



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/044,455	10/02/2013	Kunter Seref Akbay	263638-US-2	3603
101057	7590	12/20/2019	EXAMINER	
Hanley, Flight & Zimmerman, LLC (GE) 150 S. Wacker Drive Suite 2200 Chicago, IL 60606			WINSTON III, EDWARD B	
			ART UNIT	PAPER NUMBER
			3626	
			NOTIFICATION DATE	DELIVERY MODE
			12/20/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@hfzlaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KUNTER SEREF AKBAY, SRINIVAS BOLLAPRAGADA,
ANDREW PHELPS DAY, ILKIN ONUR DULGEROGLU, DAVID S.
TOLEDANO, BEX GEORGE THOMAS, PETER LEIGH KATLIC,
MANMEET SINGH, and MARCIA PETERSON

Appeal 2019-000926
Application 14/044,455
Technology Center 3600

BEFORE MAHSHID D. SAADAT, JENNIFER L. MCKEOWN, and
BETH Z. SHAW, *Administrative Patent Judges*.

SHAW, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–4 and 6–21. Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “Applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as General Electric Company. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to a system and method to automatically assign resources in a network of healthcare enterprises. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method, comprising:

continuously and automatically receiving first current resource data indicative of a current state of first resources that are used to deliver healthcare to a plurality of patients associated with a first of a plurality of healthcare enterprises networked in a multi-hospital network, wherein the first resources comprise first medical equipment associated with an X-ray and MRI unit;

automatically using the first current resource data to update, by a computer processor, a healthcare enterprise simulation model related to medical equipment associated with X-ray and MRI units that are associated with the plurality of healthcare enterprises;

executing, by the computer processor, the healthcare enterprise simulation model to automatically generate a predicted future state of the first resources, wherein the predicted future state of the first resources is based at least in part on second resource data indicative of a state of second resources that are used to deliver healthcare to a plurality of patients associated with a second of the plurality of healthcare enterprises remote from the first of the plurality of healthcare enterprises wherein the second resources comprise second medical equipment associated with an X-ray and MRI unit;

based on the predicted future state of the first resources, determining that too many patients will be assigned to the first resources at the first of the plurality of healthcare enterprises;

in response to the determining, revising resource assignments in connection with one or more other of the plurality of healthcare enterprises;

facilitate accurate resource and patient flow management throughout the entire multi-hospital network; and

display on a Graphical User Interface an assignment of the resource throughout the entire multi-hospital network.

REFERENCES

The prior art relied upon by the Examiner is:

Becker	US 2009/0248439 A1	Oct. 1, 2009
Mellin	US 2010/0198609 A1	Aug. 5, 2010
McLaren	US 2010/0306858 A1	Dec. 2, 2010
Auker	US 2010/0318378 A1	Dec. 16, 2010

REJECTIONS

Claims 1–4 and 6–21 are rejected under 35 U.S.C. § 101.

Claims 1–4, 6 and 11–21 are rejected under pre–AIA 35 U.S.C. § 103(a) as being unpatentable over Mellin, Becker, and McLaren. Final Act. 5.

Claims 7–10 are rejected under pre–AIA 35 U.S.C. § 103(a) as being unpatentable over Mellin, Becker, McLaren, and Auker. Final Act. 12.

OPINION

Section 101 Rejection

Appellant argues the pending claims as a group. As permitted by 37 C.F.R. § 41.37, we decide this issue based on claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv)(2016).

Section 101 of the Patent Act provides that “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” is patent eligible. 35 U.S.C. § 101. But the Supreme Court has long recognized an implicit exception to this section: “Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

Appeal 2019-000926
Application 14/044,455

To determine whether a claim falls within one of these excluded categories, the Court has set out a two-part framework. The framework requires us first to consider whether the claim is “directed to one of those patent-ineligible concepts.” *Alice*, 573 U.S. at 217. If so, we then examine “the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78, 79 (2012)). That is, we examine the claims for an “inventive concept,” “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*, 573 U.S. at 217–18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

The Patent Office has issued guidance about this framework. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Eligibility Guidance”). Under the guidance, to decide whether a claim is “directed to” an abstract idea, we evaluate whether the claim (1) recites an abstract idea grouping listed in the guidance *and* (2) fails to integrate the recited abstract idea into a practical application. *See* 2019 Eligibility Guidance, 84 Fed. Reg. at 51. If the claim is “directed to” an abstract idea, as noted above, we then determine whether the claim recites an inventive concept. The 2019 Eligibility Guidance explains that when making this determination, we should consider whether the additional claim elements add “a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field” or “simply append[] well-understood, routine, conventional activities previously known to the industry.” 2019 Eligibility Guidance, 84 Fed. Reg. at 56.

With these principals in mind, we turn to the Examiner's § 101 rejection.

Abstract Idea

Turning to Step 2A, Prong 1, the claimed method includes the following limitations, emphasized in italics:

continuously and automatically receiving first current resource data indicative of a current state of first resources that are used to deliver healthcare to a plurality of patients associated with a first of a plurality of healthcare enterprises networked in a multi-hospital network, wherein the first resources comprise first medical equipment associated with an X-ray and MRI unit;

automatically using the first current resource data to update, by a computer processor, a healthcare enterprise simulation model related to medical equipment associated with X-ray and MRI units that are associated with the plurality of healthcare enterprises;

executing, by the computer processor, the healthcare enterprise simulation model to automatically generate a predicted future state of the first resources, wherein the predicted future state of the first resources is based at least in part on second resource data indicative of a state of second resources that are used to deliver healthcare to a plurality of patients associated with a second of the plurality of healthcare enterprises remote from the first of the plurality of healthcare enterprises wherein the second resources comprise second medical equipment associated with an X-ray and MRI unit;

based on the predicted future state of the first resources, determining that too many patients will be assigned to the first resources at the first of the plurality of healthcare enterprises;

in response to the determining, revising resource assignments in connection with one or more other of the plurality of healthcare enterprises;

facilitate accurate resource and patient flow management throughout the entire multi-hospital network.

Appeal 2019-000926
Application 14/044,455

Claim 1 recites an abstract idea grouping listed in the 2019 Eligibility Guidance: “mental processes.” *See* 2019 Eligibility Guidance, 84 Fed. Reg. at 52, 53 (listing “[m]ental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion)” as one of the “enumerated groupings of abstract ideas” (footnote omitted)). The guidance explains that “mental processes” include acts that people can perform in their minds or using pen and paper, even if the claim recites that a generic computer component performs the acts. *See* 2019 Eligibility Guidance, 84 Fed. Reg. at 52 n.14 (“If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind.”); *see also Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (“[W]ith the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.”), *quoted in* 2019 Eligibility Guidance, 84 Fed. Reg. at 52 n.14; *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016) (holding that computer-implemented method for “‘anonymous loan shopping’” was an abstract idea because it could be “performed by humans without a computer”); *quoted in* 2019 Eligibility Guidance, 84 Fed. Reg. at 52 n.14.

The method recited in claim 1 executes steps that people can perform in their minds or using pen and paper. A person can perform each of the italicized steps of claim 1 by using his or her mind, or pen and paper, in the claimed manner. For example, a person can “receive first current resource data” using his or her mind or pen and paper. A person can “*us[e] the first*

current resource data to update” “a healthcare enterprise simulation model,” using his or her mind or pen and paper. A person can “*generate a predicted future state of the first resources, wherein the predicted future state of the first resources is based at least in part on second resource data indicative of a state of second resources that are used to deliver healthcare to a plurality of patients associated with a second of the plurality of healthcare enterprises remote from the first of the plurality of healthcare enterprises wherein the second resources comprise second medical equipment associated with an X-ray and MRI unit,*” using his or her mind or pen and paper. A person can determine, “*based on the predicted future state of the first resources, . . . that too many patients will be assigned to the first resources at the first of the plurality of healthcare enterprises,*” using his or her mind or pen and paper. A person can “*in response to the determining, revis[e] resource assignments in connection with one or more other of the plurality of healthcare enterprises,*” using his or her mind or pen and paper. A person can “*facilitate accurate resource and patient flow management throughout the entire multi-hospital network,*” using his or her mind or pen and paper.

Turning to Step 2A, Prong 2, the remaining elements recited in claim 1 do not integrate the abstract idea into a practical application. In addition to the steps discussed above, claim 1 recites a “computer processor” and a “display” with a graphical user interface. The recited computer processor and display are generic components. *See, e.g.,* Spec. Fig. 1, ¶¶ 63 (“a processor 910, such as one or more commercially available Central Processing Units (CPUs) in the form of one-chip microprocessors”), 64. *See* 2019 Eligibility Guidance, 84 Fed. Reg. at 55 (identifying “merely includ[ing] instructions to implement an abstract idea on a computer” as an

example of when an abstract idea has not been integrated into a practical application).

We are not persuaded that the claimed invention improves the computer or its components' functionality or efficiency, or otherwise changes the way those devices function, at least in the sense contemplated by the Federal Circuit in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016), despite Appellant's arguments to the contrary (Appeal Br. 5; Reply Br. 5). The claimed self-referential table in *Enfish* was a specific type of data structure designed to improve the way a computer stores and retrieves data in memory. *Enfish*, 822 F.3d at 1339. To the extent Appellant contends that the claimed invention uses such a data structure to improve a computer's functionality or efficiency, or otherwise change the way that device functions, there is no persuasive evidence on this record to substantiate such a contention.

Appellant's reliance on *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (Appeal Br. 6; Reply Br. 6) is also unavailing. There, the court held eligible claims directed to a technology-based solution to filter Internet content that overcame existing problems with other Internet filtering systems by making a known filtering solution—namely a “one-size-fits-all” filter at an Internet Service Provider (ISP)—more dynamic and efficient via individualized filtering at the ISP. *BASCOM*, 827 F.3d at 1351. Notably, this customizable filtering solution improved the computer system's performance and, therefore, was patent-eligible. *See id.* But unlike the filtering system improvements in *BASCOM* that added significantly more to the abstract idea in that case, the claimed invention here uses generic computing components to implement an abstract idea.

Nor is this invention analogous to that which the court held eligible in *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) despite Appellant's arguments to the contrary (Appeal Br. 7; Reply Br. 5). There, the claimed process used a combined order of specific rules that rendered information in a specific format that was applied to create a sequence of synchronized, animated characters. *McRO*, 837 F.3d at 1315. Notably, the recited process *automatically animated characters* using particular information and techniques—an improvement over manual three-dimensional animation techniques that was not directed to an abstract idea. *Id.* at 1316.

But unlike the claimed invention in *McRO* that improved how the physical display operated to produce better quality images, the claimed invention here merely uses generic computing components to facilitate accurate resource and patient flow management. This generic computer implementation is not only directed to a mental process, but also does not improve a display mechanism as was the case in *McRO*. *See SAP Am. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (distinguishing *McRO*).

Thus, the claims do not integrate the judicial exception into a practical application. The claims do not (1) improve the functioning of a computer or other technology, (2) are not applied with any particular machine (except for a generic computer), (3) do not effect a transformation of a particular article to a different state, and (4) are not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception. *See MPEP*

Appeal 2019-000926
Application 14/044,455

§§ 2106.05(a)–(c), (e)–(h). We, therefore, agree with the Examiner that claim 1 is directed to an abstract idea.

Inventive Concept

Because we determine claim 1 is “directed to” an abstract idea, we consider whether claim 1 recites an “inventive concept.” The Examiner determined claim 1 does not recite an inventive concept because the additional elements in the claim do not amount to “significantly more” than an abstract idea. *See* Final Act. 3, 4.

We agree with the Examiner’s determination. As noted above, the claimed invention merely uses generic computing components to implement the recited abstract idea. The additional elements recited in the claim include the “computer processor” and a “display” with a graphical user interface. The claim recites these elements at a high level of generality, and the written description indicates that these elements are generic computer components. *See, e.g.*, Spec. ¶¶ 63, 64, Fig. 9. Using generic computer components to perform abstract ideas does not provide the necessary inventive concept. *See Alice*, 573 U.S. at 223 (“[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.”). Thus, these elements, taken individually or together in combination, do not amount to “significantly more” than the abstract ideas themselves.

Appellant contends various elements recited in the claim provide the necessary inventive concept. Appeal Br. 6–8. But these elements form part of the recited abstract ideas and thus are not “additional elements” that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 78); *see also* 2019 Eligibility Guidance, 84 Fed. Reg. at 55 n.24 (“USPTO guidance uses the term ‘additional elements’ to refer to claim features, limitations, and/or steps

Appeal 2019-000926
Application 14/044,455

that are recited in the claim *beyond the identified judicial exception.*”
(Emphasis added)).

Rather, the recited “computer processor” and “display” are the additional recited elements whose generic computing functionality is well-understood, routine, and conventional. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1368 (Fed. Cir. 2015) (noting that a recited user profile (i.e., a profile keyed to a user identity), database, and communication medium are generic computer elements); *Mortg. Grader*, 811 F.3d at 1324–25 (noting that components such as an “interface,” “network,” and “database” are generic computer components that do not satisfy the inventive concept requirement). *Accord* Final Act. 4, 5 (concluding that the claims’ additional generic computer components do not add significantly more than the abstract idea.). Appellant’s arguments do not persuade us claim 1 is “directed to” a patent-eligible concept.

To the extent Appellant contends that the claimed invention is rooted in technology because it is ostensibly directed to a technical solution (*see* Appeal Br. 10–13; Reply Br. 2–7), we disagree. Even assuming, without deciding, that the claimed invention can facilitate accurate resource and patient flow management for a network of healthcare enterprises faster than doing so manually, any speed increase comes from the capabilities of the generic computer components—not the recited process itself. *See FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016) (citing *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 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 materially alter the patent eligibility of the claimed subject matter.”)); *see also Intellectual Ventures I LLC v. Erie Indemnity Co.*, 711 F. App’x 1012,

Appeal 2019-000926
Application 14/044,455

1017 (Fed. Cir. 2017) (unpublished) (“Though the claims purport to accelerate the process of finding errant files and to reduce error, we have held that speed and accuracy increases stemming from the ordinary capabilities of a general-purpose computer ‘do[] not materially alter the patent eligibility of the claimed subject matter.’”). Like the claims in *FairWarning*, the focus of claim 1 is not on an improvement in computer processors as tools, but on certain independently abstract ideas that use generic computing components as tools. *See FairWarning*, 839 F.3d at 1095 (citations and quotation marks omitted).

Appellant contends the Examiner erred in rejecting the claims under 35 U.S.C. § 101, because the claims do not preempt others from using the abstract idea. Reply Br. 7–8. We are not persuaded of Examiner error by this argument. Preemption is a driving concern when determining patent eligibility. *See Alice*, 573 U.S. at 216–17. Patent law cannot inhibit further discovery by improperly tying up the future use of the building blocks of human ingenuity. *See id.* (citing *Mayo*, 566 U.S. at 85–86). Although preemption is characterized as a driving concern for patent eligibility, preemption itself is not the test for patent eligibility. “Where a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

Accordingly, we sustain the rejection of claims 1–4 and 6–21 under 35 U.S.C. § 101.

Appellant argues the combination of references fails to teach or suggest, “facilitate accurate resource and patient flow management throughout the entire multi-hospital network; and display on a Graphical User Interface an assignment of the resource throughout the entire multi-hospital network,” as recited in independent claim 1. Appeal Br. 18. The Examiner finds McLaren, in paragraph 38, teaches these disputed elements. Ans. 15, 16.

Appellant argues McLaren’s paragraph 38 does not teach the claimed facilitating and display. Reply Br. 9. Yet, other than citing and replicating paragraph 38 of McLaren, Appellant does not explain why the cited portion of McLaren fails to teach the disputed elements.

McLaren discusses, for example, a “central, unified repository of patient and case information for one or more practices, facilitating maintenance and display of a graphical case board, enabling entry and display of medical professional activity information and patient treatment information. . . .” McLaren ¶ 38. McLaren also teaches “facilitate[ing] ease-of-use and other medical case information management functions.” *Id.* Accordingly, we agree with the Examiner’s findings that McLaren teaches the disputed limitations, i.e., “facilitate accurate resource and patient flow management throughout the entire multi-hospital network; and display on a Graphical User Interface an assignment of the resource throughout the entire multi-hospital network.” In the absence of sufficient evidence or line of technical reasoning to the contrary, for the reasons stated above and in the Final Rejection and Answer, we sustain the Examiner’s rejection of claim 1, and of independent claims 19 and 21, which were argued together with claim

Appeal 2019-000926
Application 14/044,455

1. *See* Appeal Br. 14. We also sustain the § 103 rejection of the remaining pending claims, which were not argued separately.

CONCLUSION

The Examiner's rejections are affirmed.

More specifically,

CONCLUSION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-4, 6-21	101		1-4, 6-21	
1-4, 6 11-21	103	Mellin, Becker, McLaren	1-4, 6 11-21	
7-10	103	Mellin, Becker, McLaren, Auker	7-10	
Overall Outcome			1-4, 6-21	

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