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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHANDRA BALASUBRAMANIAN, FRANCIS M. SHERWIN,
MICHAEL A. KERESSEMAN III, and ADAM RATICA

Appeal 2017-004156
Application 14/026,209¹
Technology Center 3600

Before: JOSEPH A. FISCHETTI, ANTON W. FETTING, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's
Final rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Appellants identify CardinalCommerce Corporation as the real party in
interest. Appeal Br. 1.

SUMMARY OF DECISION

THE INVENTION

Appellants claim subject matter that relates to the art of authentication. Spec. ¶ 2.

Claim 1 reproduced below, is representative of the subject matter on appeal.

1. A system comprising:

a storage storing authentication initiatives information for a plurality of payment options, at least some of the authentication initiatives information being for different payment options of the plurality of payment options;

a network interface, to receive and transmit internet communications; and

a computer system, the computer system coupled in communication with the network interface and the storage, the computer system programmed to:

receive a payment information over the internet via the network interface, the payment information identifying a particular payment option of the plurality of payment options, the particular payment option used by a second party with a first party for a transaction, wherein the first party includes an interface to accept payment via the plurality of payment options selectable by the second party, the plurality of payment options being associated with a plurality of different authentication initiatives prescribed thereof;

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determine from the payment information a first authentication initiative from the plurality of authentication initiatives prescribed for the particular payment option;

access the authentications initiatives information corresponding to the first authentication initiative to generate an authentication request in a format in accordance with the first authentication initiative;

address communications for routing the authentication request over the internet via the network interface; and

obtain an authentication determination over the internet via the network interface, the authentication determination in accordance with the first authentication initiative.

App. Br. 21, Claims App.

THE REJECTION

The following rejections is before us for review.

Claims 1–20 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. App. Br. 9; *see also* Final Act. 2, Answer 3.

ANALYSIS

35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1–20 under 35 U.S.C. § 101.

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First,[] determine whether the claims at issue are directed to one of those patent-ineligible concepts. [] If so, we then ask, “[w]hat else is there in the claims before us?” [] To answer that question,[] 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. [The Court] described step two of this analysis as a search for an ““inventive concept””—*i.e.*, an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

Alice Corp. Pty. Ltd. v. CLS Bank Int’l, 134 S.Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept.

Although the Court in *Alice* made a direct finding as to what the claims were directed to, we determine that this case’s claims themselves and the Specification provide enough information to inform one as to what they are directed to.

The steps in representative claim 1 result in:

access the authentications initiatives information corresponding to the first authentication initiative to generate an authentication request in a format in accordance with the first authentication initiative;

address communications for routing the authentication request over the internet via the network interface; and

obtain an authentication determination over the internet via the network interface, the authentication determination in accordance with the first authentication initiative.

The Examiner found that the claims are directed to an abstract idea of “‘authentication initiative’ [which] is an economic principal and considered an abstract idea.” Final Act. 4. The Specification states,

While widely used for more traditional face-to-face transactions, use of standard cards in connection with e-commerce presents certain difficulties, including difficulties concerning authentication or positive identification of the cardholder. For example, maintaining consumer confidence in security has become difficult with increased reports of fraud. The resulting apprehension is also fueled by consumer uncertainty of the reputation or integrity of a merchant with whom the consumer is dealing. Questionable security of the consumer's card information or other personal information typically submitted along with a traditional e-commerce transaction (e.g., address, card number, phone number, etc.) serves to increase apprehension even more. Additionally, cardholders, merchants and financial institutions are all concerned about safeguarding against fraudulent or otherwise

unauthorized transactions. Similarly, other payments methods are concerned with security.

Specification ¶ 4. The Specification states:

a plurality of individual authentication initiative plug-in components 232 that listen to the message distribution layer 220 for a specific message type. The respective plug-in component 232 is activated by the message distribution layer 220 that sends messages to the specified plug-in component 232 based upon the type of payment instrument or method being used for the transaction being processed. For example, as shown, the MAPS 200 optionally includes plug-in components 232 for Visa®, MasterCard® and other payment instruments or methods.

Spec. ¶ 37. The Specification describes:

Suitably, via the thin-client approach (or alternately the direct or easy connection approaches) the MAPS 200 obtains payment information for the transaction from the merchant's server 100. Suitably, the payment information includes a number or name identifying the particular payment instrument or account being used (i.e., the card number or account number or account name), an expiration date, transaction details (i.e., the transaction amount, etc), and other pertinent payment data. In the case of the thin-client approach, the payment information is obtained from the merchant's website or page via the request layer 110 in the form of name/value pairs.

Spec. ¶ 42.

Thus, all this evidence shows that claim 1 is directed to a merchant authentication payment process with plural authentication initiatives prescribed for each of different payment options. It follows from prior Supreme Court cases, and *Gottschalk v. Benson*, 409 U.S. 63 (1972), in

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particular, that the claims at issue here are directed to an abstract idea. A merchant authentication payment process with plural authentication initiatives prescribed for each of different payment options is a fundamental economic practice because it safeguards against fraud. *See* Specification ¶ 4. The patent-ineligible end of the spectrum includes fundamental economic practices. *See Alice*, 134 S.Ct. at 2355–2357; *see also Bilski*, 561 U.S. at 611.

As in *Alice*, we need not labor to delimit the precise contours of the “abstract ideas” category in this case. *Id.* It is enough to recognize that there is no meaningful distinction in the level of abstraction between the concept of an intermediated settlement in *Alice* and the concept of a merchant authentication payment process with plural authentication initiatives prescribed for each of different payment options, at issue here. Both are squarely within the realm of “abstract ideas” as the Court has used that term. *Id.* That the claims do not preempt all forms of the abstraction or may be limited to airline seating, does not make them any less abstract. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1360–61 (Fed. Cir. 2015).

Claim 1, unlike the claims found non-abstract in prior cases, uses generic computer technology to perform data reception, transmission, and linkage and does not recite an improvement to a particular computer technology. *See, e.g., McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (Finding claims not abstract

because they “focused on a specific asserted improvement in computer animation.”).

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two.

[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implemen[t]” an abstract idea “on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional featur[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

Alice, 134 S.Ct. at 2358 (citations omitted).

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Alice* 134 S.Ct. at 2359. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to retrieve, select, and apply decision criteria to data, and thus, modifying the data as a result, amounts to electronic data query and

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retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the industry. *See Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1354 (Fed. Cir. 2016); *see also In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ []those functions can be achieved by any general purpose computer without special programming.”). In short, each step does no more than require a generic computer to perform generic computer functions. As to the data operated upon, “even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *SAP America, Inc. v. Investpic, LLC*, 890 F.3d 1016, 1022 (Fed. Cir. 2018) (citation omitted).

Considered as an ordered combination, the computer components of Appellants’ method add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis-access/display is equally generic and conventional or otherwise held to be abstract. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (Sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction.); *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (Sequence of data retrieval, analysis, modification, generation,

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display, and transmission.); *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (Sequence of processing, routing, controlling, and monitoring.). The ordering of the steps is, therefore, ordinary and conventional.

The method claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. The Specification spells out different generic equipment and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of information access under different scenarios. *See, e.g.*, Spec. ¶¶ 19–21. The Specification does not describe any particular improvement in the manner a computer functions, at least with respect to the claims in the instant application. Instead, the claims at issue amount to nothing significantly more than instructions to apply the abstract idea of information access using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 134 S.Ct. at 2360.

As to the system claims, they

are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long “warn[ed] . . . against” interpreting § 101 “in ways that make patent eligibility ‘depend simply on the draftsman’s art.’”

Id.

We have reviewed all the arguments (Appeal Br. 9–19) Appellants have submitted concerning the patent eligibility of the claims before us that stand rejected under 35 U.S.C. § 101. We find that our analysis above substantially covers the substance of all the arguments, which have been made. But, for purposes of completeness, we will address various arguments in order to make individual rebuttals of same.

Appellants argue “[t]he Examiner provides no support in making the allegation and thus fails to establish a *prima facie* case that the claims are for an abstract idea.” Appeal Br. 10.

We disagree with Appellants. In rejecting the pending claims under section 101, the Examiner analyzed the claims using the *Mayo/Alice* two-step framework, consistent with the guidance set forth in the USPTO’s 2014 INTERIM GUIDANCE ON PATENT SUBJECT MATTER ELIGIBILITY. *See* Final Act. 4. Specifically, the Examiner notified Appellants that the claims are broadly directed to an “‘authentication initiative’ [which] is an economic principal and considered an abstract idea.” *Id.* The Examiner further found, “[s]ince the claim is directed to payment system and while there are many steps regarding authentication the concept of money and a payment system is an economic principal.” *Id.* at 5. Turning to step two, the Examiner determined “[t]he [E]xaminer also acknowledges that the claims include ‘over the internet’ and ‘via the network’ however those elements are not significant enough to overcome the rejection.” *Id.*

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All that is required of the Office to meet its *prima facie* burden of production is that the Examiner set forth the statutory basis of the rejection and the reference or references relied upon in a sufficiently articulate and informative manner as to meet the notice requirement of 35 U.S.C. § 132. As the statute itself instructs, the examiner must “notify the applicant,” “stating the reasons for such rejection,” “together with such information and references as may be useful in judging the propriety of continuing prosecution of his application.” 35 U.S.C. § 132; *see In re Jung*, 637 F.3d 1356, 1363 (Fed. Cir. 2011). Here, as we found above, the Examiner has made these findings as required by the statute. *See* Final Act. 4–5.

Appellants argue,

[t]he features of claim 1 clearly result in improved technical functioning. In particular, the features of claim 1 result in the ability to support multiple different authentication protocols and/or initiatives employed in connection with multiple different payment types or options. . . . Further, the claimed architecture reduces the amount of data that is processed and/or reduces the burden on the processor(s) and/or memory and/or other computing equipment of the merchant and thus improves its technical functioning, as the merchant's equipment does not have to support multiple different authentication protocols and/or initiatives.

Appeal Br. 11.

We disagree with Appellants. The court in *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–1336 (Fed. Cir. 2016), framed the question as

“whether the focus of the claims is on [a] 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.” *Enfish*, 822 F.3d at 1335–1336. Here, as found *supra*, we find nothing in the claims that is directed to an improvement in computer capabilities. The capability of the computer as claimed before us here remains that of a generic computer. That the claimed process allegedly results in the “ability to support multiple different authentication protocols and/or initiatives employed in connection with multiple different payment types or options [(App. Br. 11)],” is not the function of a technical improvement in the computer, e.g., higher speed processor due to circuit construction. Rather, it is merely the normal work by computers invoked as the tool for the process.

Automation to reduce the burden on the user of what once could have been done with pen and paper, does not qualify a mental process for patent eligibility. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011). Also, the subject matter of mental thought cannot distinguish one mental process from another because an abstraction does not change its essence because of its subject matter, and a claim for a new abstract idea is still an abstract idea. *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). Also, “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240–1241 (Fed. Cir. 2016).

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Appellants further argue, “[t]he present claims provide an inventive concept since they otherwise appear to be allowable under § 102 and § 103 (i.e., no rejections of the claims are presently made under relevant sections).” Appeal Br. 12.

We are not persuaded by Appellants’ argument because the standard for patentability under 35 U.S.C. § 103(a) is obviousness, the standard for patentability under 35 U.S.C. § 102 is novelty, and the standard for patent eligibility under 35 U.S.C. § 101 is abstract idea. Each of these standards is separately required to be met before patentability can be conferred on invention, which is not the case here based on the latter standard. The question in step two of the *Alice* framework is not whether an additional feature is novel, but whether the implementation of the abstract idea involves “more than the 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, 1347–1348 (quoting *Alice*, 134 S.Ct. at 2359). As found *supra*, we find nothing which takes the claimed implementation outside of this standard.

Appellants argue,

[t]he claims thus call for a change in authentication processing steps depending upon a determination of the payment instrument type used in connection with a given transaction. This is **NOT** a mere manipulation of data in an abstract manner. The claims call for a physical change in the processing

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steps depending upon outcome determinative
logic.

Appeal Br. 16–17.

We disagree with Appellants that physical change occurs in the context of changing authentication of processing steps. In *Diamond v. Diehr*, 450 U.S. 175 (1981), the Court established eligibility under section 101 for claims containing mathematical formulas when the claim “implements or applies that formula in a structure or process which, when considered as a whole, causes or performs (e.g., transforming or reducing an article to a different state or thing).” *Diamond*, 450 U.S. at 176. In contrast, we fail to see how changing authentication of processing steps transforms an article into a different state or thing.

CONCLUSIONS OF LAW

We conclude the Examiner did not err in rejecting claims 1–20 under 35 U.S.C. § 101.

DECISION

The decision of the Examiner to reject claims 1–20 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED.