice* framework as well. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354–55 (Fed. Cir. 2014) “[R]ecent Federal Circuit jurisprudence has indicated that eligible subject matter can often be

identified either at the first or the second step of the *Alice/Mayo* [framework].” 2019 Revised 101 Guidance at 53; *see also id. n. 17*.

In any case, there is sufficient evidence in the record before us that the claimed subject matter reflects a specific asserted improvement in technology over that which was practiced in the art and for that reason we determine that independent claim 2, and independent claim 14 which parallels claim 2, and the claims depending therefrom, are not directed to an abstract idea. Accordingly, within the meaning of the 2019 Revised 101 Guidance, we find there is an integration into a practical application.

For the foregoing reasons, the Examiner’s determination under *Alice* step one is not sustainable. Consequently, we do not reach the merits of Examiner’s determination under *Alice* step two.

The rejection is not sustained.

DECISION

The decision of the Examiner to reject claims 2, 5–7, 14, 17, 18, 20, 21, 23, and 28–33 is reversed.

REVERSED