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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL KOS and RYAN LEE WEXLER ¹

Appeal 2017-007933
Application 13/313,424
Technology Center 3600

Before CAROLYN D. THOMAS, MICHAEL J. STRAUSS, and
JOSEPH P. LENTIVECH, *Administrative Patent Judges*.

THOMAS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's Final Rejection of claims 1, 2, 4, 10–12, 14, and 20–27, all the pending claims in the present application. Claims 3, 5–9, 13, and 15–19 are canceled. *See* Claims Appendix. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

The present invention relates generally to automatically generating medical billing codes. *See* Abstract.

¹Appellants name Medical Billing Systems LLC as the real party in interest (App. Br. 3).

Claim 1 is illustrative:

1. A method for transforming a DICOM RT image file into radiation therapy billing codes, the method comprising:
 - receiving a DICOM RT image file at a computing device, the DICOM RT image file including at least one patient image and having radiation treatment planning data embedded therein, the radiation treatment planning data identifying at least a patient identifier, a quantity of radiation sites to be treated, a quantity of radiation beams to be applied, a type of radiation beams to be applied, a quantity of beam energy to be applied, a quantity of blocking sequences to be applied, and an immobilization device to be employed;
 - executing instructions stored in memory of the computing device, wherein the execution of the instructions by a processor of the computing device:
 - reads the DICOM RT image file,
 - transforms the DICOM RT image file into a set of radiation treatment plan data objects, the set of radiation treatment plan data objects including at least one subset of radiation treatment plan data objects, the subset of radiation treatment plan data objects including at least a first data object corresponding to the patient identifier, a second data object corresponding to the quantity of radiation sites, a third data object corresponding to the quantity of radiation beams, a fourth data object corresponding to the type of radiation beams, a fifth data object corresponding to the a quantity of beam energy, a sixth data object corresponding to the quantity of blocking sequences, and a seventh data object corresponding to the immobilization device,
 - matches the radiation treatment plan data objects with a corresponding patient based on the patient identifier data object,
 - identifies a plurality of billable radiation treatment plan data objects from among the set of radiation treatment plan data objects, the billable radiation treatment plan data objects including at least the first, second, third, fourth, fifth, sixth, and seventh data objects of the subset of radiation treatment plan data objects,

extracts the identified billable radiation treatment plan data objects from the set of radiation treatment plan data objects,
determines a treatment complexity level associated with each extracted billable radiation treatment plan data object,
scores the extracted billable radiation treatment plan data objects based on the determined complexity levels of the extracted billable radiation treatment plan data objects, and;
generates one or more radiation therapy billing codes based on the extracted and scored billable radiation treatment plan data objects; and
displaying the one or more radiation therapy billing codes to a user of the computing device through a display interface communicatively coupled to the computing device.

Appellants appeal the following rejections:

R1. Claims 1, 2, 4, 10–12, 14, and 20–27 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to patent-ineligible subject matter (Final Act. 2–3); and

R2. Claims 1, 2, 4, 10–12, 14, and 20–27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kresl (US 2011/0106563 A1, May 5, 2011) and Rosenfeld (US 2005/0159987 A1, July 21, 2005).

We review the appealed rejections for error based upon the issues identified by Appellants, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential).

ANALYSIS

Rejection under § 101

Issue: Did the Examiner err in finding that the claims are directed to patent-ineligible subject matter?

Alice Corp. Pty. v. CLS Bank Int'l, 134 S. Ct. 2347 (2014), identifies a two-step framework for determining whether claimed subject matter is judicially excepted from patent eligibility under § 101. According to *Alice* step one, “[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Alice*, 134 S. Ct. at 2355. “If the claims are not directed to an abstract idea [or other patent-ineligible concept], the inquiry ends. If the claims are ‘directed to’ an abstract idea, then the inquiry proceeds to the second step of the *Alice* framework.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016).

In analyzing whether a claim is directed to an abstract idea, we look to other decisions where similar concepts were previously found abstract by the courts. *See Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016). In this regard, with respect to independent method claim 1, and similarly, system claim 11 and computer-readable storage medium claim 21, the Examiner determines that the claims are directed to the abstract ideas of “using categories to organize, store and transmit information (*Cyberfone*), collecting and comparing known information (*Classen*) [and] comparing new and stored information and using rules to identify options (*SmartGene*)” (Final Act. 2; *see also* Ans. 2).

We find that the Examiner’s cogent analysis relying on judicial examples, shows the Examiner provided an adequate basis for determining that the claims are directed to an abstract idea.

Here, Appellants mainly challenge the Examiner’s determinations on the ground that like the claims in *Enfish*, the claims “are not ‘directed to’ an abstract idea because they focus on . . . technologies that make DICOM RT image themselves . . . more useful by adding a function and purpose that did not previously exist” (App. Br. 18). Specifically, Appellants contend that “the data embedded in DICOM RT files served no functional benefit from a billing perspective . . . [now it] imparts additional usefulness . . . [by] transforming the embedded data into functional billing codes” (*id.*, citing Appellants’ Spec. ¶ 64).

As such, we look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed 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, 1336 (Fed. Cir. 2016). Here, the Examiner determines, and we agree, “the plain focus of the claims is not an improvement to computer functionality itself, but instead on other tasks for which a computer is used in its ordinary capacity” (Ans. 2), such as “address[ing] a problem (‘for transforming a DICOM RT image file into radiation therapy billing codes’) utilizing computer technology” (*id.* at 3).

In contrast, the *Enfish* court noted that “[s]oftware can make non-abstract improvements to computer technology just as hardware improvements can [.]” *Enfish*, 822 F.3d at 1335. The court put the question as being “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.” *Id.* at 1335–36. In *Enfish*, the court found that the “plain focus of the claims” there was on “an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity.” *Id.* at 1336.

The present case is different from *Enfish* because the focus of the claims here is not on an improvement in computers as tools or upon an innovative way to use computers or other devices, but is focused on an independently abstract idea that uses generic and routine equipment as tools; that abstract idea being collecting/extracting data and transforming the data into an economic form, i.e., billable codes. That is, here the arguably innovative technique of the appealed claims is inextricably part of the abstract idea of manipulating data itself to achieve an economic benefit.

Furthermore, we note that while Appellants’ claims may yield a beneficial result in transforming data from one form to another, a proper section 101 analysis is not driven solely by usefulness. Instead, the *Bilski* court has enunciated the “machine-or-transformation” test (which is generally addressed under step two of *Alice*). However, we shall point out now that the *Bilski* court explained that “the use of a specific machine or transformation of an article must impose meaningful limits on the claim’s scope to impart patent-eligibility” and “the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity.” *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (citation and internal quotation marks omitted). Here, we do *not* have a transformation of physical subject matter but merely an abstract expression

that is created from converting data from one form to another, which does not require any tangible output or result. These steps describe nothing more than the manipulation of data constructs, the paradigmatic “abstract idea.” *See In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994). When considered as a whole, we conclude that claim 1 involves no more than the manipulation of abstract ideas. *See id.*

Specifically, the claimed sequence of steps in claim 1 merely cover employing a computing device to perform functions, such as receiving, reading, transforming, matching, identifying, extracting, determining, scoring, generating, and displaying (*see* claim 1). However, information collection and analysis, including when limited to particular content is within the realm of abstract ideas. *See, e.g., Elec. Power Grp. LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (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.”); *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 613–614 (Fed. Cir. 2016) (finding the claimed method of classifying and storing images in an organized manner was a well-established basic concept analogous to methods of organizing human activity) (server that receives data, extracts classification information from the received data, and stores the digital images insufficient to add an inventive concept). As such, the abstract idea here is not meaningfully different from the ideas found to be abstract in other cases.

Although Appellants cite various non-controlling cases (*see* App. Br. 16–18) in support of their aforementioned contention, we find that the Examiner’s analysis is consistent with controlling precedent. In view of the

above, we agree with the Examiner that the claims are directed to an abstract idea.

We now turn to the second step of the *Alice* framework: “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*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)).

The Examiner determines that the “additional elements amount to no more than generic computer components . . . performing routine and conventional activities that are well-understood” (Final Act. 2; *see also* Ans. 4–5). Specifically, Appellants’ Specification indicates that “a General Purpose Computer” and various other generic components are being used to implement the claimed invention (*see, e.g.*, Appellants’ Spec. ¶ 105). The Examiner directs our attention to various other portions of Appellants’ Specification (*see* Final Act. 3). Such an analysis is a factual determination. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018) (“Whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.”).

We find the Examiner’s noting of generic nature of the component parts recited in the claims provides sufficient evidence of a generic computer system used to implement the abstraction. *See Credit Acceptance Corp. v. Westlake Services*, 859 F.3d 1044, 1057 (Fed. Cir. 2017) (“Significantly, the claims do not provide details as to any non-conventional software for enhancing the financing process.”). *See Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017) (explaining

that “[o]ur law demands more” than claim language that “provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it”).

Appellants challenge said determinations on the ground Appellants’ “inventive concept rests on taking advantage of specific data embedded in nonhuman-readable format within DICOM RT images . . . [by] harness[ing] that technical feature of DICOM RT images and us[ing] software-based technologies . . . like the patent-eligible technology in *DDR Holdings*” (App. Br. 25).

However, Appellants do not direct our attention to anything in the Specification that shows any specialized computer hardware or other “inventive” computer components are required. Nor has Appellants persuasively argued why the functions performed in the claims – generating billing codes based on the extracted data – are not using routine, conventional, and well-known functions of a generic computer. *In re TLI Communications LLC Patent Litigation*, 823 F.3d at 614 (server that receives data, extracts classification information from the received data, and stores the digital images insufficient to add an inventive concept); *Lending Tree*, 656 Fed. Appx. at 996 (“automating conventional activities using generic technology does not amount to an inventive concept”). Rather, as pointed out by the Examiner, the Specification describes generic computer components performing generic computer functions that are routine and conventional, and are performing the normal, basic functions of a computer. *See, e.g.*, Spec. ¶¶ 65–67, 105. *See also Electric Power*, 830 F.3d at 1355 (“Nothing in the claims, understood in light of the specification, requires anything other than off-the-shelf, conventional computer, network, and

display technology for gathering, sending, and presenting the desired information.”). “In order for the addition of a machine to impose a meaningful limit on the scope of a claim, it must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for performing calculations.” *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010); *see also Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada*, 687 F.3d 1266, 1277–78 (Fed. Cir. 2012).

Furthermore, we find Appellants’ method performed by a computing device/processor (claim 1) does not provide a solution “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014). Because we find all claims on appeal merely use a generic computer or processor as a tool which is used in the way a computer normally functions, we conclude that the claims fail to impart any discernible improvement upon the computer or processor; nor do Appellants’ claims solve “a challenge particular to the Internet” as considered by the court in *DDR*, 773 F.3d at 1256–57.

Accordingly, Appellants have not adequately explained how the claims are performed such that they are not routine, conventional functions of a generic computer. The claims at issue do not require any nonconventional computer or display components, or even a “non-conventional and non-generic arrangement of known, conventional pieces,” but merely call for performance of the claimed data collection/extraction, analysis, and display “on a set of generic computer components.” *Bascom*

Global Internet Services, Inc. v. AT&T Mobility LLC, 827 F.3d 1341, 1349–52 (Fed. Cir. 2016). Thus, considering the features of the claims, individually and as an ordered combination, we find there are no additional elements that transform the nature of the claim into a patent-eligible application. *Alice*, 134 S. Ct. at 2355.

Because Appellants’ independent claims 1, 11, and 21² are directed to a patent-ineligible abstract concept under the first prong of *Alice* and do not recite something “significantly more” under the second prong of the *Alice* analysis, we sustain the Examiner’s rejection of these claims as well as respective dependent claims under 35 U.S.C. § 101 as being directed to non-statutory subject matter in light of *Alice* and its’ progeny.

For the foregoing reasons, Appellants’ contentions are unpersuasive as to error in the rejection under 35 U.S.C. § 101.

Rejection under § 103(a)

Claims 1, 2, 4, 10–12, 14, and 20–27

In the Final Action, the Examiner makes numerous findings and concludes that “it would have been obvious to one of ordinary skill in the art to have modified the teachings of Kresl with . . . Rosenfeld with the motivation to provide mechanism for transmitting medical billing data with the associated treatment plan” (Final Act. 7).

In the Appeal Brief, Appellants make numerous arguments, such as: “the Examiner made no mention of any problems . . . any proposed benefits . . . or anything else . . . [instead has] engaged in what appears to have been

² *Alice* also confirmed that if a patent’s systems claims are no different in substance from its method claims, they will rise and fall together. 134 S. Ct. at 2360. The same was true of the *Alice* patent’s media claims. *Id.*

impermissible hindsight rather than having articulated a reason for the proposed combination” (App. Br. 9); *Rosenfeld*’s “cursory reference to ‘provid[ing] appropriate output to the billing module 662 to generate an invoice line item’ cannot reasonably be interpreted as ‘extract[ing] the identified billable radiation treatment plan data objects from the set of radiation treatment plan data objects” (*id.* at 12); “the scores at issue in *Rosenfeld* are determined and input by human users, not determined by a processor executing instructions” (*id.* at 13); “any discernible analysis of treatment complexity level occurring in *Rosenfeld* is performed and inputted by a human user and has no connection with embedded data that has been automatically extracted from a DICOM RT file” (*id.* at 11); and “[t]he teachings cited [in *Kresl*] by the Examiner do not appear to have any nexus to Appellants’ claim language. The teachings at paragraph [0036] do not, for instance, make any explicit or implicit reference to modifying a previously generated radiation therapy billing code at all” (*id.* at 14).

Significantly, in reviewing the record, we note that the Examiner’s Answer offers *no* rebuttal to any of Appellants’ arguments under § 103(a). This circumstance lead us to determine that because the arguments under review are unrebutted by the Examiner, they are therefore persuasive. It follows that we are constrained by the record to *not* sustain the rejection under § 103(a).

DECISION

We affirm the Examiner’s § 101 rejection R1.

We reverse the Examiner’s § 103(a) rejection R2.

Because at least one rejection encompassing all claims on appeal is

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affirmed, the decision of the Examiner 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)(iv).

AFFIRMED