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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BRYAN S. M. CHUA

Appeal 2016-007549
Application 10/893,651
Technology Center 3600

Before THU A. DANG, JOHN A. EVANS, and SCOTT E. BAIN,
Administrative Patent Judges.

EVANS, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellant¹ seeks our review under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–8, 17–24, and 27–35. Reply. Br. 1. Claims 9–16, 25, and 26 are canceled. *Id.* We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.²

¹ The Appeal Brief names the inventor, Bryan S. M. Chua, as the real party in interest. App. Br. 1.

² Rather than reiterate the arguments of the Appellant and the Examiner, we refer to the Appeal Brief (filed November 16, 2015, "App. Br."), the Reply Brief (filed August 1, 2016, "Reply Br."), the Examiner's Answer (mailed June 11, 2016, "Ans."), the Final Action (mailed April 14, 2015, "Final

STATEMENT OF THE CASE

The claims relate to a means of authenticating an individual to a server. *See* Abstract.

INVENTION

Claims 1, 17, 18, 24, and 34 are independent. An understanding of the invention can be derived from a reading of illustrative claim 1, which is reproduced below with some formatting added:

1. A method of granting a user access to a service, wherein a first computer system is a computer system of a service provider, wherein a second computer system is a computer system of an authentication provider, the method comprising:

(a) receiving from the user and storing onto the first computer system a first username, a first password, and a second password, wherein the first username and the first password form a first identity credential;

(b) retrieving a second username, wherein the second username and the second password form a second identity credential, the service provider verifying the first identity credential but not the second identity credential;

(c) forwarding the second identity credential from the first computer system across a network to the second computer system without forwarding the first username or the first password received in (a);

(d) receiving onto the first computer system verification of the second identity credential, wherein the verification is received across the network from the second computer system of the authentication provider, wherein the second computer system of the authentication provider does not store any user

Act.”), and the Specification (filed July 16, 2004, “Spec.”) for their respective details.

identity information, and wherein the verification received in (d) is a result of the authentication provider having verified the second identity credential without having received the first username from the service provider; and

(e) granting the user access to the service if the service provider verifies the first identity credential received in (a) and if the service provider receives verification of the second identity credential from the authentication provider in (d), wherein the granting of (e) is performed by the service provider.

Rejections

Claims 1–8, 17–24, and 27–35 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Ans. 2. The rejections under 35 U.S.C. § 103 have been withdrawn. *Id.*

ANALYSIS

We have reviewed the rejections of claims 1–8, 17–24, and 27–35 in light of Appellant’s arguments that the Examiner erred.

We consider Appellant’s arguments, presented in the Appeal Brief, in an order more suited to the two-step analytical framework set forth in *Alice*. The Supreme Court has instructed us to use a two-step framework to “distinguish[] patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. 2347, 2355.

Claims 1–8, 17–24, and 27–35: NON-STATUTORY SUBJECT MATTER

Appellant argues all claims as a group. App. Br. 8–15. Therefore, we decide the appeal of the § 101 rejection on the basis of illustrative claim 1,

and refer to the rejected claims collectively herein as “the claims.” *See* 37 C.F.R. § 41.37(c)(1)(iv); *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

35 U.S.C. § 101.

Section 101 provides that a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. The Supreme Court has long recognized, however, that § 101 implicitly excludes “laws of nature, natural phenomena, and abstract ideas” from the realm of patent-eligible subject matter, as monopolization of these “basic tools of scientific and technological work” would stifle the very innovation that the patent system aims to promote. *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)); *see also Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294-97 (2012); *Diamond v. Diehr*, 450 U.S. 175, 185 (1981).

Preemption.

Appellant argues the “claimed inventions do not attempt to preempt the entire field of multifactor authentication.” Reply. Br. 16.

Although preemption may denote patent ineligibility, its absence does not demonstrate patent eligibility. *See FairWarning, IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016). We are not persuaded by Appellant’s preemption argument because for claims covering a patent-ineligible concept, preemption concerns “are fully addressed and made moot” by an analysis under the *Mayo/Alice* framework. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). We conduct

such an analysis under the *Mayo/Alice* framework below.

Mayo-Alice Step 1.

The Supreme Court has instructed us to use a two-step framework to “distinguish[] patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. At the first step, we determine whether the claims at issue are “directed to” a patent-ineligible concept. *Id.*

1. Whether the Examiner’s finding that the claims are “directed towards granting user access to a service” is supported with evidence.

The Examiner finds “the claims are directed towards granting user access to a service” which “is a fundamental economic practice and thus, the claims include an abstract idea.” Final Act. 4. The Examiner explains “[f]undamental economic practices have been found as abstract concepts by the [C]ourt.” *Id.*, 5 (citing, generally, to *Alice*).

Appellant contends the Examiner has not provided any evidence for his finding that the claims are directed towards “granting user access to a service” and thus, has failed to establish a *prima facie* case. App. Br. 9. Appellant argues that in *Alice*, “there were various references cited on the record that related to the concept of intermediated settlement.” *Id.*

The Federal Circuit observes that there is no single test or definition to distinguish a patent-eligible claim from a claim directed to an abstract idea. *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 12943 (Fed. Cir. 2016). Instead of a definition or test, the decisional mechanism applied

by the Federal Circuit is a comparison of the accused claims to those of prior cases to determine how similar or parallel claims were decided. *Id.*; see *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016).

The *Alice* Court analyzed the claims at issue as “involv[ing] a method of exchanging financial obligations between two parties using a third-party intermediary to mitigate settlement risk” such that an “intermediary issues irrevocable instructions to the exchange institutions to carry out the permitted transactions.” *Alice*, 134 S. Ct. 2356 (citing *Bilski v. Kappos*, 561 U.S. 593, 130 S. Ct. 3218 (2010)).

For purposes of Step 1 of the *Mayo/Alice* analysis we agree with the Examiner that “the claims are directed towards granting user access to a service” which “is a fundamental economic practice and thus, the claims include an abstract idea.” Final Act. 4.

As explained by Appellant, “[i]t is becoming common for users to make financial transactions across networks.” Spec., ¶ 2. To the transaction between the user and the service provider, Appellant’s claims adds a trusted “authentication provider” that authenticates the user. See Spec. ¶ 9. We find the trusted “authentication provider” is equivalent to “a third-party intermediary” that issues “instructions to the exchange institutions to carry out the permitted transactions.” See *Alice*, 134 S. Ct. 2356. We disagree with Appellant and find the Examiner has provided sufficient evidence to support the finding.³

³ The Examiner provides further evidentiary support by finding Brennan (US 2003/0046551, cited in connection with the withdrawn rejections under

Thus, we agree with the Examiner that, under Step 1 of the *Mayo/Alice* framework, the claims are “directed to” an abstract idea. Therefore, we conclude all claims on appeal are directed to a patent-ineligible abstract idea, i.e., a fundamental economic practice, as found by the Examiner. Final Act. 4.

Mayo/Alice Step 2.

Where, as here, the claims are found to be “directed to” a patent-ineligible concept, we then “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1298). This analysis has been characterized as the search for an “inventive concept”— something sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself. *Id.* (quoting *Mayo*, 132 S. Ct. at 1294).

With respect to *Mayo-Alice* step 2, the Examiner characterizes Appellant as arguing that “receiving usernames and passwords are not fundamental economic practices.” Ans. 5. The Examiner finds such to be a “well-understood, routine, and conventional practice in the field of online

§103) discloses a two-layer authentication scheme similar to the present invention, where a first computer (analogous to the claimed “service provider”) performs a first authentication and forwards credential data to a second computer, and the second computer (analogous to the claimed “authentication provider”) performs a second authentication to grant user access. Ans. 4.

services.” *Id.* And further finds “receiving or transmitting data over a network” is a “basic computer function.” *Id.*

Well-understood, Routine, and Conventional Computer Functions.

The Examiner finds the claimed limitations are merely instructions to implement the abstract idea on a computer and require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry. Final Act. 5. The Examiner finds “receiving, processing, and storing data” and “receiving or transmitting data over a network” are well-understood, routine, and conventional computer functions. Therefore, the recited limitations in independent claims do not amount to significantly more than the abstract idea itself. Ans. 10 (citing *July 2015 Update: Subject Matter Eligibility*).

However, the Examiner describes the claims at such a high level of abstraction and untethered from the language of the claims which all but ensures that the exceptions to § 101 swallow the rule. *See Alice*, 134 S. Ct. at 2354 (noting that “we tread carefully in construing this exclusionary principle [of laws of nature, natural phenomena, and abstract ideas] lest it swallow all of patent law”); *cf. Diamond v. Diehr*, 450 U.S. 175, 189 n. 12, (1981) (cautioning that overgeneralizing claims, “if carried to its extreme, make[s] all inventions unpatentable because all inventions can be reduced to underlying principles of nature which, once known, make their implementation obvious”).

Whether a claim element or combination of elements would have been well-understood, routine, and conventional to a skilled artisan in the relevant

field at a particular point in time may require “weigh[ing] evidence,” “mak[ing] credibility judgments,” and addressing “narrow facts that utterly resist generalization.” *Berkheimer v. HP Inc.*, Order 2017-1437, slip op. 2 (Fed. Cir. May 31, 2018) (quoting *U.S. Bank Nat’l Ass’n ex rel. CWCapital Asset Mgmt. LLC v. The Village at Lakeridge, LLC*, 138 S. Ct. 960, 967 (2018) (quoting *Pierce v. Underwood*, 487 U.S. 552, 561–62 (1988))). The Supreme Court in *Alice* asked whether the claimed activities were “previously known to the industry,” and in *Mayo* asked whether they were “previously engaged in by researchers in the field.” *Berkheimer, Id.* (quoting *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2359 (2014); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)). Indeed, the Court recognized that “in evaluating the significance of additional steps, the § 101 patent-eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap.” *Berkheimer, Id.* (quoting *Mayo*, 566 U.S. at 90). The Federal Circuit acknowledged that ultimately, the question of patent eligibility is one of law but, in fact, every other type of validity challenge is either entirely factual (e.g., anticipation, written description, utility), a question of law with underlying facts (e.g., obviousness, enablement), or a question of law that may contain underlying facts (e.g., indefiniteness). *Id.*, 2–3.

“[W]hether claim limitations recite activities that were well-understood, routine, and conventional in the relevant field at a particular point in time . . . is a question of historical fact, not a legal question of claim scope.” *Id.*, 4, n. 3. Because the patent challenger bears the burden of demonstrating that the claims lack patent eligibility, there must be evidence

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supporting a finding that the additional elements were well-understood, routine, and conventional. *Id.*, 3.

We agree with Appellant that the Examiner has not provided evidence of Record which demonstrates that the specific claim recitations are well-understood, routine, and conventional.

DECISION

The rejection of claims 1–8, 17–24, and 27–35 under 35 U.S.C. § 101 is REVERSED.

REVERSED