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EXAMINER
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MARIANA NIKOLOVA-SIMONS, JOHAN MUSKENS,  
JOSEPH ERNEST ROCK, and HANS-ALOYS WISCHMANN

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Appeal 2017-000523  
Application 13/983,643<sup>1</sup>  
Technology Center 3600

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Before NINA L. MEDLOCK, BRUCE T. WIEDER, and  
KENNETH G. SCHOPFER, *Administrative Patent Judges*.

WIEDER, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1, 3, 4, 6–8, 11, and 13–21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

Appellants' claimed invention relates to a system and "method of patient discharge planning." (Spec. 1.)

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<sup>1</sup> According to Appellants, the real party in interest is Koninklijke Philips N.V. (Appeal Br. 2.)

Claims 1, 11, and 20 are the independent claims on appeal. Claim 1 is illustrative. It recites:

1. A method of patient discharge planning, comprising:
  - evaluating, by a processor, a patient record including patient data parameters of a patient;
  - determining, by the processor, a set of discharge criteria as a function of the patient data parameters;
  - predicting, by the processor, a change in the patient record for all possible treatment options;
  - determining, by the processor, a discharge score as a function of the discharge criteria;
  - generating, by the processor, a discharge recommendation based on the discharge score; and
  - displaying, by a display the discharge recommendation to a user,wherein the discharge recommendation includes one of (i) a first recommendation to discharge the patient if the discharge score exceeds a predetermined threshold and (ii) a recommendation not to discharge the patient if the discharge score is below the predetermined threshold.

## REJECTIONS

Claims 1, 3, 4, 6–8, 11, and 13–21 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1, 3, 4, 6–8, 11, and 13–21 are rejected under 35 U.S.C. § 103(a) as unpatentable in view of Haines (US 2002/0188182 A1, pub. Dec. 12, 2002) and Alden (US 2011/0071851 A1, pub. Mar. 24, 2011).

## ANALYSIS

### The § 101 rejection

“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement

thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. Section 101, however, “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

*Alice* applies a two-step framework, earlier set out in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (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.

Under the two-step framework, it must first be determined if “the claims at issue are directed to a patent-ineligible concept.” *Id.* If the claims are determined to be directed to a patent-ineligible concept, then the second step of the framework is applied to determine if “the elements of the claim . . . contain[] an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Id.* at 2357 (citing *Mayo*, 566 U.S. at 72–73, 79).

With regard to step one of the *Alice* framework, the Examiner determines that “[c]laim 1 is directed to the abstract idea of comparing new and stored information and using rules to identify options.” (Final Action 6.)

Appellants disagree and argue that “[c]laim 1 requires significantly more.” (Appeal Br. 4.) In particular, Appellants argue that “claim 1 requires transforming discharge criteria into a discharge score, constructing a prediction for all possible treatment options, etc.” and that “these acts . . .

are not well-understood, routine, and conventional activities known to the industry.” (*Id.*)

Under step one of the *Alice* framework, we “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)).

The Specification provides evidence as to what the claimed invention is directed. In this case, the Specification discloses that the invention relates to a system and “method of patient discharge planning.” (Spec. 1.) Claim 1 recites “[a] method of patient discharge planning, comprising: evaluating . . . a patient record,” “determining . . . a set of discharge criteria,” “predicting . . . a change in the patient record,” “determining . . . a discharge score,” “generating . . . a discharge recommendation,” “and displaying . . . the discharge recommendation.”

“[W]e have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.” *Elec. Power Grp.*, 830 F.3d at 1353. “In a similar vein, we have treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Id.* at 1354. “And we have recognized that merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis.” *Id.* “Here, the claims are clearly focused on the combination of those abstract-idea processes.” *Id.*

Although we and the Examiner describe, at different levels of abstraction, to what the claims are directed, it is recognized that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). That need not and, in this case does not, “impact the patentability analysis.” *See id.* at 1241. In short, we agree with the Examiner that claim 1 is “directed to the abstract idea of comparing new and stored information and using rules to identify options” and displaying the results. (*See* Final Action 6.)

We now look to step two of the *Alice* framework. Step two of the *Alice* framework has been described “as 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 (citing *Mayo*, 566 U.S. at 72–73).

The Examiner finds that claim 1

does not include additional elements that are sufficient to amount to significantly more than the judicial exception because the computer as recited is a generic computer component that performs functions (*i.e.*, displaying.). These are generic computer functions (*i.e.*, receiving data, making data determinations, populating data, and providing notifications) that are well-understood, routine, and conventional activities previously known to the industry.

(Final Action 6.)

We agree. “The claims at issue do not require any nonconventional computer, network, or display components, or even a ‘non-conventional and non-generic arrangement of known, conventional pieces,’ but merely call for performance of the claimed information collection, analysis, and display

functions” on a generic processor and display. *Elec. Power Grp.*, 830 F.3d at 1355; *see also* Spec. 4 (disclosing use of a generic processor for performing the claimed method).

Nonetheless, and as noted above, Appellants also argue that the claimed steps “are not well-understood, routine, and conventional activities known to the industry.” (Appeal Br. 4.) But Appellants do not explain *why*, in this instance, the steps of evaluating data, determining results, and displaying results are not well-understood, routine, and conventional activities. “[T]hese claims in substance [are] directed to nothing more than the performance of an abstract business practice . . . using a conventional computer. Such claims are not patent-eligible.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014).

In view of the above, we are not persuaded that the Examiner erred in rejecting claim 1 under § 101. Claims 3, 4, 6–8, 11, and 13–21 are not separately argued. Therefore, they fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

*The § 103(a) rejection*

In rejecting claim 1, the Examiner finds that paragraph 41 of Haines discloses the step of “predicting, by a processor, a change in the patient record for all possible treatment options.” (Final Action 7.) With regard to the term “for all possible treatment options,” the Examiner

remind[s Appellants] that that functional recitation(s) using the word “for” or other functional language (e.g. “capable of”) have been considered but given less patentable weight because they fail to add any steps and are thereby regarded as intended use language. A recitation of the intended use of the claimed invention must result in additional steps. *See* Bristol-Myers

Squibb Co. v. Ben Venue Laboratories, Inc., 246 F.3d 1368, 1375-76, 58 USPQ2d 1508, 1513 (Fed. Cir. 2001).

(Answer 6.)

Appellants disagree and argue that, unlike *Bristol-Myers*, the “for” language in claim 1 is part of an active step of claim 1; it is a prepositional phrase that further limits the “predicting” step. It results in a manipulative difference in the steps of the claim at least because it defines the scope of the prediction, which must be for all possible treatment options. This claim limitation is not a purpose or an intended result of the active steps of the claim.

(Reply Br. 2.)

In *Bristol-Myers*, the question was whether the language in a claim preamble, i.e., “[a] method for reducing hematologic toxicity in a cancer patient undergoing [t]axol treatment comprising . . . ,” limited the scope of the claim. *Bristol-Myers*, 246 F.3d at 1375. The court agreed with the district court that the preamble term “for reducing hematologic toxicity” was “non-limiting, and merely express[ed] a purpose.” *Id.* The court also agreed with the district court that the preamble term in another claim, “[a] method for treating a cancer patient to effect regression of a taxol-sensitive tumor, said method being associated with reduced hematologic toxicity,” was “only a statement of purpose and intended result. The expression does not result in a manipulative difference in the steps of the claim.” *Id.* at 1375–76.

Unlike the claims in *Bristol-Myers*, here, the step of “predicting, by the processor, a change in the patient record for all possible treatment options,” results in a difference in the step. That is, the predicting step could produce different results if predicting a change in the patient record for only

a first treatment option versus predicting a change in the patient record for, e.g., first, second, and third treatment options.

Paragraph 41 of Haines, relied on by the Examiner as disclosing this step, recites in relevant part:

The disease management protocol module provides a course of treatment and care that suggests specific medical management devices to be used, and the frequency of such use. . . . The course of treatment and care also suggests a nominal schedule enumerating a specific number of visits necessary to complete the prescribed treatment for the patient within the specified care plan.

(Haines ¶ 41.) Haines also discloses that “[t]he effectiveness of the care plan can then be assessed in order to improve the applied modules accordingly and the care plan adjusted to maximize medical recovery.” (*Id.* ¶ 49.)

However, the Examiner does not sufficiently explain how the relied on portions of Haines disclose predicting “for all possible treatment options,” or why, in view of the disclosure, it would have been obvious to predict “for all possible treatment options.” Therefore, we are persuaded that the Examiner erred in rejecting claim 1 under § 103(a).

Independent claims 11 and 20 contain similar language, and for similar reasons we are persuaded that the Examiner erred in rejecting claims 11 and 20, and dependent claims 3, 4, 6–8, 13–19, and 21.

## DECISION

The Examiner’s rejection of claims 1, 3, 4, 6–8, 11, and 13–21 under 35 U.S.C. § 101 is affirmed.

Appeal 2017-000523  
Application 13/983,643

The Examiner's rejection of claims 1, 3, 4, 6–8, 11, and 13–21 under 35 U.S.C. § 103(a) is reversed.

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