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EXAMINER

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FENG XUE, RICHARD L. FROWEIN, PIERO PATRONE
BONISSONE, SUSAN M. QUINION, MELISSA JARONESKI,
ANGELA NEFF PATTERSON, and JAMES KENNETH ARAGONES

Appeal 2017-008728
Application 13/011,504¹
Technology Center 3600

Before ANTON W. FETTING, MATTHEW S. MEYERS, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

SILVERMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–3, 5, 6, 8–17, and 19–23. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ The Appellants identify General Electric Company as the real party in interest. Appeal Br. 3.

ILLUSTRATIVE CLAIM

1. A method for identifying and addressing operational deficiencies at a hospital, the method comprising:

accessing a plurality of hospital records generated in response to a plurality of inputs to a hospital information system implemented in a computer, wherein at least part of said hospital records are generated real-time and further wherein said at least part of said hospital records, generated real-time, comprises data based on at least one of: card key readers; and Radio Frequency Identification (RFID) tags;

computationally transforming the hospital records into one or more databases present in the hospital information system;

computationally extracting and calculating a plurality of features and corresponding plurality of values from the one or more databases, wherein the calculated features and the corresponding values comprise statistical measures that summarize aspects of the hospital information system at different times and wherein the features characterize a plurality of operations of the hospital;

statistically deriving a performance indicator from the calculated features and the corresponding values that provides a measure of operational performance related to the plurality of operations of the hospital, wherein the performance indicator relates to at least one derived value that represents an aspect of the operational performance related to the plurality of operations of the hospital at different times;

forming a multivariate time series from the performance indicator, wherein the multivariate time series characterizes a state of one or more of the plurality of operations of the hospital states;

analytically identifying one or more root causes contributing to the performance indicator, wherein the one or more root causes relate to at least one of the plurality of features that contributes to the at least one derived value of the performance indicator;

generating one or more recommendations related to one or more of the plurality of operations of the hospital based on the one or more root causes; and

implementing at least one of the one or more recommendations by an operator or a decision maker.

CITED REFERENCES

The Examiner relies upon the following references:

Pollack	US 5,809,477	Sept. 15, 1998
Scherpbier et al. (hereinafter “Scherpbier”)	US 2007/0129983 A1	June 7, 2007
Weidenhaupt et al. (hereinafter “Weidenhaupt”)	US 2008/0235057 A1	Sept. 25, 2008

REJECTIONS

I. Claims 1–3, 5, 6, 8–17, and 19–23 are rejected under 35 U.S.C. § 101 as ineligible subject matter.

II. Claims 1–3, 5, 6, 8–17, and 19–23 are rejected under 35 U.S.C. § 103(a) as unpatentable over Pollack, Weidenhaupt, and Scherpbier.²

FINDINGS OF FACT

The findings of fact relied upon, which are supported by a preponderance of the evidence, appear in the following Analysis.

ANALYSIS

Subject-Matter Eligibility

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.”

² We regard as inadvertent the Examiner’s inclusion (Final Action 5) of claim 7 in the description of the obviousness rejection. *See* Final Action 13; Appeal Br. 10, 17.

35 U.S.C. § 101. Yet, subject matter belonging to any of the statutory categories may, nevertheless, be ineligible for patenting. The Supreme Court has interpreted § 101 to exclude laws of nature, natural phenomena, and abstract ideas, because they are regarded as the basic tools of scientific and technological work, such that including them within the domain of patent protection would risk inhibiting future innovation premised upon them. *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013).

Of course, “[a]t some level, ‘all inventions . . . embody, use, reflect, rest upon, or apply’” these basic tools of scientific and technological work. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014) (internal citation omitted). Accordingly, evaluating ineligible subject matter, under this judicial exclusion, involves a two-step framework for “distinguish[ing] between patents that claim the buildin[g] block[s] of human ingenuity and those that integrate the building blocks into something more, thereby transform[ing] them into a patent-eligible invention.” *Id.* (internal quotation marks and citation omitted). The first step determines whether the claim is directed to judicially excluded subject matter (such as a so-called “abstract idea”); the second step determines whether there are any “additional elements” recited in the claim that (either individually or as an “ordered combination”) amount to “significantly more” than the identified judicially excepted subject matter itself. *Id.* at 217–18.

The USPTO recently published revised guidance on the application of § 101, in accordance with judicial precedent. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 52 (Jan. 7, 2019) (“*2019 Revised Guidance*”). Under the *2019 Revised Guidance*, a claim is “directed

to” an abstract idea, only if the claim recites any of (1) mathematical concepts, (2) certain methods of organizing human activity, and (3) mental processes — without integrating such abstract idea into a “practical application,” i.e., without “apply[ing], rely[ing] on, or us[ing] the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” *Id.* at 53–55. A claim so “directed to” an abstract idea constitutes ineligible subject matter, unless it recites an additional element (or combination of elements) amounting to significantly more than the abstract idea. *Id.* at 56.

With regard to the first step of the *Alice* framework, the Examiner states that the claims are directed to the abstract idea of “comparing new and stored information and using rules to identify options” — an abstract idea identified by the Federal Circuit in *SmartGene, Inc. v. Advanced Biological Laboratories, SA*, 555 F. App’x 950, 955 (Fed. Cir. 2014) (non-precedential). Final Action 3. Viewed through the lens of the *2019 Revised Guidance*, 84 Fed. Reg. at 52, the Examiner’s analysis depicts the claimed subject matter as an ineligible “[m]ental process[].”

Under the second step of the *Alice* framework, the Examiner determines that the claims do not include any additional element(s) amounting to significantly more than the identified abstract idea. Final Action 3. Rather, the additional limitations constitute generic computer devices and functions. *Id.* at 3–4.

The Appellants argue claims 1–3, 5, 6, 8–17, and 19–23 as a group. *See* Appeal Br. 8–11. Claim 1 is selected for analysis herein. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Notwithstanding the Appellants' statement "that the claims are not directed to an abstract idea" (Appeal Br. 9), the Appellants do not dispute the propriety of the Examiner's determination that the claim are directed to the abstract idea of "comparing new and stored information and using rules to identify options" (Final Action 3). Instead, the Appellants specifically contend that the claims include "significantly more" than the identified abstract idea alone. *See* Appeal Br. 9–11. Specifically, the Appellants argue that claim 1 requires positional tracking of patients, resources, and personnel. *See id.* at 9 (arguing that particular claim limitations "are part of an overall system that relates to patient, resource, and personnel data tracked in real-time with positioning systems, such as card key readers, Radio Frequency Identification (RFID) tags, and so forth.") The Appellants contend that, on account of positioning-system functionality, the claimed subject matter "transforms" claim 1's recitation of "accessing hospital records," surpasses any "routine" operation, and effects an "improvement to [sic] technical field of data access and operational efficiency of hospitals." *Id.* at 9–11.

These arguments are unpersuasive, because claim 1 does not require the supposed positioning-system functionality. Even though the claim features upon which the Appellants purport to rely — claim 1's "at least part of said hospital records, generated real-time, comprises data based on at least one of: card key readers; and Radio Frequency Identification (RFID) tags" (*see id.* at 9–11) — might be used in a positioning system, claim 1 does not require such functionality. Indeed, even though the Specification refers to "data related to patient flow and utilization of facilities and/or equipment within a hospital" (Spec. ¶ 1), the Specification shows that "flow" may refer

to stages in a patient treatment, and not necessarily positional information. *See id.* ¶¶ 26 (referring to “event sequences (e.g., patient flows)”), 40 (referring to “the treatment and/or observation of the patient (i.e., patient care flow)”), 43 (same). Thus, the abstract idea identified by the Examiner is not integrated into a practical application, per the second prong of “Revised Step 2A” of the *2019 Revised Guidance*, 84 Fed. Reg. at 54–55. Nor do the Appellants show error, on the Examiner’s part, in applying the second step of the *Alice* framework (“Step 2B” of the *2019 Revised Guidance*, 84 Fed. Reg. at 56–57).

In view of the foregoing analysis, we sustain the rejection of claims 1–3, 5, 6, 8–17, and 19–23, under 35 U.S.C. § 101.

Obviousness

The Appellants argue that the obviousness rejection should be reversed, alleging that Scherpbier does not teach or suggest the following limitation of independent claim 1:

accessing a plurality of hospital records generated in response to a plurality of inputs to a hospital information system implemented in a computer, wherein at least part of said hospital records are generated real-time and further wherein said at least part of said hospital records, generated real-time, comprises data based on at least one of: card key readers; and Radio Frequency Identification (RFID) tags.

See Appeal Br. 12. According the Appellants:

It is clearly evident that Scherpbier employs its Radio Frequency Identification (RFID) tags only for tracking location of the patients and balancing the load between the waiting area and the treatment rooms. Scherpbier does not teach or suggest or disclose *generation of any hospital record* or accessing any hospital records generated in response to a plurality of inputs to a hospital information system implemented in a computer,

wherein at least part of said hospital records are generated real-time and further *wherein said at least part of said hospital records, generated real-time, comprises data based on at least one of card key readers; and Radio Frequency Identification (RFID) tags* as recited in one form or other in the previously presented versions of independent claims 1, 10 and 14.

Id. at 15. Thus, the Appellants take the position that Scherpbier's RFID-created data does not teach or suggest the claimed "hospital records," such that Scherpbier does not teach or suggest "accessing a plurality of hospital records," as recited in claim 1.

Yet, the Examiner does not even rely upon Scherpbier, alone, for the teaching of claim 1's "hospital records" and the "accessing" thereof. Rather, the Examiner relies upon the primary reference, Pollack, together with Scherpbier, for these features. *See* Final Action 5–6, 11–12, Answer 7–9. "[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references." *In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (citation omitted). Accordingly, the Appellants' argument does not persuade us of error in the rejection of independent claim 1 and, for like reasons, the rejection of independent claims 10 and 14.

Because the Appellants present no separate argument for any of the dependent claims, we sustain the rejection of claims 1–3, 5, 6, 8–17, and 19–23 under 35 U.S.C. § 103(a).

DECISION

We AFFIRM the Examiner's decision rejecting claims 1–3, 5, 6, 8–17, and 19–23 under 35 U.S.C. § 101.

We AFFIRM the Examiner's decision rejecting claims 1–3, 5, 6, 8–17, and 19–23 under 35 U.S.C. § 103(a).

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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