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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHARLES CORFIELD

Appeal 2017-010205¹
Application 13/410,971²
Technology Center 3600

Before JAMES B. ARPIN, J. JOHN LEE, and
JOSEPH P. LENTIVECH, *Administrative Patent Judges*.

ARPIN, *Administrative Patent Judge*.

I. DECISION ON APPEAL

Appellant appeals, under 35 U.S.C. § 134(a), the Examiner’s decision rejecting claims 1, 2, 6, 7, 10, 13, 15, and 17–19. App. Br. 2. Claims 3–5, 8, 9, 11, 12, 14, 16, and 20 are cancelled. Spec. 21–25. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ In this Decision, we refer to Appellant’s Appeal Brief (“App. Br.,” filed April 1, 2016) and Reply Brief (“Reply Br.,” filed December 9, 2016); the Non-Final Office Action (“Non-Final Act.,” mailed November 5, 2015); the Examiner’s Answer (“Ans.,” mailed October 12, 2016); and the originally filed Specification (“Spec.,” filed March 2, 2012).

² According to Appellant, the real party-in-interest is NVOQ, Inc. App. Br. 2.

II. STATEMENT OF THE CASE

Appellant explains that a networked computer system, such as those recited in claim 18,

is configured to receive transcribed medical records related to a patient medical encounter and compare the medical records to databases containing approved invoice codes for medical encounters. The networked computer system determines a plurality of applicable codes that could be used for invoicing the medical encounter and ranks the applicable codes based on an accepted reimbursement value.

In certain embodiments, the technology of the present application may relate to a networked computer system configured to receive an audio file associated with the dictated notes of a health care provider documenting the medical encounter. The networked computer system would route the audio file to a speech to text engine that would convert the audio file to a textual file. The textual file optionally may be reviewed for accuracy. The textual file may be returned in real or near real time.

Spec. ¶¶ 11, 12. Apparatus, such as those recited in claim 1, and methods, such as those recited in claims 7 and 13, perform operations and steps similar to those described with respect to the networked computer systems. *See id.* ¶ 3.

As noted above, claims 1, 2, 6, 7, 10, 13, 15, and 17–19 are pending. Claims 1, 7, 13, and 18 are independent, and independent claims 7, 13, and 18 recite “a speech to text engine” or its use. *See App. Br. 15–19 (Claims App’x)*. Claims 2 and 6 depend directly from claim 1, claim 10 depends directly from claim 7, claims 15 and 17 depend directly from claim 13, and claim 19 depends directly from claim 18. *Id.*

Claim 7, reproduced below, is illustrative.

7. A method of generating a patient health record using at least one processor, the method comprising the steps of:

receiving audio describing a patient encounter of a health care provider;

transcribing the audio using a speech to text engine to data and inputting the data to an electronic health record;

recognizing from the data transcribed by the speech to text engine at least one key data;

comparing the at least one key data to a database of accepted medical codes;

identifying at least one accepted medical code for each of the at least one key data;

replacing the at least one key data with each of the at least one accepted medical code;

generating a modified electronic health record using the at least one accepted medical code for each of the key data;

transmitting the modified electronic health record to the health care provider;

selecting a medical code from the at least one accepted medical codes;

determining a plurality of insurance codes based on the at least one accepted medical codes;

calculating a reimbursement value for each of the plurality of insurance codes;

ranking each of the insurance codes based on the calculated reimbursement value;

equating the medical codes with the ranked insurance codes such that the medical codes are displayed from highest reimbursement value insurance code to lowest reimbursement value insurance code;

displaying the equated medical codes; and

receiving a selection of the displayed equated medical codes by the healthcare provider.

Id. at 16–17 (Claims App’x).

III. THE REJECTION

Claims 1, 2, 6, 7, 10, 13, 15, and 17–19 stand rejected under 35 U.S.C. 101 because the recited apparatus, methods, and systems are directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Ans. 2; *see* Non-Final Act. 3.³ Unless otherwise indicated, we adopt the Examiner’s findings in the Answer as our own and add any additional findings of fact appearing below for emphasis. We address these rejections below.

IV. ANALYSIS

Under 35 U.S.C. § 101, a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” The U.S. Supreme Court has “long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *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)). The Court in *Alice* reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct.

³ In light of the Office’s issuance of new guidance regarding rejections under 35 U.S.C. § 101 after the mailing of the Non-Final Action, the Examiner identified a new ground of rejection in the Answer and provides analysis of the previous rejections under 35 U.S.C. § 101 consistent with that guidance. Ans. 7; *see* App. Br. 8.

1289, 1296–98 (2012), “for distinguishing 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. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts,” such as an abstract idea. *Id.*

The Court acknowledged in *Mayo* that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 132 S. Ct. at 1293. We, therefore, look to whether the claims focus on a specific method or means that improves the relevant technology, or are directed instead to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.

See Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335–36 (Fed. Cir. 2016). If the claims are not directed to an abstract idea, the inquiry ends. *Id.* at 1339; *Ancora Techs., Inc. v. HTC America, Inc.*, 908 F.3d 1343, 1349 (Fed. Cir. 2018) (“It therefore passes muster under *Alice* step one, as it is not directed to patent-ineligible subject matter. We need not and do not apply step two of the *Alice* analysis.”). Otherwise, the inquiry proceeds to the second step in which the elements of the claims are considered “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 1297, 1298). That is whether the claims recite elements making the claims *significantly more* than the judicially excepted subject matter.

Having found that each of the pending claims is directed towards a statutory category, the Examiner focused on the two-step *Alice* analysis. Ans. 3; *see* Non-Final Act. 3.

A. Alice Step One

With regard to the first step of the *Alice* analysis, the Examiner determines that:

Independent claims 1, 7, 13 and 18 are directed to the abstract idea of **recognizing data in the electronic patient health record and recognizing key data from that data**; comparing the key data to accepted medical codes and determine a plurality of applicable accepted medical codes that corresponds to the key data of the patient encounter; identifying a plurality of insurance codes for each of the determined plurality of applicable accepted medical codes; **calculating a reimbursement value for the plurality of insurance codes and ranking the calculated reimbursement values.**

Ans. 3; *see* Non-Final Act. 3.

Consistent with the Office’s then-current guidance, the Examiner notes the Federal Circuit previously found components of the abstract idea to be themselves abstract. Ans. 3–4; *cf.* Non-Final Act. 3–4. In particular, the Examiner finds that:

Recognizing key data, comparing key data to accepted medical codes to determine applicable medical codes and identifying insurance codes corresponding to the determined applicable medical codes as described in Applicant’s claimed invention is directed to an abstract idea as it is analogous to the concept of comparing new and stored information and using rules to identify options as was found to be abstract in [*SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App’x 950 (Fed. Cir. 2014) (“*SmartGene*”)]. As described in paras. [0033]–[0035] of the Specification key data is recognized according to a rules database and then a database of insurance codes is accessed to identify a plurality of insurance invoice codes. Calculating a reimbursement value is organizing information through mathematical correlations as was found to be abstract in [*Digitech Image Techs. v. Electronics for Imaging*, 758 F.3d 1344 (Fed. Cir. 2014) (“*Digitech*”)]. Specification

para. [0030] teaches that the determination is accomplished using a formula or a look up in a reimbursement database. Ranking the reimbursement values is similar to using categories to organize, store and transmit information, an abstract concept from [*Cyberfone Sys., LLC v. CNN Interactive Grp, Inc.*, 558 Fed. App'x 988 (Fed. Cir. 2014) (“*Cyberfone*”)].⁴

Ans. 3–4; *see id.* at 7; *see also* MPEP 2106.04(a)(2)(II)(D)(ii) (“collecting information, analyzing it, and displaying certain results of the collection and analysis, *Electric Power Group, LLC v. Alstom, S.A.*, 830 F.3d 1350, 1351-52 . . . (Fed. Cir. 2016)”), (iv) (“organizing information through mathematical correlations, [*Digitech*, 758 F.3d at 1349]”).

Finally, the Examiner finds that “[u]sing categories to organize, store and transmit information, comparing new and stored information using rules to identify options, and organizing information through mathematical correlations are all examples of an idea 'of itself' that could be performed in the human mind or by a human using a pen and paper.” Ans. 4; *see CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371–72 (Fed. Cir. 2011) (Finding method steps that can be performed in the human mind or by a human using a pen and paper are patent ineligible mental processes.); *see also Bancorp Servs., LLC v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“[T]he fact that the required calculations could be performed more efficiently via a computer does not

⁴ Appellant contends that, per the *November 2016 Memorandum*, the Examiner should not have relied on non-precedential decisions such as *SmartGene* and *Cyberfone*. Reply Br. 5. We note, however, that avoidance of citations to non-precedential decisions is only suggested, and not required, and *SmartGene* and other non-precedential decisions are cited with approval in MPEP 2106 Rev. 08.2017, January 2018. All MPEP citations herein are to MPEP Rev. 08.2017, January 2018.

materially alter the patent eligibility of the claimed subject matter.”).⁵ Although the recited apparatus, methods, and systems *use* computer technology to match words from the doctor-patient encounter to medical codes, and to match the medical codes to insurance codes and then use the insurance codes to determine reimbursements, this could be and was done by a coder. *See* Spec. ¶ 6. As the Manual of Patent Examining Procedure indicates, analyzing information by the steps people go through in their minds, without more, is essentially a mental process within the abstract-idea category. MPEP 2106.04(a)(2)(III) (citing *SmartGene*, 555 F. App’x at 955).

Appellant disagrees and contends that the pending claims are not impermissibly directed to an abstract idea. Quoting the Court in *Alice*, Appellant notes, “At some level, ‘all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.’ Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept.” App. Br. 9 (quoting *Alice*, 134 S. Ct. at 2354).

Appellant acknowledges that “[a]lthough the Answer appears to follow the guidelines set forth in the *May 2016 Memorandum*, the Answer clearly relies on identifying disparate abstract concepts allegedly recited in the claims and grouping them together to conclude that the claimed invention as a *whole* is directed to an abstract idea.” Reply Br. 4. Appellant contends that “it is the **claiming of a monopoly upon such a fundamental truth, rather than a novel application of one or more such truths** which runs afoul of the first

⁵ Only claim 17, which depends from claim 13, recites that “the method is in real or near real time.” App. Br. 18 (Claims App’x). Thus, we interpret the remaining claims as not requiring real time or near real time operation.

part of the two-part analysis applied in *Alice Corp. Pty.*” App. Br. 9. We disagree and conclude that the Examiner identifies an abstract idea, to which the claims are directed, and that, as discussed below with respect to preemption, the claims need not “monopolize” an abstract idea in order to be patent ineligible.

Appellant also contends that the pending claims “present functional and palpable applications in the field of healthcare billing, but the claims also recite specific ways for identifying and ranking medical codes by using a specific set of elements recited by the claims.” *Id.* (citing *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859, 868 (Fed. Cir. 2010)). Nevertheless, the Examiner notes that, in *Research Corporation Technologies*, the Federal Circuit “emphasized specific applications or improvements to technologies. Appellant then states the claims present functional and palpable applications in the field of healthcare billing but then does not elaborate on what the functional and palpable applications are or how there is an improvement to the technology.” Ans. 8. Thus, the Examiner finds that “the specific steps and the specific ways Appellant points to are all directed *to the abstract idea* and not an application or improvement *to the technology*. The *use* of technology to *facilitate* the execution of the abstract idea as Appellant discusses (interaction of devices) does not necessarily equate to a specific application or improvement to the technology.” Ans. 8 (emphases added). We agree with the Examiner.

We are not persuaded that the Examiner erred in identifying the abstract idea to which the pending claims are directed.

B. Alice Step Two

1. Independent claims 1, 7, 13, and 18

The Examiner further finds that the additional elements of the independent claims, individually or as a whole, do not amount to significantly more than the abstract idea. Ans. 4–6. In particular, the Examiner finds that the elements include no more than generic computer components performing generic computer functions. *Id.* at 4–5; *see* Spec. ¶¶ 26 (“conventional computer,” and “conventional basic input systems”), 27 (“The selection may be made using a conventional input device”), 30 (“[T]he recognized words may be stripped into a coding file or tagged in some conventional manner.”), 42 (“The system bus 506, which may follow any conventional protocol . . . , couples the various system components and allows data and control signals to be exchanged between the components.”), 44 (“A general purpose processor may be a microprocessor, but in the alternative, the processor may be any conventional processor, controller, microcontroller, or state machine.”). The Specification also explains, as noted above, that it is known that a “coder” may review a doctor’s notes and assign appropriate medical and insurance codes. Spec. ¶¶ 6, 7. Moreover, the Examiner finds that the additional steps or operations recited in the independent claims, i.e., the “receiving,” “replacing,” and “displaying” steps/operations, “do not amount to significantly more than the abstract idea as these limitations are considered insignificant extra[-]solution activity as they are data gathering and data outputting features.” Ans. 5–6; *see id.* at 9; *see also* MPEP 2106.05(g) (“The term ‘extra-solution activity’ can be understood as activities incidental to the primary process or product that are merely a nominal or tangential addition to the claim.”).

In addition, the Examiner finds that the use of “a speech to text engine,” as recited in independent claims 7, 13, and 18, “does not add significantly more to the recited abstract idea as it is part of the data gathering step and also the use of audio transcription was well-understood, routine and conventional in the field of health care computer arts.” Ans. 6. As the Specification explains,

the interface 104 may be one or a combination of a number of conventional basic input systems such as, for example, a keyboard and display system, a light pen, touch screen, microphone, or the like. *Interface 104 also may have a display, a speaker, a printer, or the like connected to allow information to be provided back to the user, whether a doctor, transcriptionist, or the like as is generally known in the art.* The workstation 102 (which is described in more detail below) also includes a processor 108. Processor 108 may interact with a remote server 110 for certain applications and functionality. For example, one remote server 110 may include a speech to text engine 110_{stt} to convert audio data to textual data.

Spec. ¶ 26 (emphasis added); *see id.* ¶¶ 23 (“[T]he technology of the present application will be described *generically* and may be loaded onto a particular user’s workstation (fat or thick client) or hosted by a server that is accessed by the workstation (thin client).” (emphasis added)), 44 (describing “general purpose processors”). The Examiner finds that “the use of audio transcription was well-understood, routine and conventional in the field of health care computer arts.” Ans. 6.

Appellant disagrees. App. Br. 12–13; Reply Br. 8. First, Appellant contends that “the claims recite a variety of elements which are not well-understood, routine, and conventional activities.” App. Br. 13. In particular, Appellant contends that, if they were “well-understood, routine, and conventional activities,” “the Examiner would have been able to easily

provide support for such accusations.” *Id.* Further, Appellant contends that the systems and methods recited in independent claims “go beyond the mere high level concepts and combine the steps in such a way to create a particular machine satisfying the second part of the [*Alice/Mayo*] framework put forth by the Supreme Court.” *Id.*; *see* Reply Br. 8.

Nevertheless, as noted above, the Specification makes clear that, individually, the additional hardware elements and steps and operations are “well-understood, routine, and conventional activities.” *See* Spec. ¶¶ 26, 27, 30, 42, 44. Moreover, the Examiner finds that these hardware elements and steps and operations add no more in combination than they add individually. Ans. 9; *see* Non Final Act. 4–5. Appellant contends that

at least each of the independent claims recites a specific ordered combination of features/steps/elements that results in an improved process, system, or apparatus for billing by a healthcare provider. As an example, in some embodiments, the claimed invention provides a novel way to generate a patient health record with optimized insurance coding to maximize revenue for a healthcare provider.

Reply Br. 8. This contention, however, describes improvements *to the abstract idea* and not an improvement *to the computer technology*. The Examiner is not persuaded by Appellant’s contentions to the contrary.

Ans. 9; *see* App. Br. 13. We agree with the Examiner.

2. Dependent claims 2, 6, 10, 15, 17, and 19

Claims 2, 6, 10, 15, 17, and 19 depend directly from one of independent claims 1, 7, 13, or 18. Ans. 6–7. The Examiner finds that the additional elements of these claims do not add significantly more to the recited abstract idea, individually or as the ordered combination. In particular, the Examiner finds the use of known interface devices (*see* Spec.

¶ 26 (“a number of conventional basic input systems such as, for example, a keyboard and display system, a light pen, touch screen, microphone, or the like”)) in claim 10 is well-understood, routine, and conventional in the computer arts. Ans. 6. The additional elements recited in the other dependent claims, for example, the “Current Procedural Terminology database, an International Statistical Classification of Diseases and Related Health Problems database” (*see id.* ¶ 6) recited in claim 2, also are known generally and, whether considered alone or in combination with the elements of the base claim from which they depend, do not amount to significantly more than the abstract idea. Ans. 6–7.

We are not persuaded that the Examiner erred in finding that the additional elements, considered alone or as a combination, do not amount to significantly more than the identified abstract idea.

C. Lack of Complete Preemption

Appellant further contends that the pending claims do not completely preempt the identified abstract idea. App. Br. 11–12. In particular, Appellant contends that “[m]any different ways of identifying medical codes and ranking the identified medical codes exist that are not implicated by the current claims.” *Id.* Thus, Appellant contends that the pending claims are directed to patentable subject matter.

“[W]hile a preemptive claim may be ineligible, the absence of complete preemption does not demonstrate that a claim is eligible.” Comm’r for Patents Memorandum, “Formulating a Subject Matter Eligibility Rejection and Evaluating the Applicant’s Response to a Subject Matter Eligibility Rejection,” 6–7 (May 4, 2016). “[E]mploying well-known computer functions to execute an abstract idea, even when limiting the use

of the idea to one particular environment, does not add significantly more, similar to how limiting the computer implemented abstract idea in [*Parker v. Flook*, 437 U.S. 584 (1978)] to petrochemical and oil-refining industries was insufficient.” *Id.* at 4–5. In response to Appellant’s contention that the pending claims do not completely preempt the abstract idea, the Examiner notes that:

Regarding preemption the court said in [*Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371 (Fed. Cir. 2015)], while it may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility. Where a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as the pending claims for appeal are, preemption concerns are fully addressed and made moot.

Ans. 8; *see* MPEP 2106.07(b). We recognize that the U.S. 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.” *See Alice*, 134 S. Ct. at 2354. However, characterizing preemption 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*, 788 F.3d at 1379 (citing *Alice Corp.*, 134 S. Ct. at 2354). As the Examiner correctly notes, “although preemption is one of the considerations, it is not alone dispositive of what is an abstract idea.” Ans. 4.

A potential lack of complete preemption is not dispositive here. Thus, having considered preemption in the context of the two-step, *Alice/Mayo*

analysis, the Examiner concludes that the pending claims neither are directed to an improvement to the functioning of a computer or to any other technology or technical field, nor do the additional elements in combination or individually amount to patent eligible subject matter. *Id.* at 4, 8. We agree.

We are not persuaded the Examiner erred in determining that the claims are directed to an abstract idea and do not recite limitations amounting to “significantly more” than the identified abstract idea. Consequently, we are not persuaded that the Examiner erred in rejecting claims 1, 2, 6, 7, 10, 13, 15, and 17–19, and we sustain the rejections thereof.

V. DECISION

For the above reasons, we affirm the Examiner’s decision rejecting claims 1, 2, 6, 7, 10, 13, 15, and 17–19.

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