UNITED STATES PATENT AND TRADEMARK OFFICE

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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 GLENN FUNG, BALAJI KRISHNAPURAM,
FAISAL FAROOQ, SHIPENG YU, MARK OVERHANGE,
JOHN HALEY, JAN DEHAAN, and VIKRAM ANAND[1]

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Appeal 2017-011830
Application 14/039,125
Technology Center 3600

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Before CAROLYN D. THOMAS, JON M. JURGOVAN, and
KARA L. SZPONDOWSKI, *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, 4–8, 10, 11, and 14–22, all the
pending claims in the present application. Claims 2, 3, 9, 12, and 13 are
canceled (*see* Claims Appendix). We have jurisdiction over the appeal
under 35 U.S.C. § 6(b).

　　We REVERSE.

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[1] Appellants name Cerner Innovation, Inc. as the real party in interest
(App. Br. 3).

The present invention relates generally to "automatic medical documentation adaption for predicted or probable patient medical conditions" (*see* Spec. ¶ 2).

Claim 1 is illustrative:

1. A computerized method carried out by at least one server having at least one processor for adaptive medical data collection, the method comprising:

triggering a probabilistic analysis of electronic records in response to a first set of information input into an Electronic Medical Record (EMR) of a patient;

determining, with the at least one processor, a first potential condition for the patient based on the probabilistic analysis;

identifying, with the at least one processor, a second set of information indicated as relevant to the first potential condition of the patient;

generating, with the at least one processor, a first request for the second set of information by identifying an established collection of information associated with the first potential condition of the patient and providing the first request for the second set of information in a preformatted medical form established for the collection of the second set of information, wherein the preformatted medical form is populated using the established collection of information associated with the first potential condition of the patient, and wherein the preformatted medical form is automatically adapted based on the first set of information input into the EMR;

receiving at least a portion of the second set of information;

repeating the triggering of the probabilistic analysis;

re-performing, with the at least one processor, the probabilistic analysis using the second set of information to identify a second potential condition and a third set of information relevant to the second potential condition of the patient; and

generating, with the at least one processor, a
second request for the third set of information wherein the
preformatted medical form is automatically adapted based on
the second set of information received subsequent to the first
request.

Appellants appeal the following rejection:

Claims 1, 4–8, 10, 11, and 14–22 are rejected under 35 U.S.C. § 101
because the claimed invention is directed to patent-ineligible subject matter
(Final Act. 3–5).

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

An invention is patent-eligible if it claims a "new and useful process,
machine, manufacture, or composition of matter." 35 U.S.C. § 101.
However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include
implicit exceptions: "[l]aws of nature, natural phenomena, and abstract
ideas" are not patentable. *E.g.*, *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573
U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we
are guided by the Supreme Court's two-step framework, described in *Mayo*
and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus
Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with the framework,
we first determine what concept the claim is "directed to." *See Alice*, 573
U.S. at 219 ("On their face, the claims before us are drawn to the concept of

intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk."). For example, concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221(internal quotation marks omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (quoting *Mayo*, 566 U.S. at 77). "[M]erely require[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

The PTO recently published revised guidance on the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Memorandum"). Under that guidance, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings of abstract
>   ideas (i.e., mathematical concepts, certain methods of organizing

human interactions such as a fundamental economic practice, or

mental processes); and

(2) additional elements that integrate the judicial exception into a

practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that

exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that are

not "well-understood, routine, conventional" in the field (*see*

MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities

previously known to the industry, specified at a high level of

generality, to the judicial exception.

See Memorandum.

With respect to independent method claim 1, and similarly, system

claim 11 and computer readable medium claim 18, the Examiner determines

that the claims are at least directed to the abstract idea of "comparing new

(information identified) and stored information (medical records, first

probabilistic analysis) and using rules to identify options (requesting

additional information in a pre-formatted automatically adapted

prepopulated form)" (Final Act. 4; *see also* claim 1), which we conclude are

mental processes (i.e., *see* claim 1).

Similarly, in *SmartGene, Inc. v. Advanced Biological Laboratories,

SA*, the Federal Circuit concluded that claims reciting methods and systems

of selecting a therapeutic treatment regimen for a patient with a known

disease were directed to an abstract idea. *SmartGene, Inc. v. Advanced

Biological Labs., SA*, 555 F. App'x 950 (Fed. Cir. 2014) (nonprecedential).

The court concluded the claims at issue were abstract because the claims did "no more than call on a 'computing device,' with basic functionality for comparing stored and input data rules, to do what doctors do routinely" *SmartGene*, 555 F. App'x at 954. The court explained that "every [claimed] step is a familiar part of the conscious process that doctors can and do perform in their heads." *SmartGene*, 555 F. App'x at 955.

Thus, we agree with the Examiner that method claim 1 is at least directed to "mental processes" that can be performed in the human mind. *See also CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (noting, in the context of the claims in that case, that "a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.").

The Examiner also determines that the claims are directed to "using categories to organize, store[,] and transmit information (labeling data with categories to identify additional data label categories to generate, request and transmit)" (Final Act. 4), which we conclude are certain methods of organizing human activity, i.e., managing interactions between patients and a medical personnel when filling out forms.

Similarly, in *Cyberfone*, the Court held that "using categories to organize, store, and transmit information is well-established," and "the well-known concept of categorical data storage, i.e., the idea of collecting information in classified form, then separating and transmitting that information according to its classification, is an abstract idea that is not patent-eligible." *Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App'x. 988, 992 (Fed. Cir. 2014) (emphasis omitted).

6

We conclude that *even if* we agree with the Examiner that claim 1 recites a judicial exception, i.e., either a mental process and/or certain methods of organizing human activity (and do not integrate that exception into a practical application), Appellants raise a persuasive issue regarding whether claim 1 adds additional limitations beyond the judicial exception that are not "well-understood, routine, and conventional" in the field (*see* MPEP § 2106.05(d)).

Specifically, Appellants contend that claim 1 includes the following steps: *generating . . . the first request for the second set of information in a preformatted medical form . . . associated with the first potential condition of the patient* (App. Br. 31–32) to identify a second potential condition and that "[t]hese process steps allow for the system to request information from the patient that is relevant to a possible clinical problem which the user did not anticipate . . . these steps do not represent a routine and conventional mental process" (*id.* at 32). Appellants further contend that "[t]he Office has presented no evidence supporting the assertion that these steps are routine and conventional" (*id.*).

In response, the Examiner determines that "the claims do not include additional limitations that are sufficient to amount to significantly more than the judicial exception because the claims recite processes that are routine and well-understood in the art of healthcare communication systems" (Ans. 7). The Examiner further determines that the additional limitations amount to no more than a recitation of a "generic computer structure" (*id.* at 8, *citing* Spec. ¶¶ 54–57). However, although the Examiner points out the generic components, i.e., processor, memory, etc. (*see* Ans. 8), the Examiner fails to specifically address the above-noted limitations highlighted by Appellants.

Additionally, regarding Appellants' request for "evidence supporting the assertion" of being routine and conventional, the Examiner notes that "documentary evidence is not required" (*see* Ans. 17).

However, a factual determination is required. *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.").

On the record before us, the Examiner has not provided any factual finding (*see* Ans. 16–18; *see also* Final Act. 3–5) that the specifically claimed manner of *providing the first request . . . in a preformatted medical form . . . associated with the first potential condition . . . to identify a second potential condition* is well-understood, routine, or conventional, mainly because the Examiner wrongly believes none is required. Thus, under *Alice Step Two* and *Memorandum* (3), the Examiner has not properly consider the elements of the claims, both individually and "as an ordered combination," to determine whether the additional elements transform the Examiner's asserted abstract idea into a patent-eligible application.

For at least the above reasons, the Examiner's rejection of claims 1, 4–8, 10, 11, and 14–22 under 35 U.S.C. § 101 is reversed.

DECISION

We reverse the Examiner's § 101 rejection.

REVERSED

8