



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
11/384,231 03/17/2006 David R. Anderson P186386.US.01 9533

25763 7590 03/06/2019
DORSEY & WHITNEY LLP - MINNEAPOLIS
ATTENTION: PATENT PROSECUTION DOCKETING DEPARTMENT
INTELLECTUAL PROPERTY PRACTICE GROUP - PT/16TH FL
50 SOUTH SIXTH STREET, SUITE 1500
MINNEAPOLIS, MN 55402-1498

Table with 1 column: EXAMINER

REYES, REGINALD R

Table with 2 columns: ART UNIT, PAPER NUMBER

3626

Table with 2 columns: NOTIFICATION DATE, DELIVERY MODE

03/06/2019

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.docket@dorsey.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID R. ANDERSON, JEAN RAWLINGS, and
JONATHAN B. ARTHUR

Appeal 2017-011433
Application 11/384,231
Technology Center 3600

Before STEPHEN C. SIU, JENNIFER L. McKEOWN, and
SCOTT B. HOWARD, *Administrative Patent Judges*.

McKEOWN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants¹ appeal under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1, 4–9, and 12–16. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ According to Appellants, the real party in interest is OptumInsight, Inc. App. Br. 3.

STATEMENT OF THE CASE

Appellants' disclosed and claimed invention "relates, in general, to data processing techniques, and more specifically to analyzing healthcare data." Spec. 1, ll. 5–6. More specifically, the claimed invention is directed to "a system and method for identifying aberrations in treatment pattern for a medical condition." Abstract.

Claim 1 is illustrative of the claimed invention and reads as follows:

1. In a computerized system for identifying aberrations in treatment pattern for a medical condition so that fraud or over utilization may be identified, a method comprising:

receiving healthcare claim data into an analysis engine, wherein the healthcare claim data represents medical procedures received by a plurality of patients for treatment of one or more medical conditions;

receiving into the analysis engine medical condition selection data transmitted from an electronic user interface, wherein the medical condition selection data identifies a selected medical condition to be analyzed by the analysis engine;

using the analysis engine to identify a group of healthcare claim data to be analyzed, wherein the group of healthcare claim data to be analyzed comprises claim data representing substantially all medical procedures received by the plurality of patients for treatment of the selected medical condition;

using the analysis engine to generate actual treatment pattern data representing the medical procedures received for treatment of the selected medical condition using the identified group of healthcare claim data and displaying the actual treatment pattern data as points plotted on a graph, wherein one axis provides treatment dates in chronological order and another axis provides relevant healthcare services for the medical condition;

receiving into the analysis engine provider selection data transmitted from the electronic user interface, wherein the provider selection data identifies a selected healthcare provider

treating one or more patients having the selected medical condition;

using the analysis engine to identify healthcare claim data for the one or more patients having the selected medical condition and treated by the selected healthcare provider;

using the analysis engine to generate provider treatment pattern data representing substantially all medical procedures received by the one or more patients of the selected healthcare provider for treatment of the selected medical condition using the identified healthcare claim data for the one or more patients and displaying the provider treatment pattern data as data points plotted on a graph, wherein one axis provides treatment dates in chronological order,

wherein the treatment dates have been normalized around an anchor date, and another axis provides relevant healthcare services for the medical condition;

using the analysis engine to compare the provider treatment pattern data and the actual treatment pattern data;

generating comparison data representing the results of the comparison;

displaying a comparison overlay graph that shows the actual treatment pattern data graph and the provider treatment pattern data graph; and

using the analysis engine to generate a notification responsive to the comparison overlay graph indicating potential fraud or over utilization.

THE REJECTION

The Examiner rejected claims 1, 4–9, and 12–16 under 35 U.S.C. § 101 as directed to patent ineligible subject matter. Final Act. 2–5.

ANALYSIS

Based on the record before us, we are not persuaded that the Examiner erred in rejecting claims 1, 4–9, and 12–16 as directed to patent ineligible subject matter.

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, i.e., the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 184 n.7 (quoting *Corning v. Burden*, 56 U.S.

252, 267–68 (1853)); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; *see also id.* at 192 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must 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*, 573 U.S. at 221 (citation omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The PTO recently published revised guidance on the application of section 101. USPTO’s January 7, 2019 Memorandum, 2019 *Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Memorandum”). Under that guidance, we first look to whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and

(2) additional elements that integrate the judicial exception into a practical application (see MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 2106.05(a)-(c), (e)-(h) (9th Ed., Rev. 08.2017, Jan. 2018)).

See Memorandum at 52, 55–56. Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that are not “well-understood, routine, conventional” in the field (see MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See Memorandum at 56.

Under the first step of the eligibility analysis, the Examiner determines that the claimed invention is directed to an abstract idea. For example, the Examiner explains that:

The limitations of receiving healthcare claim data and analyzing the data then using the analyzed data to generate a treatment plan is similar to that of collecting and analyzing information and notifying a user, and also similar to collecting, analyzing and displaying certain results of the collection and analysis. Therefore the examiner identified the abstract idea.

Ans. 2–3; *see also* Ans. 2–3 (discussing that the claims are similar to the abstract ideas of *Cyberfone*, *SmartGene*, *FairWarning*, and *Electric Power Grp*). The Examiner further identifies that the claimed system is a system for performing medical research. Final Act. 4.

Appellants, on the other hand, assert that the claimed invention is not directed to an abstract idea. App. 8–9. Specifically, Appellants argue that the Examiner oversimplifies the claims and “the alleged abstract idea is a broad, generic statement that is completely detached from the claimed language.” App. Br. 8–9; *see also* Ans. 2–3. For example, Appellants contend that

the alleged abstract idea fails to take into account specifically recited steps and components in the claims, such as healthcare claim data detailing medical procedures, medical condition selection data detailing medical conditions, and provider selection data which are used to create actual treatment pattern data and provider treatment data and “using the analysis engine to generate a notification responsive to the comparison overlay graph indicating potential fraud or over utilization.”

App. Br. 9. Further, Appellants assert that the claimed invention is “directed to a particular implementation of a particular method implemented with particular data and operations.” App. Br. 9.

We find Appellants’ arguments unpersuasive. The Examiner correctly identifies that the claims are directed to the abstract idea of collecting various medical treatment data, including, for example, data

representing medical procedures for one or more medical conditions and provider selection data, and using the collected data to compare or analyze patterns between actual treatment and treatment by a selected healthcare provider to identify potential fraud or over utilization. *See, e.g.*, Ans. 3. In other words, the claimed invention broadly recites a computerized method for collecting and comparing medical treatment data to identify fraud or over utilization, which is a mental process. *See, e.g., SmartGene, Inc. v. Advanced Biological Laboratories, SA*, 555 Fed. Appx. 950, 955 (Fed. Cir. 2014) (finding that “the claim at issue here involves a mental process excluded from section 101: the mental steps of comparing new and stored information and using rules to identify medical options.”).

As the Examiner points out, the claimed abstract idea here is similar to those of *SmartGene, Inc. v. Advanced Biological Laboratories, SA*, 555 Fed. Appx. 950 (Fed. Cir. 2014), *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089 (Fed. Cir. 2016), and *Elec. Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016). For example, the Federal Circuit in *SmartGene* explained that the claimed invention did “no more than call on a ‘computing device,’ with basic functionality for comparing stored and input data and rules, to do what doctors do routinely.” *SmartGene*, 555 Fed.Appx at 954. The claims here similarly perform a comparison of collected medical treatment data, a mental process, to identify potential fraud or over utilization. *See* Memorandum at 52.

FairWarning is likewise applicable. The Federal Circuit in *FairWarning* found ineligible claims directed to “the concept of analyzing records of human activity to detect suspicious behavior.” *FairWarning*, 839 F.3d at 1092. There, the Court explained that the claimed method

collects information regarding accesses of a patient's personal health information, analyzes the information according to one of several rules (i.e., related to accesses in excess of a specific volume, accesses during a pre-determined time interval, or accesses by a specific user) to determine if the activity indicates improper access, and provides notification if it determines that improper access has occurred.

Id. at 1093. The claims here are similar – collecting data representing human behavior, analyzing it including presenting the data as a pattern of data points plotted on a graph, and comparing the data to determine if there was fraudulent activity.

Similarly unpersuasive is Appellants' argument that generating treatment pattern data and generating comparison data “do not fall into a category of ‘collecting and analyzing information and notifying a user’ or ‘collecting, analyzing, and displaying certain results of the collection and analysis.’” *See* Reply Br. 3. As the Specification identifies, the generated treatment pattern data and comparison data are merely a presentation of plotted data points. *See, e.g.*, Figs. 4, 5, and 14. As such, we are not persuaded that the Examiner erred in determining that the claimed invention is directed to an abstract idea.

We next determine that the claimed invention does not integrate the abstract idea into a practical application. The claimed invention is not directed to a technological improvement nor do they improve the functioning of a computer. Instead, the claims merely implement the abstract idea on a computer. As the Examiner explains, “[t]hough the claims arguably improve the process of generating a treatment plan and generating comparison data, it still just an improvement to the process of generating

treatment pattern using a generic processor. It does not improve the computer technology itself.” Ans. 4; *see also* MPEP § 2106.05(f).

Appellants argue that “the claims do not extend to the use of any type of categories to organize, store, and transmit any type of information” and thus “the claimed method is directed to a particular implementation of a particular method implemented with particular data and operations.” App. Br. 9. We disagree. While the claimed invention is collecting and analyzing medical treatment pattern data, not just any data, this does not alter that comparing the collected medical treatment pattern data is a mental process. *See, e.g., Affinity Labs of Texas, LLC v. DirecTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016) (“The Supreme Court and this court 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.”); MPEP 2106.05(h); *see also* Ans. 2–3 (noting that the claimed particular method with particular data and operation is akin to the abstract ideas of *Cyberfone*, *SmartGene*, *FairWarning*, and *Electric Power*).

We further note that certain claimed steps, such as displaying a comparison overlay graph and generating a notification in response to potential fraud and over utilization, is insignificant extra-solution activity to the abstract idea. *See, e.g., CyberSource v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011); MPEP 2106.05(g). As such, the claimed invention does not integrate the abstract idea into a practical application.

With respect to step two of the eligibility analysis, the Examiner determines:

The claimed elements of the recited system do not add meaningful limitations to the identified abstract idea(s) claimed beyond generally linking the judicial exception to a particular

technological environment, that is, implementation via computers. Thus, taken alone and in combination, the additional elements do not amount to significantly more than the above-identified abstract idea.

Final Act. 5. The Examiner further explains that while the claims “arguably improve the process of generating a treatment plan and generating comparison data, [the claimed invention] still just an improvement to the process of generating treatment pattern using a generic processor. It does not improve the computer technology itself.” Ans. 4.

Appellants argue that the claims amount to significantly more than the abstract idea. App. Br. 10. Specifically, Appellants assert that:

the Office Action fails to actually consider the elements of the claim as a whole. Rather, the Office Action attempts to fit a square peg into a round hole by rephrasing the claim limitations into terms that better suit the rejection and ignoring those parts of the claims that are inconvenient to the foregone conclusion of ineligibility.

App. Br. 10. Appellants particular point to the limitations of using the analysis engine generating provider treatment pattern data, using the analysis engine to compare treatment pattern data, and using the analysis engine to generate a notification to “demonstrate that the claims contain limitations that amount to significantly more than the abstract idea[.]” Reply Br. 3.

We find Appellants’ arguments unpersuasive. As discussed above, the claimed invention collects various data, generates a visual display of that data, and generates a notification in response to the collected data. *See, e.g.*, Spec. Figs. 4, 5, and 14 (demonstrating that generating treatment pattern data is merely displaying of data points). The Federal Circuit, in considering step 2 of the eligibility analysis, has found similar steps of collecting, analyzing and displaying of data “does nothing significant to differentiate a process

from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas.” *Electric Power*, 830 F. 3d. at 1355; *see also id.* (“Merely requiring the selection and manipulation of information—to provide a “humanly comprehensible” amount of information useful for users [] by itself does not transform the otherwise-abstract processes of information collection and analysis.”); *SmartGene*, 555 Fed.Appx at 955 (finding that a computer comparing stored and input data using rules does not render the claims eligible under step 2 of the eligibility analysis).

We are also not persuaded of error by Appellants’ argument that the conclusion that the claims were “novel and nonobvious tends to show that the claim elements, when considered as an ordered combination, include significantly more than merely routine, conventional, and well-understood components.” Although the second step in the *Alice/Mayo* analysis includes a search for an inventive concept, the analysis is not an evaluation of novelty or nonobviousness, but rather, a search for “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*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1294). A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 132 S. Ct. at 1304. Further, “under the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility.” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016). As such, based on the record before us, we are not persuaded that the Examiner erred in

Appeal 2017-011433
Application 11/384,231

determining that the claimed invention is directed to ineligible subject matter.

Accordingly, we affirm the Examiner's decision to reject claims 1, 4–9, and 12–16 as directed to patent ineligible subject matter.

DECISION

We affirm the Examiner's decision to reject claims 1, 4–9, and 12–16.

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

AFFIRMED