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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* GREG WHITSITT, MICAH WHITACRE, and ANDREW OLSON

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Appeal 2018-007908[1]
Application 14/258,338
Technology Center 3600

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Before HUBERT C. LORIN, NINA L. MEDLOCK, and MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant[2] appeals under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–20, which constitute all the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] Our decision references Appellant's Appeal Brief ("App. Br.," filed January 16, 2018) and Reply Brief ("Reply Br.," filed July 31, 2018), and the Examiner's Answer ("Ans.," mailed May 31, 2018) and Final Office Action ("Final Act.," mailed February 1, 2017).

[2] Appellant identifies "Cerner Innovation, Inc." as the real party in interest. App. Br. 3.

## CLAIMED INVENTION

Appellant's claimed invention relates to "synchronizing healthcare data across multiple, disparate data centers." Spec. ¶ 5.

Claims 1, 11, and 17 are the independent claims on appeal. Claim 1, reproduced below with bracketed notations and indentation added, is illustrative of the claimed subject matter:

> 1. A computer-implemented system for synchronizing healthcare data across geographically-disparate data centers, the computer-implemented system comprising:
> [a] a data collector service operable to:
> [b] receive healthcare data from a plurality of healthcare data sources, and
> [c] communicate the healthcare data to a first staging platform associated with a first data center, wherein the first data center is remote from the plurality of health care data sources;
> [d] the first staging platform associated with the first data center operable to:
> [e] store the healthcare data in association with a first long-term storage data store located at the first data center;
> [f] communicate the healthcare data to one or more processing nodes associated with the first data center; and
> [g] communicate the healthcare data to a second staging platform associated with a second geographically-disparate data center,
> [h] the second staging platform operable to
> [i] store the healthcare data in association with a second long-term storage data store located at the second data center and
> [j] communicate the healthcare data to one or more processing nodes associated with the second data center.

## REJECTIONS

1. Claims 1–20 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

2. Claims 1–20 are rejected under 35 U.S.C. § 103 as unpatentable over Bormann et al. (US 2005/0071194 A1, pub. Mar. 31, 2005) and Joao (US 2002/0032583 A1, pub. Mar. 14, 2002).

## ANALYSIS

### *Patent-Ineligible Subject Matter*

Appellant argues claims 1–20 as a group (s*ee* Appeal Br. 11–27; *see also* Reply Br. 2–9). We select independent claim 1 as representative. Claims 2–20 stand or fall with independent claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

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." 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. 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*. *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See id.* 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.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 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, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); "tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Gottschalk*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

If the claim is "directed to" an abstract idea, we turn to the second step of the *Mayo/Alice* 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*, at 221 (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.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[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) ("2019 Revised Guidance"). 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 activity such as a fundamental economic practice, or mental processes); and

(2) additional elements that integrate the judicial exception into a practical application, i.e., that "apply, rely on, or use 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." *See* 2019 Revised Guidance, 84 Fed. Reg. at 53; *see also* 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 is 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* 2019 Revised Guidance, 84 Fed. Reg. at 56.

On pages 11–14 of the Appeal Brief, Appellant discusses Supreme Court and Federal Circuit cases generally, without specifically addressing the case before us on appeal.

Next, Appellant argues that the Examiner's rejection is in error because the Examiner fails to establish a prima facie case of subject matter ineligibility (*see* Appeal Br. 14–17 and 21–23; *see also* Reply Br. 2–8). Appellant's arguments are not persuasive.

In rejecting the pending claims under 35 U.S.C. § 101, the Examiner analyzes the claims using the *Mayo*/*Alice* two-step framework (*see* Final Act. 14–17; *see also* Ans. 16–24). The Examiner states that independent claim 1 recites that

> healthcare data is received from a plurality of healthcare sources, organized and stored using a first and a second staging platform, both of which are associated with geographically disparate data centers, and communicated and/or transmitted to either said first or second staging platforms based on processing nodes associated with their respective data centers.

(Final Act. 15). The Examiner considers this to be an abstract idea, inasmuch as it is similar to abstract ideas identified by the Federal Circuit, including the abstract idea of "using categories to organize, store and transmit information" in *Cyberfone Systems v. CNN Interactive Group*, 558 F. App'x 988 (Fed. Cir. 2014) and the abstract idea of "collecting information, analyzing it, and displaying certain results of the collection and analysis" in *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) (*see* Ans. 16; *see also* Final Act. 15). *See also* Ans. 22 (citing *CyberSource Corp. v. Retail Decisions, Inc*., 654 F.3d 1366, 1372–73 (Fed. Cir. 2011)). The Examiner further states that independent claim 1 does not include additional elements or a combination of elements sufficient to transform the claim into a patent-eligible application of the abstract idea (*see* Final Act. 15; *see also* Ans. 16–18). The Examiner, thus, has followed the two-part framework specified by the Supreme Court in *Mayo*/*Alice* consistent with Office guidelines.

In this regard, the Examiner has articulated the reasons for the rejection and has notified Appellant of the reasons for the rejection "together

with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application." 35 U.S.C. § 132.[3] And we find that, in doing so, the Examiner sets forth a prima facie case of subject matter ineligibility. *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011); *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990) (Section 132 "is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection."). And, when viewed through the lens of the 2019 Revised Guidance, the Examiner's analysis depicts the claimed subject matter as one of the ineligible "methods of organizing human activity" or "[m]ental processes" under Prong One of Revised Step 2A. *See* 2019 Revised Guidance, 84 Fed. Reg. at 51–52.

We note the Appellant's argument in the Reply Brief that the Examiner erred by identifying multiple or alternative abstract ideas in the claims (Reply Br. 5). That argument is not persuasive of Examiner error because a claim can include numerous distinct abstract ideas, and a single abstract idea can be characterized using different words or phrases. *See Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240–41 (Fed. Cir. 2016) ("An abstract idea can generally be described at different levels of abstraction. As the Board has done, the claimed abstract idea could be described as generating menus on a computer, or generating a second menu from a first menu and sending the second menu to another location. It could be described

[3] Indeed, Appellant acknowledges that "in the Response to Argument section, the Office provides additional detail regarding the rationale behind the rejection." App. Br. 16 (citing Final Act. 14–17).

in other ways, including, as indicated in the specification, taking orders from restaurant customers on a computer.").

In response to the Examiner's determination, Appellant argues that the claims are not directed to an abstract idea pursuant to the Federal Circuit decision in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) (App. Br. 20). More particularly, Appellant argues that "the Office has failed to present a rationale which can be applied to the present claims but still distinguishes against the unquestionably allowable claims in *Enfish*" (*id.*).

However, there is a fundamental difference between computer functionality improvements, on the one hand, and uses of existing computers as tools to perform a particular task, on the other (*see, e.g.*, Spec.¶¶ 18–19). Indeed, the Federal Circuit applied this distinction in *Enfish* in rejecting a § 101 challenge at the step one stage of the *Mayo*/*Alice* analysis because the claims at issue focused on a specific type of data structure, i.e., a self-referential table for a computer database, designed to improve the way a computer carries out its basic functions of storing and retrieving data, and not on asserted advances in uses to which existing computer capabilities could be put. *Enfish*, 822 F.3d at 1335–36.

We find no parallel here between independent claim 1 and the claims in *Enfish* nor any comparable aspect in claim 1 that represents "an improvement to computer functionality." Instead, we agree with the Examiner that here "[t]here is no indication that the combination of elements improves the functioning of a computer or improves any other technology." (Final Act. 17; Ans. 18). Here, the Specification, including the claim

language, make clear that the claims focus on an abstract idea, and not on any improvement to computer technology and/or functionality.

The Specification is titled "SYNCHRONIZATION OF HEALTHCARE DATA ACROSS DISPARATE DATA CENTERS," and states that "there has been a dramatic increase in the number of computer application solutions that utilize healthcare data to generate outcome data that is relevant to clinicians and patients" (Spec. ¶ 1). The Specification identifies several problems faced by healthcare operating platforms, for example, that "a computing solution that utilizes a defined set of healthcare data from a healthcare data source may be located at a first data center, and another solution that requires the same set of healthcare data may be located at a second geographically-disparate data center" (*id.* ¶ 2). This scenario can result in increased data center hosting costs (*id.*) and loss of healthcare data due to disasters occurring at the data center hosting the data (*id.* ¶ 3). To solve these problems, the Specification describes "methods, systems, and computer-readable media for synchronizing healthcare data across multiple, disparate data centers" wherein "[h]ealthcare data sources such as, for example, healthcare organizations upload their data to a data collector service that is part of a cloud computing platform" and a "data collector service acts as a front door to any number of different data centers" (*id.* ¶ 5). According to the Specification, "[a]s the data collector service receives the healthcare data it is placed in a staging platform associated with a first data center that is hosting the collector service" (*id.*).

Consistent with this description, independent claim 1 recites broadly "[a] computer-implemented system for synchronizing healthcare data across geographically-disparate data centers" comprising "[a] a data collector

service operable to" perform two steps including "[b] receive healthcare data from a plurality of healthcare data sources," and "[c] communicate the healthcare data to a first staging platform associated with a first data center." Claim 1 further recites "[d] the first staging platform" is operable to perform three steps including "[e] store the healthcare data . . . ," [f] "communicate the healthcare data to one or more processing nodes . . . ," and "[g] communicate the healthcare data to a second staging platform." Claim 1 further recites "[h] the second staging platform" is operable to perform two steps including "[i] store the healthcare data . . ." and "[j] communicate the healthcare data to one or more processing nodes . . ." Claim 1 also recites "wherein the first data center is remote from the plurality of health care data sources."

Upon reviewing the Specification and the claim as whole, as summarized above, we determine that independent claim 1 is directed broadly to "synchronizing healthcare data across geographically-disparate data centers." Here, independent claim 1 receives information (i.e., healthcare data from a plurality of healthcare data sources (limitation [b])), transmits information (i.e., the healthcare data to a first staging platform associated with a first data center (limitation [c])), stores information (i.e., the healthcare data in association with a first long-term storage data store located at the first data center (limitation [e])), transmits information (i.e., the healthcare data to one or more processing nodes associated with the first data center (limitation [f])), transmits information (i.e., the healthcare data to a second staging platform associated with a second geographically-disparate data center (limitation [g])), stores information (i.e., the healthcare data in association with a second long-term storage data store located at the second

data center (limitation [i])), and transmits information (i.e., the healthcare data to one or more processing nodes associated with the second data center (limitation [j])).

The Federal Circuit has consistently held that abstract ideas include the concepts of collecting data, analyzing the data, and displaying the results of the collection and analysis, including when limited to particular content. *See, e.g.*, *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017) (identifying the abstract idea of collecting, displaying, and manipulating data); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (characterizing collecting information, analyzing information by steps people go through in their minds, or by mathematical algorithms, and presenting the results of collecting and analyzing information, without more, as matters within the realm of abstract ideas); *see also SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018) ("As many cases make clear, even if a process of collecting and analyzing information is 'limited to particular content' or a particular 'source,' that limitation does not make the collection and analysis other than abstract." (quoting *Elec. Power Grp.*, 830 F.3d at 1353, 1355 (citing cases))). *Cf.* 2019 Revised Guidance, 84 Fed. Reg. at 52–53.

We also note that the present claims are similar to certain "unpatentable mental processes" that our reviewing courts have found patent ineligible, such as "steps [that] can be performed in the human mind, or by a human using a pen and paper" in *CyberSource*, 654 F.3d at 1372–73, and "using an electronic device to obtain clinical trial data that would otherwise be collected by pen-and-paper diary, and analyzing the data to decide whether to prompt action" in *eResearchTechnology, Inc. v. CRF, Inc.*,

186 F.Supp.3d 463, 473 (W.D. Pa. 2016), *aff'd*, 681 F. App'x 964 (mem) (Fed. Cir. 2017) (citing *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1361–62 (Fed. Cir. 2015); *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."); *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").

We note the Appellant's argument in the Reply Brief that "the present claims recite non-mental steps and features, such as specific characteristics of specific structures such as data centers, staging platforms, and processing nodes and how these structures interconnect and interact" (Reply Br. 9). The difficulty with that argument is that, as discussed in detail below, the only interconnection or interaction required by claim 1 is receiving, storing, and transmitting data between generic computer components via some unspecified communication medium. *Cf. Versata Dev. Grp. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) ("Courts have examined claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person's mind.").

Having concluded that claim 1 recites a judicial exception, i.e., an abstract idea, we turn to the second prong of step 2A of the 2019 Revised Guidance and determine whether the claim recites a practical application of the recited judicial exception. Here we look to see if, for example, any

additional elements of the claim reflect (i) an improvement in the functioning of a computer or to another technological field, (ii) an application of the judicial exception with, or by use of, a particular machine, (iii) a transformation or reduction of a particular article to a different state or thing, or (iv) a use of the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment. *See* 2019 Revised Guidance, 84 Fed. Reg. at 55; *See also* MPEP § 2106.05(a)–(c), (e)–(h).

We find no indication in the Specification, nor does Appellant direct us to any indication, that the operations recited in independent claim 1 invoke any assertedly inventive programming, require any specialized computer hardware or other inventive computer components, i.e., a particular machine, or that the claimed invention is implemented using other than generic computer components to perform generic computer functions. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) ("[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.").

We also find no indication in the Specification that the claimed invention effects a transformation or reduction of a particular article to a different state or thing. Nor do we find anything of record, short of attorney argument, that attributes any improvement in computer technology and/or functionality to the claimed invention or that otherwise indicates that the claimed invention "appl[ies], rel[ies] on, or us[es] 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." *See* 2019 Revised Guidance, 84 Fed. Reg. at 53.

Turning to Step 2B of the of the 2019 Revised Guidance, we determine whether the additional elements (1) add a specific limitation or combination of limitations that is not well-understood, routine, and conventional activity in the field, which is indicative that an inventive concept may be present or (2) simply append well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present. *See* 2019 Revised Guidance, 84 Fed. Reg. at 56.

The Examiner determined that the claims merely include "[g]eneric computer components recited as performing generic computer functions that are well-understood, routine and conventional activities [and] amount to no more than implementing the abstract idea with a computerized system" and that "[l]ooking at the limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually" (Final Act. 16–17). The Examiner identified additional elements of claim 1 as including "a computer-implemented system," "a data collector service," "a first staging platform," "a first long-term storage data store," "one or more processing nodes," "a second staging platform," and "a second long-term storage data store" (Ans. 17). According to the Examiner, the additional elements "merely serve to link the abstract idea to a particular technological environment and, when considered individually, perform routine and conventional activities that are well-understood in the healthcare data processing industry such as receiving data, transmitting data (i.e.,

communicat[ing] healthcare data to staging platform(s)), storing data, processing data, etc." (*id.* at 18).

Appellant argues that "the Office fails to actually consider the structural elements of the claimed system" and that "it is in these structural elements where the inventive concept of this claimed invention can best be appreciated" (App. Br. 23). According to Appellant, "the first and second data centers are required to be geographically-disparate from one another and remote from the healthcare data sources" and thus, Appellant contends that "the system implemented in the invention is not merely routine and conventional, but represents a distributed system for storage and processing of healthcare data which, due to its distributed structure, provides functional advantages to a healthcare enterprise" (*id.* at 25). Appellant contends that "these elements are related to the expressed purpose of the invention; synchronizing healthcare data across geographically-disparate data centers" (*id.*). Appellant further argues that the pending claims, like the claims in *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016), are patent-eligible because they provide "various advantages including quick access to healthcare data, protection against failure or loss of data, and low-latency processing" (*id.* at 26) (citing Spec. ¶ 5).

The first difficulty with Appellant's argument is that the argued improvements are not reflected in claim 1, and thus cannot be relied upon to provide an inventive concept in claim 1. *See Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) ("[T]he complexity of the implementing software or the level of detail in the specification does not transform a claim reciting only an abstract concept

into a patent-eligible system or method."); *see also Intellectual Ventures*, 838 F.3d at 1322 ("The district court erred in relying on technological details set forth in the patent's specification and not set forth in the claims to find an inventive concept" (citing *Accenture*, 728 F.3d at 1345; *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 116 F.3d 1343, 1346 (Fed. Cir. 2014))). Here, Appellant argues that the claims are patent-eligible because they provide three benefits as set forth in paragraph 5 of the Specification: (1) quick access to healthcare data, (2) protection against failure or loss of data, and (3) low-latency processing (App. Br. 26). As to the first improvement ("quick access to healthcare data"), paragraph 5 of Appellant's Specification discloses that "[t]he staging platform comprises durable, short-term storage (e.g., a durable cache) which allows for quick access to the healthcare data." However, claim 1 does not recite any short-term storage (or a durable cache).[4] As to the second improvement, ("protection against failure or loss of data"), paragraph 5 describes that data loss is prevented because "data is durably replicated across multiple servers in the staging platform." However, claim 1 does not recite multiple servers in either the first or second staging platform, nor does claim 1 call for durably replicating any data. As to the third improvement, "low-latency processing," paragraph 5 describes that "the data is indexed such that it is

[4] We note that dependent claim 4, which is not separately argued, recites "a durable cache." However, we do not see that the Specification discloses a new type of durable cache. Rather, the Specification merely discloses that "[t]he staging platform 238 comprises a durable cache that provides quick access to the healthcare data." Spec. ¶ 36. Appellant has not shown that storing data in a generic data cache in order to provide "quick access" is anything other than a well-understood, routine, and conventional practice in the field of data storage.

available for low-latency processing." But claim 1 does not recite any index or indexing. Therefore, Appellant's arguments are unpersuasive at least because they are not commensurate with the scope of claim 1.

Moreover, we do not agree that *BASCOM* is sufficiently analogous to control the outcome here. In *BASCOM*, the Federal Circuit held that the second step of the *Mayo*/*Alice* framework was satisfied because the claimed invention "represents a 'software-based invention[ ] that improve[s] the performance of the computer system itself.'" *BASCOM*, 827 F.3d at 1351 (stating that like *DDR Holdings*, where the patent "claimed a technical solution to a problem unique to the Internet," the patent in *BASCOM* claimed a "technology-based solution . . . to filter content on the Internet that overcomes existing problems with other Internet filtering systems . . . making it more dynamic and efficient") (citations omitted).

Here, Appellant argues that independent claim 1 is patent-eligible because it "represents a distributed system for storage and processing of healthcare data" (App. Br. 25). We do not see how, and Appellant does not persuasively explain how, Appellant's claim 1 parallels the claims in *BASCOM*, which recited a "non-conventional and non-generic arrangement of known, conventional pieces" within a network, the arrangement of elements being "a technical improvement over the prior art ways of filtering." *BASCOM*, 827 F.3d at 1350. Other than merely referring to the system as "distributed," Appellant provides no further argument as to how the limitations recited in claim 1 effect an improvement to computer technology, such as how the elements are arranged in a non-generic or unconventional manner such that it is a technical improvement over prior art ways of storing data in a "distributed" system. *See BASCOM*, 827 F.3d

at 1351. Claim 1 does not require any specific arrangement of computer components on a network. Indeed, claim 1 does not recite any network. Claim 1 merely calls for a data collector service to collect and disseminate information via first and second staging platforms. As described in the Specification, the claimed data collector service can be implemented by a generic server computer[5] and the claimed communication may be accomplished via any type of communications link.[6] *Cf. Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (Holding that "the interactive interface limitation is a generic computer element" that does not amount to an inventive concept because "the 'interactive interface' simply describes a generic web server with attendant software, tasked with providing web pages to and communicating with the user's computer.").

Exemplary independent claim 1, unlike the claims found non-abstract in prior cases, uses generic computer technology to store, process, and transmit data, and does not recite an improvement to a particular computer technology. *See, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (finding claims not abstract

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[5] *See* Spec. ¶ 20 ("computing environment 100 comprises a computing device in the form of a control server 102.")

[6] *See* Spec. ¶ 19 ("The present invention might be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network."); *id.* ¶ 23 ("Computer networks 106 comprise local area networks (LANs) and/or wide area networks (WANs). Such networking environments are commonplace in offices, enterprise-wide computer networks, intranets, and the Internet."); *id.* ("[T]he network connections shown are exemplary and other means of establishing a communications link between the computers (e.g., control server 102 and remote computers 108) might be utilized.").

because they "focused on a specific asserted improvement in computer animation").

In this regard, we note that the functional limitations (i.e., first staging platform, first data center, first long-term storage data store, one or more processing nodes associated with the first data center, second staging platform, second data center, second long-term storage data store, one or more processing nodes associated with the second data center) for performing the steps of receiving, storing, and transmitting data are routine computer functions that may be performed by any computer system. *See In re Katz*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) ("Absent a possible narrower construction of the terms 'processing,' 'receiving,' and 'storing,' discussed below, those functions can be achieved by any general purpose computer without special programming"); *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that considering claims reciting data retrieval, analysis, modification, generation, display, and transmission as an "'ordered combination'" reveals that they "amount to 'nothing significantly more' than an instruction to apply [an] abstract idea" using generic computer technology) (internal citation omitted).

The Federal Circuit has held that "[t]he patent eligibility inquiry may contain underlying issues of fact." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018) (quoting *Mortg. Grader*, 811 F.3d at 1325 ("The § 101 inquiry 'may contain underlying factual issues.'"). "When there is no genuine issue of material fact regarding whether the claim element or claimed combination is well-understood, routine, [and] conventional to a skilled artisan in the relevant field, this issue can be decided on summary judgment as a matter of law." *Berkheimer*, 881 F.3d at 1368; *see also Aatrix*

*Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1368 (Fed. Cir. 2018) ("A factual allegation or dispute should not automatically take the determination out of the court's hands; rather, there needs to be justification for why additional evidence must be considered – the default being a legal determination."). Thus, evidence may be helpful where, for instance, facts are in dispute, but evidence is not always necessary.

Here, Appellant has not persuaded us that a factual dispute has arisen and evidence is necessary to resolve such a dispute. Appellant does not dispute the Examiner's specific determinations (*see, e.g.*, Final Act. 16–17; *see also* Ans. 22–23) that the claims contain generic computer components which perform generic computer functions.[7] Nor would there necessarily be a genuine factual dispute had Appellant more specifically contested the Examiner's determination.

"In *Berkheimer*, there was such a genuine dispute for claims 4–7, but not for claims 1–3 and 9." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1371 (Fed. Cir. 2018) (Moore, J., concurring).

> [I]n accordance with Alice, we have repeatedly recognized the absence of a genuine dispute as to eligibility for the many claims that have been defended as involving an inventive concept based merely on the idea of using existing computers or the Internet to carry out conventional processes, with no alteration of computer functionality.

*Id.* at 1373 (Moore, J., concurring). Here, independent claim 1 provides for a "[a] computer-implemented system for synchronizing healthcare data

[7] Rather, Appellant argues that portions of the Specification cited by the Examiner are "irrelevant" because "the systems that are set out in the specification are not recited in the claims" (Reply Br. 7).

across geographically-disparate data centers" comprising "a data collector service operable to" perform several functions including "receive . . . data," "communicate . . . data," and "store . . . data." As discussed above, all of these functions are common to generic computers. "Taking the claim elements separately, the function performed by the computer at each step [of the process] . . . is '[p]urely conventional."' *Alice*, 573 U.S. at 225 (citing *Mayo*, 566 U.S. at 81). "Considered 'as an ordered combination,' the computer components of [Appellant's] method 'ad[d] nothing . . . that is not already present when the steps are considered separately.'" *Id.* *Cf.* *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (Stating "[t]hat a computer receives and sends the information over a network – with no further specification – is not even arguably inventive."); *Intellectual Ventures*, 838 F.3d at 1321 (holding that using an intermediary computer for forwarding information "is perfectly conventional").

Appellant's other arguments, including those directed to now superseded USPTO guidance, have been considered but are not persuasive of error. (*See* 2019 Revised Guidance, 84 Fed. Reg. at 51 ("Eligibility-related guidance issued prior to the Ninth Edition, R-08.2017 of the MPEP (published Jan. 2018) should not be relied upon.").) For example, quoting the USPTO's November 2, 2016 Memorandum to the Patent Examining Corps,[8] Appellant argues that the Examiner's reliance on *Cyberfone* is "contrary to current guidance and is thus erroneous" (App. Br. 17). Appellant reproduces a portion of the memorandum indicating that

[8] The memorandum is entitled "Recent Subject Matter Eligibility Decisions" (available at https://www.uspto.gov/sites/default/files/documents/McRo-Bascom-Memo.pdf).

"examiners should avoid relying upon or citing non-precedential decisions (e.g., *SmartGene*, *Cyberfone*) unless the facts of the application under examination uniquely match the facts at issue in the non-precedential decision" (*id.*). According to Appellant, "[t]he facts of the present application do not uniquely match the facts at issue in *Cyberfone*." As discussed above, the 2016 USPTO Memorandum has been superseded by the 2019 Revised Guidance, and therefore we need not decide whether claim 1 "uniquely matches the facts at issue" in *Cyberfone*.

In the Reply Brief, the Appellant argues for the first time that "the Office has failed to present valid rejections of [the dependent] claims from the outset" (Reply Br. 8). That argument is untimely because it was not presented in the Appeal Brief, and the Appellant has not attempted to show good cause for presenting it for the first time in the Reply Brief. *See* 37 C.F.R. § 41.41(b)(2). And, even if this argument had been presented in a timely fashion, it would be unpersuasive because it does not specifically identify an improvement, reflected in any particular dependent claim, which might render the claimed subject matter patent-eligible.

We are not persuaded, on the present record, that the Examiner erred in rejecting independent claim 1 under 35 U.S.C. § 101. Therefore, we sustain the Examiner's rejection of independent claim 1, and claims 2–20, which fall with independent claim 1.

*Obviousness*

Appellant again argues claims 1–20 as a group (s*ee* Appeal Br. 27–29; *see also* Reply Br. 2–9). We select independent claim 1 as representative.

Claims 2–20 stand or fall with independent claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

We are not persuaded by Appellant's argument that the Examiner erred in rejecting independent claim 1 under 35 U.S.C. § 103(a) because the combination of Bormann and Joao fails to disclose or suggest the subject matter of that claim (*see* Appeal Br. 27–29; *see also* Reply Br. 9–11).

Instead, we agree with, and adopt, the Examiner's findings and rationales as our own (*see* Final Act. 4–7 (citing Bormann ¶¶ 2, 27, 29, 32–36, 47, 48, 51–53, 56–59, 64, 65, 94, 125–130, 146, 151, and 179–181)). We add the following discussion for emphasis.

Bormann is directed to "an information sharing architecture that allows physically separate healthcare information systems, called 'deployments,' to share and exchange information." (Bormann ¶ 27). Bormann's system "allows participants in the Community to share information on data changes to these patients, and to reconcile concurrent and conflicting updates to the patient's record" (*Id.*). Bormann discloses that "[t]he deployments 20–24 may be located, by way of example rather than limitation, in separate geographic locations from each other, in different areas of the same city, or in different states" (*Id.* ¶ 28). Bormann further discloses:

> Each record that is exchanged throughout the system may be managed, or "owned," by a specific deployment. The deployment owning a record is referred to as the record's "home deployment." When a record is accessed for the first time from a deployment other than its home deployment, referred to as a "remote deployment," the home deployment may send a copy of the record to the requesting remote deployment. The remote deployment may send its updates to the home deployment. The home deployment may coordinate

> the updates it receives from remote deployments by checking for conflicting data, before publishing the consolidated updates back to the Community of deployments. While the home deployment may have greater responsibility for the records it stores and manages there, it has no greater role in the general system than do the other deployments.

(*Id.* ¶ 29).

Under heading number 1, and referring to the Examiner's findings on pages 4–5 of the Final Rejection, Appellant argues that "there is nothing within this block of text that could reasonably be considered an articulation of any reason that Bormann teaches or suggests the various features of the presently claimed invention" (App. Br. 28). We are not persuaded that the Examiner has erred. As discussed above, the cited portions of Bormann clearly disclose synchronization of data across multiple deployments in different geographical locations. Appellant does not identify any specific limitation of claim 1 that is not disclosed in Bormann. In the absence of specific arguments and technical reasoning, we do not see any merit in Appellant's argument that the Examiner's findings are in error.

Appellant next argues, under heading number 2, that "[t]he combination of references fails to teach or suggest 'wherein the first data center is remote from the plurality of health care data sources'" (App. Br. 28). According to Appellant, Bormann's "[h]ome deployment has a physical location at a healthcare facility" and "[t]he present application is directed to healthcare data located at a data center which is remote from any healthcare facilities" (*Id.*). That argument is not persuasive of examiner error at least because it is not commensurate with the scope of the claims. Claim 1 does not require that the first data center is remote from *any*

*healthcare facilities*. Rather, claim 1 recites "wherein the first data center is remote from the plurality of health care data sources" (App. Br. 31 (Claims Appendix)). Moreover, we do not see any indication in Bormann, nor does Appellant direct us to any indication, that the home deployment is not remote from a plurality of health care data source. *See* Bormann ¶ 28 ("deployments 20-24 may be located, by way of example rather than limitation, in separate geographic locations from each other, in different areas of the same city, or in different states."); *id.* ¶ 30 ("all three deployments 20–24 are peers, and each act[s] as home to a subset of the system 10's records. In other words, 'home' is merely an arbitrary convention for discussion.").

In view of the foregoing, we sustain the Examiner's rejection of independent claim 1 under 35 U.S.C. § 103(a). For the same reasons, we also sustain the Examiner's rejection of claims 2–20, which fall with claim 1.

## CONCLUSION

In summary:

| Claims Rejected | Basis | Affirmed | Reversed |
|---|---|---|---|
| 1–20 | § 101 | 1–20 | |
| 1–20 | § 103(a) Bormann, Joao | 1–20 | |
| **Overall Outcome** | | 1–20 | |

## DECISION

The Examiner's rejection of claim 1–20 under 35 U.S.C. § 101 is affirmed.

The Examiner's rejection of claims 1–20 under 35 U.S.C. § 103(a) 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