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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte XIAO HONG, XIAOLAN SONG, XIN DONG, HUCHEN FEI and LIHUA WANG

Appeal 2017-006691
Application 14/311,821
Technology Center 3600

Before CARL W. WHITEHEAD JR., AMBER L. HAGY and PHILLIP A. BENNETT, *Administrative Patent Judges*.

WHITEHEAD JR., *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants are appealing the final rejection of claims 24−30, 33−35 and 37−42 under 35 U.S.C. § 134(a). Appeal Brief 1. We have jurisdiction under 35 U.S.C. § 6(b) (2012).

We affirm.

Introduction

"The invention provides systems and methods relating to generating a unified determination based on subdeterminations, and in particular, generating a unified score based on respective scores." Specification 2. "The invention provides a novel approach that generates a score that may be used for both front end and back end risk assessment." *Id.* at 4.

Illustrative Claim

24. A system for generating a unified determination based on subdeterminations, the system including:

a first score processor generating a first subdetermination based on first criteria, wherein the first criteria is a front end risk score, and wherein the front end risk score determines if an individual is to be mailed an offer for a financial product;

a second score processor generating a second subdetermination based on second criteria, wherein the second criteria is a back end risk score, and wherein the back end risk score determines if the individual, who is a respondent to the offer, is to be extended the financial product;

a combination score processor generating a unified determination based on the first subdetermination and the second subdetermination, the combination score processor including:

an iteration control portion assigning, using iterative processing, an assigned weighting respectively to the first determination and second determination;

a comparison portion comparing the assigned weighting to an optimized weighting, which was previously determined, to determine if the assigned weighting is improved over the optimized weighting; and if the assigned weighting is improved, then the comparison portion assigning the assigned weighting to be the optimized weighting;

wherein the first subdetermination is a first score, and the second subdetermination is a second score;

wherein the comparison portion comparing the assigned weighting to an optimized weighting to determine if the assigned weighting is improved over the optimized weighting includes:

using a first relationship including first parameters to generate a first result, the first parameters including the first subdetermination, the second subdetermination, the assigned weighting and a first objective parameter; and

using a second relationship including second parameters to generate a second result, the second

> parameters including the first subdetermination, the second subdetermination, the optimized weighting and the first objective parameter, and
>
> comparing the first result to the second result; and
>
> the system constituted by a tangibly embodied computer processing machine.

Rejection on Appeal

Claims 24–30, 33–35 and 37–42 stand rejected under 35 U.S.C. §101 as being directed to patent-ineligible subject matter (abstract idea). Answer 2–4.

ANALYSIS

Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed May 11, 2016), the Reply Brief (filed March 24, 2017), the Answer (mailed January 24, 2017) and the Final Action (mailed December 11, 2015) for the respective details.

35 U.S.C. § 101 Rejection

The Supreme Court has set forth an analytical "framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice Corp. Pty. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71–73 (2012)). In the first step of the analysis, we determine whether the claims at issue are "directed to" a judicial exception, such as an abstract idea. *Alice*, 134 S. Ct. at 2355. If not, the inquiry ends. *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1346 (Fed. Cir. 2017); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016). If the claims are determined to

be directed to an abstract idea, then we consider under step two whether the claims contain an "inventive concept" sufficient to "transform the nature of the claim into a patent-eligible application." *Alice*, 134 S. Ct. at 2355 (quotations and citation omitted).

Noting that the two stages involve "overlapping scrutiny of the content of the claims," the Federal Circuit has described "the first-stage inquiry" as "looking at the 'focus' of the claims, their 'character as a whole,"' and "the second-stage inquiry (where reached)" as "looking more precisely at what the claim elements add--specifically, whether, in the Supreme Court's terms, they identify an 'inventive concept' in the application of the ineligible matter to which (by assumption at stage two) the claim is directed." *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (quotations and citation omitted). In considering whether a claim is directed to an abstract idea, we acknowledge, as did the Court in *Mayo*, that "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 566 U.S. at 71.

Step One: Whether the Claims Are Directed to a Patent-Ineligible Concept (Abstract Idea)

The Examiner finds the claims are directed to an abstract idea because:

> Generating a unified determination based on subdetermination is not a preexisting fundamental truth but rather is a longstanding commercial practice. The concept of generating a unified determination based on subdetermination is a fundamental economic practice long prevalent in our system of commerce, which is in the realm of abstract ideas identified by the Supreme Court. Thus, the claim is directed to the abstract idea of generating a unified determination based on subdetermination.

Final Action 7–8.

Appellants argue, "[t]he Office Action has not conducted a proper 35 U.S.C. § 101 analysis. Instead, it starts with the premise that the invention is nothing more than an abstract idea and then concludes, without support, that the abstract idea has not been practically applied." Appeal Brief 7.

The Federal Circuit has repeatedly noted that "the prima facie case is merely a procedural device that enables an appropriate shift of the burden of production." *Hyatt v. Dudas*, 492 F.3d 1365, 1369 (Fed. Cir. 2007) (citing *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992)). The court has, thus, held that the Office carries its procedural burden of establishing a prima facie case when its rejection satisfies the requirements of 35 U.S.C. § 132 by notifying the applicant of the reasons for rejection, "together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application." *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011). Accordingly, we do not find Appellants' argument persuasive of Examiner error.

Appellants contend, "[t]he Office Action fails to recognize that the claimed features substantially narrow the reach of the claims and are not merely directed to the alleged abstract idea of 'generating a unified determination based on subdetermination.'" Appeal Brief 10 (citing Final Action 8). The Supreme Court and the Federal Circuit have repeatedly made clear that "merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claims any less abstract." *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016).

Appellants argue, "[t]he claims recite an ***admittedly novel and non-obvious*** system and method that performs scoring optimization in generating a unified determination based on a first subdetermination and a second subdetermination using an iteration control portion and a comparison control portion that implements optimized weighting." Appeal Brief 10–11.

As the Federal Circuit has explained, a "'claim for a *new* abstract idea is still an abstract idea.'" *SAP Am., Inc. v. InvestPic, LLC*, No. 2017-2081, 2018 WL 3656048, at *4 (Fed. Cir. Aug. 2, 2018) (quoting *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016)). Even assuming the technique claimed was "'innovative, or even brilliant,'" that would not be enough for the claimed abstract idea to be patent eligible. *See SAP Am.*, 2018 WL 3656048 at *4 (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.* 569 U.S. 576, 591 (2013)).

We have considered all of Appellants' arguments challenging the characterization of the pending claims as being directed to abstract ideas, but we do not find them to be persuasive of error. Rather, we agree with the Examiner, at step one of the *Alice* analysis, that the claims are directed to one or more abstract ideas. Accordingly, we turn to the second step of the *Alice* analysis, in which we determine whether the additional elements of the claims transform them into patent-eligible subject matter.

Step Two: Whether Additional Elements Transform the Idea into Patent-Eligible Subject Matter

The Examiner finds:

> Although a processor acts as the intermediary in the claimed method, the claims do no more than implement the abstract idea of generating a unified determination based on subdetermination. All of these computer functions are "well understood, routine, conventional activit[ies]" previously known to the industry. The

> claims do not purport to improve the functioning of the computer itself, or to improve any other technology or technical field. Use of an unspecified, generic computer does not transform an abstract idea into a patent-eligible invention. Thus, the claim does not amount to significantly more than the abstract idea itself.

Answer 4.

> Appellants contend, in the claims of the instant application:
>
> [V]ery particular steps must be carried out and the claimed invention is limited to situations where "an individual is to be mailed an offer for a financial product," and the claims further involve a novel determination of whether "the individual, who is a respondent to the offer, is to be extended the financial product," as explained above. The detailed requirements in the claims are enough to render the claims patent-eligible under 35 U.S.C. § 101.

Appeal Brief 12–13.

As we stated above, novelty is not enough for the claimed abstract idea to be patent eligible. *See SAP Am.*, 2018 WL 3656048 at *4. Appellants further argue that "[h]ere, it is ***not possible*** for the steps of the claims to be performed without a computer. These claims are not an example of 'implementing an abstract concept faster and more efficiently on a computer' -- instead, the process could not occur absent a computer." Appeal Brief 13. We disagree.

Appellants' Specification makes it clear, however, that off-the-shelf computer technology is usable to carry out the claimed process. *See* Specification 19 ("The system of the invention or portions of the system of the invention may be in the form of a 'processing machine,' such as a general purpose computer, for example. As used herein, the term 'processing machine' is to be understood to include at least one processor

that uses at least one memory.") The claims, therefore, fit into the familiar class of claims that do not "focus . . . on . . . an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools." *Electric Power*, 830 F.3d at 1354.

Appellants further argue:

> Additionally, the claims improve efficiencies, both physical and transactional, for performing scoring optimization in generating a unified determination based on a first subdetermination and a second subdetermination using an iteration control portion and a comparison control portion that implements optimized weighting. Therefore, the claimed embodiments both "improve the functioning of the computer itself" and "effect an improvement in [a] technical field."

Appeal Brief 14.

Appellants' assertion that a general purpose computer can be patent-eligible is not applicable to the claims of the instant application. We find Appellants' claims are distinguished from those claims that our reviewing court has found to be patent eligible by virtue of reciting technological improvements to a computer system. *See, e.g.*, *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1249, 1257 (Fed. Cir. 2014) (holding that claims reciting computer processor for serving "composite web page" were patent eligible because "the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks").

The Federal Circuit has repeatedly confirmed since *Alice* that the category of abstract ideas embraces "fundamental economic practice[s] long prevalent in our system of commerce," including "longstanding commercial practice[s]" and "method[s] of organizing human activity." *E.g.*, *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313 (Fed. Cir. 2016)

(quotations and citation omitted). Our reviewing court has explained that claims directed to "the mere formation and manipulation of economic relations" and "the performance of certain financial transactions" are properly held to be directed to abstract ideas. *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014); *see also, e.g.*, *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (finding computer-implemented system for "using advertising as a currency [on] the Internet" to be ineligible); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1352, 1355 (Fed. Cir. 2014) (finding computer-implemented system for guaranteeing performance of an online transaction to be ineligible); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011) (finding computer-implemented system for "verifying the validity of a credit card transaction over the Internet" to be ineligible).

Also, our reviewing court has repeatedly held that information collection and analysis, including when limited to particular content, is within the realm of abstract ideas. *See, e.g.*, *Elec. Power Grp.*, 830 F.3d at 1353 (holding that "collecting information, analyzing it, and displaying certain results of the collection and analysis" are "a familiar class of claims 'directed to' a patent-ineligible concept"); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (claims directed to collecting information and analyzing it according to certain rules were directed to an abstract idea); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011) (computer-implemented system for "verifying the validity of a credit card transaction[] over the Internet" was patent-ineligible).

Appellants further argue:

> Moreover, the claimed details are narrowly defined and are tied to a specific system and method. These limitations are not necessary or obvious tools for performing scoring optimization, in general, and they ensure that the claims do not preempt the field this field. Accordingly, the eligibility of this subject matter will not preclude the use of other types of scoring optimization tools. As recognized by the PTO, these improvements qualify as "significantly more."

Appeal Brief 14.

We agree the Supreme Court has described "the concern that drives this exclusionary principle [i.e., the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption." *Alice*, 134 S. Ct. at 2354. But characterizing pre-emption as a driving concern for patent eligibility is not the same as characterizing preemption as the sole test for patent eligibility. As our reviewing court has explained, "[t]he Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability" and "[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2354). And although "preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Id.* Moreover, "[w]here a patent's claims are deemed only to disclose patent ineligible subject matter under the *[Alice/Mayo]* framework . . ., preemption concerns are fully addressed and made moot." *Id.; see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 701 (2015) ("[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.").

We agree with the Examiner's findings that the claims do not amount to significantly more than the abstract idea itself. Accordingly, we sustain the Examiner's 35 U.S.C. §101 rejection of claims 24–30, 33–35 and 37–42.

DECISION

The Examiner's 35 U.S.C. § 101 rejection of claims 24–30, 33–35 and 37–42 is affirmed.

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

AFFIRMED