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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHRISTOPHER A. HANE, VIJAY S. NORI,
JEAN W. RAWLINGS, DAVID R. ANDERSON,
REGINA GOGOL and JOHN M. BRILLANTE

Appeal 2017-002217
Application 13/200,462
Technology Center 3600

Before CAROLYN D. THOMAS, CARL W. WHITEHEAD JR. and
JEREMY J. CURCURI, *Administrative Patent Judges*.

WHITEHEAD JR., *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants are appealing the final rejection of claims 1, 3, 4, 6, 8–10, 12, 13, 15, 17, 18 and 22 under 35 U.S.C. § 134(a). Appeal Brief 13–20. We have jurisdiction under 35 U.S.C. § 6(b) (2012).

We affirm.

Introduction

The invention is directed to, “comparing healthcare data and more particularly relates to an apparatus, system, and method for comparing healthcare data.” Specification, paragraph 2.

Illustrative Claim

1. A computer-implemented method for analyzing healthcare information in a computer system specially configured for comparing healthcare data comprising:

receiving healthcare data including indicia indicating the healthcare data is for geographic regions, the healthcare data comprising healthcare data structured as healthcare variables stored in a first database; and healthcare data structured as clinical data stored in a second database;

analyzing, with the computer system specially configured for comparing healthcare data, one or more healthcare variables for geographic regions, where analyzing the one or more healthcare variables comprises:

assigning in the computer system specially configured for comparing healthcare data each geographic region to one of N clusters in response to the one or more healthcare variables, where N is a number greater than 1, each geographic region in a cluster has similar health care variables, and each cluster comprises at least a first geographic region and a second geographic region, where the first geographic region is non-contiguous with the second geographic region;

identifying, in the computer system specially configured for comparing healthcare data, a group of statistically similar clusters from the N clusters;

unassigning in the computer system specially configured for comparing healthcare data each geographic region assigned to clusters not in the identified group of statistically similar clusters; and

reassigning in the computer system specially configured for comparing healthcare data each unassigned geographic region to a cluster in the identified group of statistically similar clusters;

analyzing, with the computer system specially configured for comparing healthcare data, the clinical data for geographic regions, where analyzing the clinical data comprises:

determining in the computer system specially configured for comparing healthcare data a primary magnitude for each geographic region of a primary measure by quantifying a value of the primary measure within each of the geographic regions;

determining in the computer system specially configured for comparing healthcare data a secondary magnitude for each geographic region of a secondary measure by quantifying a value of the secondary measure within each of the geographic regions;

comparing with the computer system specially configured for comparing healthcare data the primary magnitude to the secondary magnitude for each geographic region; and

displaying the analysis of the one or more healthcare variables in combination with the analysis of the clinical data, wherein displaying comprises overlaying the analysis of the clinical data on the analysis of the healthcare variables.

Rejection on Appeal

Claims 1, 3–4, 6, 8–10, 12–13, 15, 17–18 and 22 stand rejected under 35 U.S.C. §101 because of the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Final Rejection 2–3.

ANALYSIS

Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed July 6, 2016), the Reply Brief (filed December 5, 2016), the Answer (mailed October 6, 2016) and the Final Action (mailed February 8, 2016) 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. Ltd. 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

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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). 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 that the claims are directed to an abstract idea because, “Processing healthcare information is an abstract idea because it uses categories to organize, store, and transmit information, etc.; collecting and comparing known information; obtaining and comparing intangible data; and/or comparing new and stored information; comparing data using mathematical/relationships/formulas; etc.” Final Action 2. Appellants recite:

“The fact that a claim is directed to an improvement in computer-related technology can demonstrate that the claim does not recite a concept similar to previously identified abstract ideas.” *See* The Office’s May 19, 2016 Memorandum “Recent Subject Matter Eligibility Decisions.”

Appeal Brief 15.

Our reviewing court has held:

We do not read *Alice* to broadly hold that all improvements in computer-related technology are inherently abstract and, therefore, must be considered at step two. Indeed, some improvements in computer-related technology when appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like. Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract and therefore only properly analyzed at the second step of the *Alice* analysis. Software can make non-

abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route. We thus see no reason to conclude that all claims directed to improvements in computer-related technology, including those directed to software, are abstract and necessarily analyzed at the second step of *Alice*, nor do we believe that *Alice* so directs. Therefore, we find it relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the *Alice* analysis.

Enfish, 822 F.3d at 1335.

Appellants contend the claims are directed to a solution to a problem in the software arts and argue:

As explained in the background of the application (paras. [0003] to [0005]), there were known solutions for representing healthcare variable information and known solutions for representing clinical data information. However, there was no known software solution for representing information from both data sets together in a usable way due to the lack of commonality in the data structures, even though there would be benefits to being able to analyze the data in relation.

Appeal Brief 15–16.

We do not find Appellants’ argument persuasive. 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 2207254, at *1 (Fed. Cir. May 15, 2018) (*quoting Synopsis, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016)). The claims 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. (*See also* Ans. 4–5: “[I]mproving the user experience of a physician interacting with a computer is not improving the functioning of the computing itself.”).

Appellants further argue:

In particular, in the present case, as in *DDR Holdings*, the claims do not recite a fundamental economic or longstanding commercial practice. While the claims involve a computer, these claims stand apart, because they do not merely recite some business practice known from the pre-Internet or pre-computer world along with the requirement to perform it on the Internet or a computer. Rather, the claimed solution is necessarily rooted in computer technology to overcome a problem specifically arising with healthcare data processing systems: getting usable information out of the volumes of healthcare variable information and clinical data and to extract information from those data sets and transform that information into an understandable structure for further use and analysis. Like the claimed invention in *DDR Holdings* the present claims should be found patent subject matter eligible.

Appeal Brief 16–17.

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*, 773 F.3d at 1249, 1257 (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”). Unlike *DDR*, Appellants do not claim to change how the underlying technology operates. Claim 1 merely recites a computer implemented method that analyzes healthcare information on a general non-descriptive computer system.

Further, 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

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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”) and *Fair Warning 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).

We agree with the Examiner’s finding that at step one of the *Alice* analysis, the claims are directed to one or more abstract ideas. We now turn to the second step of the *Alice* analysis, in which we must 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:

[T]he claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements or combination of elements in the claims, other than the abstract idea *per se*, amount to no more than a recitation of (A) a generic computer structure(s) that serves to perform generic computer functions that serve to merely link the abstract idea to a particular technological environment (e.g., a computer system, a data storage device, a server, etc.); and (B) functions that are well-understood, routine, and conventional activities previously known to the pertinent industry (e.g., receiving healthcare data, analyzing healthcare data, comparing healthcare data, etc.). For example, paragraph [0060] of applicant's specification recites that system/method is implemented using a general purpose CPU or microprocessor which is a generic type computer.

Final Action 2–3.

Appellants contend independent claims 1, 10 and 22 satisfy the second step of the patent matter eligibility test under *Alice* by adding significantly more than an abstract idea because:

The methods in independent claims 1 and 22, and computer system in independent claim 10 add meaningful limitations that do not preempt other uses of the alleged abstract idea, such as the iterative process where variables are assigned and unassigned, as the clusters are transformed into structures suitable for combining with the clinical data. Such data transformation steps, in combination with the other elements as a whole, improve the technology of analyzing healthcare information by providing a way to analyze healthcare variables and clinical data as recited in the claims.

Appeal Brief 18.

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.

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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 ecommerce setting do not make them any less abstract.”).

Appellants contend, the claimed “improvement to computer-implemented methods and systems for analyzing healthcare information is akin and analogous to the patent eligible subject matter of *Research Corporation Technologies Inc. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010) which involved additional steps that tie an abstract idea (a mathematical operation involving a blue noise mask) to the processor's ability to process digital images.” Appeal Brief 18.

Appellants further contend that “Consistent with the *Enfish* case discussed hereinbefore, and the *Research Corp. Tech.* case, the claims in the application under appeal are patentable subject matter eligible, and the rejections should be overturned” and :

Moreover, the recitations of the various modules in claim 10 are not generic computer elements. The modules recited in detail are tailored to the types of computing systems that analyze healthcare data of the present disclosure and specially configured as noted above. For example, these modules may be specially tailored hardware circuits, as affected by program code or as may be implemented in application-specific hardware, for the claimed technical solution and transformation of data. *See* para. [0044] to [0046] and [0072].

Appeal Brief 20.

We find no parallel here between Appellants’ claims and the claims in *Enfish* or *Research Corp. Techs.*, nor any comparable aspect in Appellants’ claims that represents “an improvement to computer functionality.” The alleged advantages that Appellants tout do not concern an improvement to computer capabilities but instead relate to an alleged improvement in

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analyzing healthcare information by providing a way to analyze healthcare variables and clinical data wherein a computer is used as a tool in its ordinary capacity to analyze the data. Subsequently, we sustain the Examiner's 35 U.S.C. § 101 rejection of claims 11, 3-4, 6, 8-10, 12-13, 15, 17-18 and 22 not argued separately. *See* Appeal Brief 21.

DECISION

The Examiner's 35 U.S.C. §101 rejection of claims 1, 3-4, 6, 8-10, 12-13, 15, 17-18 and 22 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