



# 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.
14/082,751	11/18/2013	Joshua Herman	RAMP-01019-US	4391
140608	7590	01/23/2020	EXAMINER	
Wright, Lindsey & Jennings LLP - LiveRamp 200 W. Capitol Ave. Ste. 2300 Little Rock, AR 72201			YESILDAG, MEHMET	
			ART UNIT	PAPER NUMBER
			3624	
			NOTIFICATION DATE	DELIVERY MODE
			01/23/2020	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):

aelliott@wlj.com  
jdougherty@wlj.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* JOSHUA HERMAN

---

Appeal 2018-008077  
Application 14/082,751  
Technology Center 3600

---

Before JOSEPH A. FISCHETTI, KENNETH G. SCHOPFER, and  
AMEE A. SHAH, *Administrative Patent Judges*.

SHAH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), the Appellant<sup>1</sup> appeals from the Examiner’s final decision to reject claims 6–9 and 20–23; claims 1–3, 5, and 16–19 are withdrawn. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

---

<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies the real party in interest as Acxiom Corporation. Appeal Br. 2.

### CLAIMED SUBJECT MATTER

The Appellant's invention generally "relates to systems and methods for delivering a marketing message to consumers, and specifically to systems and methods for recommending an audience for a marketing message based on the product or service to be marketed across multiple media channels." Spec. ¶ 3.

Claims 6 and 20 are the independent claims. Claim 6 is illustrative of the subject matter on appeal and is reproduced below:

6. A computer-implemented method for recommending an audience for a marketing message, the method steps comprising:

a. accessing at a server system a multi-sourced consumer demographic compilation database, the multi-sourced consumer demographic compilation database comprising demographic information about a large population of at least one of consumers and households and sourced at least partially from offline data, to build a segmentation database for digital media and a segmentation database for direct mail and email marketing, wherein in each of the segmentation database for digital media and the segmentation database for at least one of direct mail and email marketing a consumer segment value is assigned to each member of a set of respondents of a survey of consumer behavior;

b. constructing at the server system a plurality of data sets from the segmentation database for digital media and the segmentation database for at least one of direct mail and email marketing, wherein each of the plurality of data sets comprise the consumer segment value assigned to each member of the set of respondents to the survey of consumer behavior;

c. constructing at the server system an index table from the plurality of data sets, wherein the index table comprises a plurality of consumer behaviors and a matched set of consumer counts for each of a set of consumer segment values across each of the plurality of consumer behaviors;

d. constructing at the server system an audience recommendation table comprising the plurality of consumer behaviors, for each of the plurality of consumer behaviors a subset of the set of consumer counts that have a highest propensity index for each such consumer behavior;

e. storing the index table and audience recommendation table at a digital storage medium in communication with the server system, wherein the server system comprises a processor, wherein the processor is configured to send and receive communications over a network from a remote client device;

f. receiving at the processor a consumer behavior search term from the remote client device, wherein the consumer behavior search term comprises a natural language search term;

g. searching the audience recommendation table for consumer behaviors that match the consumer behavior search term, and identifying all matched consumer behaviors together with the subset of the set of consumer counts that have the highest propensity index for each such matched consumer behavior; and

h. sending from the processor to the remote client device, in response to the consumer behavior search term, a plurality of matching consumer behaviors.

Appeal Br. 26–28.

#### THE REJECTION

Claims 6–9 and 20–23 stand rejected under 35 U.S.C. § 101 as being directed to a judicial exception without significantly more.

#### OPINION

The Appellant argues the claims as a group. *See, e.g.*, Appeal Br. 13, 22. We select claim 6 as representative of the group, with claims 7–9 and 20–23 standing or falling therewith. *See* 37 C.F.R. § 41.37(c)(1)(iv).

**35 U.S.C. § 101 Framework**

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: “[I]aws of nature, natural phenomena, and abstract ideas” are not patentable. *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 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.”).

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)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (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 (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

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 (citation 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.*

After the Appellant’s briefs were filed and the Examiner’s Answer mailed, the U.S. Patent and Trademark Office (“USPTO”) 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”). That guidance revised the USPTO’s examination procedure with respect to the first step of the *Mayo/Alice* framework by (1) providing groupings of subject matter that are considered an abstract idea; and (2) clarifying that a claim is not “directed to” a judicial exception if the judicial exception is integrated into a practical application of that exception. *Id.* at 50. The 2019 Revised Guidance, by its terms, applies to all applications, and to all patents resulting from applications, filed before, on, or after January 7, 2019. *Id.*<sup>2</sup> Under the 2019 Revised 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 (*see* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) §§ 2106.05(a)–(c), (e)–(h) (9th Ed., Rev. 08.2017, Jan. 2018)).

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:

---

<sup>2</sup> The 2019 Revised Guidance supersedes MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) § 2106.04(II) and also supersedes all versions of the USPTO’s “Eligibility Quick Reference Sheet Identifying Abstract Ideas.” *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.”).

(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 54, 56.

### ***Step One of the Mayo/Alice Framework***

#### *Reciting a Judicial Exception*

Under the first step of the *Mayo/Alice* framework and Step 1 of Office Guidelines (*see* 2019 Revised Guidance, 84 Fed. Reg. at 53–54), we determine that claims 6–9 are directed to a process, and claims 20–23 are directed to a system, i.e., a machine, two of the categories of statutory subject matter. *See* Appeal Br. 13.

Under the first step of the *Mayo/Alice* framework and Step 2A, Prong 1 of the 2019 Revised Guidance (84 Fed. Reg. at 54), the Examiner determines that claim 6 is “directed specifically to the abstract idea of determining and recommending an audience for a marketing message by analyzing/organizing customer data based on customer segments and customer behaviors,” with limitations “all of which can be performed by a Human mentally, with pen and a paper, and/or by using a generic computer as a tool, thus which are idea of itself,” and “also include methods for organizing human activities.” Final Act. 2–4 (citing cases). When viewed through the lens of the 2019 Revised Guidance, the Examiner’s analysis depicts the claimed subject matter as a “[c]ertain method[] of organizing human activity— . . . commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales

activities or behaviors; business relations)” and a “[m]ental process[]— concepts performed in the human mind (including an observation, evaluation, judgment, opinion).”<sup>3</sup> 2019 Revised Guidance, 84 Fed. Reg. at 52 (footnotes omitted).

The Appellant disagrees and contends that the “invention is directed to specific structural limitations of the software databases and tables used to implement the invention, which interact in a novel way to solve the problem addressed by the inventors.” Appeal Br. 14–15. For at least the following reasons, we disagree.

Before determining whether the claim at issue is directed to an abstract idea, we first determine to what the claim is directed, and whether the claim recites a judicial exception. The Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36. Here, it is clear from the Specification, including the claim language, that claim 6 focuses on an abstract idea, and not on any improvement to technology and/or a technical field.

---

<sup>3</sup> For purposes conciseness, our analysis we will address only the first noted “directed to” finding made by the Examiner.

The Specification provides for a “QUICK AUDIENCE SEARCH AND RECOMMENDATION APPARATUS AND METHOD.” Spec., Title. In the “Background” section, the Specification provides “[t]he present invention relates to systems and methods for delivering a marketing message to consumers, and specifically to systems and methods for recommending an audience for a marketing message based on the product or service to be marketed across multiple media channels.” *Id.* ¶ 3. The Specification discusses that “[i]dentifying the correct consumers and correct marketing channels for a particular marketing message . . . may be a difficult task,” because companies are continuously looking for characteristics of consumers most likely to purchase and seeking to determine which marketing and media will best deliver their marketing messages, and media sellers need to demonstrate they can deliver an audience most likely to purchase advertised products. *Id.* ¶ 4. Thus, “while the benefits of targeted marketing are well known, the selection of a particular audience for a marketing message remains a complex task for both large and small companies,” a task that “requires several multi-step processes to compile the necessary information, and has never before been brought together in an automated form.” *Id.* ¶ 5. Conventional notification methods have “used nested selections of . . . applications or dropdown boxes,” that require the user to have prior knowledge of characteristics, including the highest purchasing propensity and the targeting capabilities across multiple marketing and media channels, and to search for combinations of data/customers of sufficient volume that match those characteristics, and may “take weeks or months to compile.” *Id.* The invention aims to address

these problems by providing “[a] more simple, automated system and method to perform this functionality.” *Id.*

Consistent with the disclosure, independent claim 6 recites a method “for recommending an audience for a marketing message,” comprising the steps of (1) accessing a database comprising information sourced at least partially from offline data, for the purpose of building segmentation databases with a segment value assigned to members of survey respondents, i.e.,

a. accessing at a server system a multi-sourced consumer demographic compilation database, the multi-sourced consumer demographic compilation database comprising demographic information about a large population of at least one of consumers and households and sourced at least partially from offline data, to build a segmentation database for digital media and a segmentation database for direct mail and email marketing, wherein in each of the segmentation database for digital media and the segmentation database for at least one of direct mail and email marketing a consumer segment value is assigned to each member of a set of respondents of a survey of consumer behavior;

(step a.); (2) constructing a plurality of data sets and tables from the segmentation databases, without any specific details on how, technologically, the sets and tables are constructed, i.e.,

b. constructing at the server system a plurality of data sets from the segmentation database for digital media and the segmentation database for at least one of direct mail and email marketing, wherein each of the plurality of data sets comprise the consumer segment value assigned to each member of the set of respondents to the survey of consumer behavior;

c. constructing at the server system an index table from the plurality of data sets, wherein the index table comprises a plurality of consumer behaviors and a matched set of consumer

counts for each of a set of consumer segment values across each of the plurality of consumer behaviors;

d. constructing at the server system an audience recommendation table comprising the plurality of consumer behaviors, for each of the plurality of consumer behaviors a subset of the set of consumer counts that have a highest propensity index for each such consumer behavior;

(steps (b.), (c.), and (d.); (3) storing the tables at a storage medium, i.e.,

e. storing the index table and audience recommendation table at a digital storage medium in communication with the server system, wherein the server system comprises a processor, wherein the processor is configured to send and receive communications over a network from a remote client device;

(step (e.); (4) receiving data of a natural language search term, i.e.,

f. receiving at the processor a consumer behavior search term from the remote client device, wherein the consumer behavior search term comprises a natural language search term;

(step (f.); (5) searching the table for data of behaviors matching the term and identifying the matched behaviors with counts having the highest propensity index, i.e.,

g. searching the audience recommendation table for consumer behaviors that match the consumer behavior search term, and identifying all matched consumer behaviors together with the subset of the set of consumer counts that have the highest propensity index for each such matched consumer behavior;

(step (g.); and (6) sending the matched behavior data, i.e.,

h. sending from the processor to the remote client device, in response to the consumer behavior search term, a plurality of matching consumer behaviors.

Appeal Br. 26–28. When considered collectively and under their broadest reasonable interpretations, these limitations recite a method for providing a recommendation of an audience for a marketing message, i.e., targeted

marketing, by gathering, sorting, storing, and matching data,<sup>4</sup> which is an abstract idea of a “[c]ertain method[] of organizing human activity—. . . commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations).” 2019 Revised Guidance, 84 Fed. Reg. at 52.

The courts have held similar concepts to be abstract. For example, the Federal Circuit has held abstract the concepts of customizing a user interface to have targeted advertising based on user information (*Affinity Labs of Tex., LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1271 (Fed. Cir. 2016)), providing personalized recommendations (*Personalized Media Commc’ns, LLC v. Amazon.Com, Inc.*, 161 F. Supp. 3d 325, 338 (D. Del. 2015), *aff’d sub nom.*, 671 F. App’x 777 (Fed. Cir. 2016)), targeting advertisements to particular users (*Morsa v. Facebook, Inc.*, 77 F. Supp. 3d 1007, 1014 (C.D. Cal. 2014), *aff’d*, 622 F. App’x 915 (Fed. Cir. 2015)), using persistent identifiers to implement targeted marketing (*Bridge & Post, Inc. v. Verizon Commc’ns, Inc.*, 778 F. App’x 882, 887 (Fed. Cir. 2019)), indexing data for considering historical usage information “while inputting data” (*BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1286 (Fed. Cir. 2018)), and “determining a price, using organizational and product group hierarchies” (*Versata Dev. Grp. v. SAP Am., Inc.*, 793 F.3d 1306, 1333 (Fed. Cir. 2015)).

Having concluded that claim 6 recites a judicial exception, i.e., an abstract idea, in determining whether the claim is directed to this abstract

---

<sup>4</sup> Our characterization of the claim is similar to the Examiner’s. But, we note that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). The Board’s “slight revision of its abstract idea analysis does not impact the patentability analysis.” *Id.* at 1241.

idea, we next consider whether the claim recites additional elements that integrate the judicial exception into a practical application.

*Integration into a Practical Application*

Under Step 2A, Prong 2 of the 2019 Revised Guidance (84 Fed. Reg. at 54), we look to whether the claim “appl[ies], rel[ies] on, or use[s] 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,” i.e., “integrates a judicial exception into a practical application.” Here, the additional elements recited in the independent claim beyond the abstract idea are “a server system”; “a multi-sourced consumer demographic compilation database”; “a segmentation database”; “data sets”; “an index table”; “an audience recommendation table”; “a digital storage medium”; “a processor”; and “a remote client device” — elements that, as the Examiner observes (*see* Final Act. 5; Ans. 5–6), are described in the Specification as generic components. For example, the Specification describes the multi-sourced compilation database as a generic database with links and cites to similar databases patented as early as 2000. Spec. ¶ 23. Similarly, the Specification does not discuss the segmentation database, data sets, and tables as anything other than generic databases and tables. *See id.* ¶¶ 24–26. And, the Specification provides for a generic server system, storage medium, processor, and device. *Id.* ¶¶ 31 (describing a system with generic components), 32 (describing a general purpose processor). We find no indication in the Specification, nor does the Appellant direct us to any indication, that the operations recited in claim 6 require any specialized computer hardware or other inventive computer components, i.e., a particular machine, invoke any asserted

inventive programming, or that the claimed invention is implemented using other than generic computer components to perform the generically claimed 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.”).

The Appellant contends that “[j]ust as in *Enfish*, the applicant’s invention is directed to specific structural limitations of the software databases and tables used to implement the invention, which interact in a novel way to solve the problem addressed by the inventors.” Appeal Br. 14–15; *see also id.* at 16–18, Reply Br. 1–2.<sup>5</sup> When viewed through the lens of the 2019 Revised Guidance, the Appellant contends that under Prong Two, the elements of the claim integrate the abstract idea into a practical application because the combination of the elements “reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field.” 84 Fed. Reg. at 55. We disagree.

In *Enfish*, the court held that the focus of the claims was to “a specific improvement to the way computers operate, embodied in the self-referential table.” 822 F.3d at 1336. Specifically, “the claims [were] not simply directed to *any* form of storing tabular data, but instead [were] specifically directed to a *self-referential* table for a computer database.” *Id.* at 1337. The Specification provided that “the self-referential table function[ed] differently than conventional database structures” (*id.* at 1337) and improved “the way a computer stores and retrieves data in memory” (*id.* at 1339).

---

<sup>5</sup> We note that the Appellant’s arguments regarding claim 1 (Reply Br. 1–2) are not considered as claim 1 is not pending in this appeal.

Here, however, the claim organizes information using generic tables and does not use or create an unconventional database structure. The focus of the claim is unrelated to how databases and tables function. Under the claimed method, information accessed by a server into a database is used to create and store tables whose data are searched for matches to user input, and presenting the results of that analysis. The Appellant does not purport to have invented the claimed database or tables. Rather, the Specification is clear that such databases and tables predated the claimed invention. *See* Spec. ¶ 23 (citing patents issues in 2000, 2003, and 2004); *see also BSG Tech*, 899 F.3d at 1286 (“BSG Tech does not purport to have invented database structures that allow database users to input item data as a series of parameters and values. The ‘699 specification makes clear that such databases predate the claimed invention.”). The claim does not recite any improvement to the way in which the database and tables store or organize information analogous to the self-referential table in *Enfish*. Although the inclusion of data from various sources in the database and organization of the data into different tables might improve the quality and usefulness of the information in the database and tables, “an improvement to the information stored by a database [or table] is not equivalent to an improvement in the database’s [or table’s] functionality.” *Id.* at 1288. The claimed invention results in a faster output than a manual process, but the tables and database serve in their ordinary capacities of storing and organizing information. *See id.* At best, this establishes that the claimed invention provides an improved analytical way, i.e., an improved abstract idea, for use in providing data of recommendations of an audience for marketing messages, using conventional components. Yet, as the court expressly recognized in *Enfish*,

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. The alleged advantages that the Appellant touts do not concern an improvement to computer capabilities, but instead relate to an alleged improvement in a method of providing recommendations for better marketing — a process in which computer components are used as tools in their ordinary capacities.

In order for the addition of a machine to impose a meaningful limit on the scope of a claim, it must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for performing calculations.

*Versata*, 793 F.3d at 1335 (quoting *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010)).

Further, the Appellant does not specify what problem is being addressed by the inventors (*see* Appeal Br. 15–17), but notes that integration of disjointed information was “performed by hand, or in the head of the user,” which “increases the cost of delivering the solution, and reduces its speed and accuracy” (*id.* at 17; *see also id.* at 18). However, high costs, slower speed, and less accuracy are not problems specifically arising in the realm of computer networks (*see DDR Holdings*, 773 F.3d at 1257), but ones that existed prior to the Internet. Moreover, the purported solution of “hardware and structural software components” (Appeal Br. 16; *see also id.* at 14–15) is not rooted in computer technology (*see DDR Holdings*, 773 F.3d at 1257). Rather, this purported solution requires the use of a generic server, database, tables, storage medium, processor, and user device operating in their ordinary and conventional capacities. *See supra*. As

discussed above, there is no claimed specific asserted improvement in computer capabilities. Any improvement to the conventional way of addressing the problem “at least in part, by hand” (Appeal Br. 16; *see also id.* at 17) lies in the analysis for providing a recommendation, an improvement in the abstract idea itself, not to any technological improvement. *See BSG Tech*, 899 F.3d at 1287–88. As such, we determine that the additional elements do not reflect an improvement in the functioning of a computer or to technology and do not integrate the abstract idea into a practical application.

Thus, we are not persuaded of error in the Examiner’s determination that claim 6 is directed to an abstract idea.

***Step Two of the Mayo/Alice Framework***

Under the second step in the *Alice* framework (corresponding to Step 2B of the 2019 Revised Guidance), we find supported the Examiner’s determination that the claim’s limitations, taken individually or as an ordered combination, do not amount to significantly more than the judicial exception. *See* Final Act. 4–5; *see also* Ans. 5–6.

The Appellant contends that the claim is similar to those of *Amdocs Ltd. v. Openet Telecom Inc.*, 841 F.3d 1288, 1301 (Fed. Cir. 2016) because “[t]he claimed invention ‘purposefully arranges the components’ to achieve the stated technological solution.” Appeal Br. 19. Specifically, the Appellant argues that the claim’s

architectural components, including the multi-sourced consumer demographic compilation database, the two types of segmentation databases, the index table, and the audience recommendation table, enable the system to provide a result in moments where before the previous method for solving this

problem requiring human intervention called for vastly greater amounts of time.

*Id.* at 20. The Appellant argues that the “very specific types of databases and tables that, when working together in an ordered combination, result in an unconventional solution to the problem addressed by the invention.” *Id.*

In *Amdocs*, the Federal Circuit held the claim was patent eligible because the claim entailed an unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases). Although the solution required generic components, the court adopted the district court’s interpretation of the claim term “enhance,” stating, it approved “reading the ‘in a distributed fashion’ and the ‘close to the source’ of network information requirements into the term ‘enhance,’” and determined that “the claim’s enhancing limitation necessarily requires that these generic components operate in an unconventional manner to achieve an improvement in computer functionality” and that the “enhancing limitation depends not only upon the invention’s distributed architecture, but also depends upon the network devices and gatherers — even though these may be generic — working together in a distributed manner.” *Amdocs*, 841 F.3d at 1300–01. Here, there is no similar evidence that the “distributed architecture” of a server, database, tables, processor, and device is comparable to that in *Amdocs* or otherwise establish that these components operate in an unconventional manner. And, for reasons discussed above under Step 1, we do not agree with the Appellant’s contention that the “very specific types of databases and tables that, when working together in an ordered combination, result in an unconventional solution to the problem addressed by the invention.” Appeal Br. 20.

The Appellant also contends that “the Examiner has alleged in a conclusory fashion that the claim elements are well-understood, routine, and conventional, but provides no evidence on this point” (Appeal Br. 21), and thus “has not met the burden of showing that the invention lacks ‘significantly more’” (*id.* at 22). *See also* Reply Br. 3–4. We are not persuaded of Examiner error by this argument.

The Examiner cites to the Specification and to the MPEP as support for the claimed components being conventional and for the claimed functions being well-understood, routine, and conventional. *See* Ans. 5–6 (citing Spec. ¶ 32, MPEP § 2106.05(d). In doing so, the Examiner followed “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP Inc.*[, 881 F.3d 1360 (Fed. Cir. 2018)],” USPTO Memorandum, Robert W. Bahr, Deputy Commissioner for Patent Examination Policy, April 19, 2018 (the “*Berkheimer* Memo”).

The court in *Berkheimer* held that “[t]he patent eligibility inquiry may contain underlying issues of fact.” *Berkheimer*, 881 F.3d at 1365 (quoting *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016) (“The § 101 inquiry ‘*may* contain underlying factual issues.”)). But, the court also held that “[w]hen 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.” *Id.* at 1368 (emphasis added). This qualification has been subsequently reiterated.

If there is a genuine dispute of material fact, Rule 56 requires that summary judgment be denied. In *Berkheimer*, there was such a genuine dispute for claims 4–7, but not for claims 1–3 and 9. . . . [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.

*Berkheimer v. HP Inc.*, 890 F.3d 1369, 1371–73 (Fed. Cir. 2018) (Order, On Petition for rehearing en banc, May 31, 2018) (Moore, J., concurring); *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.”). Here, the Specification indisputably shows the claimed server, database, tables, storage medium, processor, and device were conventional at the time of filing. *See supra*; Spec. ¶¶ 23, 31, 32, Fig. 8. Accordingly, based on the Appellant’s description, we find these devices to be well-understood, routine, or conventional components.<sup>6</sup>

We note that the claim simply recites the functional results to be achieved by a server. The claim “provides only a result-oriented solution[] with insufficient detail for how a computer accomplishes it. Our law

---

<sup>6</sup> The Appellant’s argument regarding a “normative database” claimed in claim 1 (Reply Br. 2–4) is not considered because claim 1 is withdrawn and not pending in this appeal and neither claim 1 nor claim 6 recites any such limitation. Further, the Specification contains no instance of the term “normative database.”

demands more.” *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017) (“*Capital One*”). Taking the claimed elements separately, the functions performed by the server are purely conventional. The claimed server operates in its ordinary and conventional capacity to perform the well-understood, routine, and conventional functions of accessing data, organizing the data into tables, storing the tables, receiving data, searching the tables for a match to received data, and sending the results. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (gathering, sending, monitoring, analyzing, selecting, and presenting information does not transform the abstract process into a patent-eligible invention); *BSG Tech*, 899 F.3d at 1284, 1290–91 (providing a database with a specific structure, guiding a user to select an item, storing the item on the database, and displaying usage information and values did not transform the abstract idea into a patent-eligible invention); *and Versata*, 793 F.3d at 1334 (arranging a hierarchy of organizational and product groups, storing information, retrieving applicable information, sorting information, eliminating information, and determining the price are conventional functions).

Considered as an ordered combination, the components of the Appellant’s claim add nothing that is not already present when the steps are considered separately. The sequence of accessing, organizing, receiving, and matching/analyzing data and sending the results of the match/analysis is equally generic and conventional or otherwise held to be abstract. *See Elec. Power*, 830 F.3d at 1354–56 (holding that the sequence of receiving, detecting, analyzing, displaying, accumulating, updating, and deriving data was abstract); *BSG Tech*, 899 F.3d at 1284, 1290–91 (the combination of

providing a database with a specific structure, guiding a user to select an item, storing the item on the database, and displaying usage information and values lacked an inventive concept); *and Versata*, 793 F.3d at 1334 (the ordered combination of arranging a hierarchy of organizational and product groups, storing information, retrieving applicable information, sorting information, eliminating information, and determining the price adds nothing to transform the abstract idea into a patent-eligible invention).

The Appellant also argues that “the invention is novel and nonobvious; while it is possible that something could lack novelty but still be unconventional (if, for example, the prior art defeating novelty were not well-known), but it is unclear how a novel solution could also be well-understood, routine, and conventional.” Appeal Br. 21. To the extent the Appellant argues that the claim is significantly more than the abstract idea because there are no prior art rejections, an abstract idea does not transform into an inventive concept just because the prior art does not disclose or suggest it. *See Mayo*, 566 U.S. at 78. “Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.” *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013). Indeed, “[t]he ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.” *Diehr*, 450 U.S. at 188–89; *see also Mayo*, 566 U.S. at 91 (rejecting “the Government’s invitation to substitute §§ 102, 103, and 112 inquiries for the better established inquiry under § 101”).

Thus, we are not persuaded of error in the Examiner's determination that the limitations of claim 6 do not transform the claims into significantly more than the abstract idea.

For at least the reasons above, we sustain the Examiner's rejection under 35 U.S.C. § 101 of claim 6 and of claims 7–9 and 20–23, the rejection of which stands with claim 6.

### CONCLUSION

The Examiner's decision to reject claims 6–9 and 20–23 under 35 U.S.C. § 101 is sustained.

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
6–9, 20–23	101	Eligibility	6–9, 20–23	

### TIME PERIOD FOR RESPONSE

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