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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ALEXANDER K. KOCOVES and JAMES MORRIS POLLACK

Appeal 2019-000165
Application 14/880,517
Technology Center 3600

Before KARA L. SZPONDOWSKI, SCOTT B. HOWARD, and
STEVEN M. AMUNDSON, *Administrative Patent Judges*.

AMUNDSON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ seeks our review under 35 U.S.C. § 134(a) from a final rejection of claims 1–10 and 21–30, i.e., all pending claims. 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. Appellant identifies the real party in interest as GLP & Associates, Inc. Appeal Br. 2.

STATEMENT OF THE CASE

The Invention

According to the Specification, the invention relates to “techniques for generating investment service recommendations.” Spec. ¶ 2.² The Specification explains that the invention endeavors to “automatically generat[e] . . . one or more investment service recommendations for the prospective enrollee based on” an “investment profile” and “based on a predicted performance of” a “defined contribution plan.” *Id.* ¶ 5. The investment service recommendations should “generat[e] additional post-retirement income in order to meet a goal of the prospective enrollee.” *Id.*

Exemplary Claim

Independent claim 1 exemplifies the claims at issue and reads as follows (with formatting added for clarity):

1. A method for enabling users to access personalized information generated by an investment management services provider, the method comprising:

receiving, over a distributed computing network via a communication device of a server computer from a first computing device associated with the investment management services provider, financial information for a prospective enrollee in a retirement contribution plan;

² This decision uses the following abbreviations: “Spec.” for the Specification, filed October 12, 2015; “Final Act.” for the Final Office Action, mailed May 23, 2018; “Appeal Br.” for the Appeal Brief, filed July 9, 2018; “Ans.” for the Examiner’s Answer, mailed September 27, 2018; and “Reply Br.” for the Reply Brief, filed October 9, 2018.

in response to receiving the financial information, automatically:

generating, by the server computer based on the received financial information, a personalized investment profile for the prospective enrollee,

generating, by the server computer, an interactive dashboard associated with the personalized investment profile, and

transmitting, from the server computer over the distributed computing network to a second computing device associated with the prospective enrollee, an invitation to access the interactive dashboard;

receiving, at the server computer over the distributed computing network from the second computing device, a response to the invitation, the response indicating a request to access the interactive dashboard; and

in response to receiving the request to access the interactive dashboard, automatically outputting, from the server computer over the distributed computing network to the second computing device, the interactive dashboard configured to

receive from the prospective enrollee inputs to view the personalized investment profile and manipulate data associated with the personalized investment profile, and to

generate, in real time, new investment service recommendations based on the received inputs.

Appeal Br. A1 (Claims App.).

The Rejection on Appeal

Claims 1–10 and 21–30 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 3–5.

ANALYSIS

We have reviewed the rejection in light of Appellant’s arguments that the Examiner erred. For the reasons explained below, we agree with the Examiner’s conclusion concerning ineligibility under § 101. We adopt the Examiner’s findings and reasoning in the Final Office Action and Answer. *See* Final Act. 3–10; Ans. 4–13. We provide the following to address and emphasize specific findings and arguments.

Introduction

The Patent Act defines patent-eligible subject matter broadly: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. In *Mayo* and *Alice*, the Supreme Court explained that § 101 “contains an important implicit exception” for laws of nature, natural phenomena, and abstract ideas. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012); *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014); *see Diamond v. Diehr*, 450 U.S. 175, 185 (1981). In *Mayo* and *Alice*, the Court set forth a two-step analytical framework for evaluating patent-eligible subject matter. *Mayo*, 566 U.S. at 77–80; *Alice*, 573 U.S. at 217–18.

Under *Mayo/Alice* step one, we “determine whether the claims at issue are directed to” a judicial exception, i.e., an abstract idea, a law of nature, or a natural phenomenon. *Alice*, 573 U.S. at 217. Step one involves looking at the “focus” of the claims at issue and their “character as a whole.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018).

In January 2019, the PTO issued revised guidance for determining whether claims are directed to a judicial exception. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Guidance”). The 2019 Guidance applies to the Board. *Id.* at 50–51, 57 n.42; *see* 35 U.S.C. § 3(a)(2)(A) (investing the Director with responsibility “for providing policy direction” for the PTO). Neither the Examiner nor Appellant had the benefit of the 2019 Guidance when presenting their respective positions concerning subject-matter eligibility.

The 2019 Guidance specifies two prongs for the analysis under *Mayo/Alice* step one (PTO step 2A). 84 Fed. Reg. at 54–55. Prong one requires evaluating “whether the claim recites a judicial exception, *i.e.*, an abstract idea, a law of nature, or a natural phenomenon.” *Id.* at 54. “If the claim does not recite a judicial exception, it is not directed to a judicial exception,” and it satisfies § 101. *Id.* “If the claim does recite a judicial exception, then it requires further analysis” under prong two. *Id.* Prong two requires evaluating “whether the claim as a whole integrates the recited judicial exception into a practical application of the exception.” *Id.* “When the exception is so integrated, then the claim is not directed to a judicial exception,” and it satisfies § 101. *Id.* “If the additional elements do not integrate the exception into a practical application, then the claim is directed to the judicial exception,” and it “requires further analysis” under *Mayo/Alice* step two (PTO step 2B). *Id.*

Under *Mayo/Alice* step two, we “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements” add enough to transform the “nature of the claim” into “significantly more” than the judicial exception. *Alice*, 573 U.S. at 217–18,

221–22 (quoting *Mayo*, 566 U.S. at 78–79). Step two involves the search for an “inventive concept.” *Alice*, 573 U.S. at 217–18, 221; *Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1366 (Fed. Cir. 2019). “[A]n inventive concept must be evident in the claims.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017).

Mayo/Alice Step One: PTO Step 2A Prong One

For *Mayo/Alice* step one, the Federal Circuit has noted 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). Here, the Examiner determines that the claims are directed to the abstract idea of “using a processor with a graphical user interface to receive financial information from a prospective enrollee (collecting information), generate a profile and an interactive dashboard for the enrollee to input data (analyzing information), and allow the enrollee to view new investment recommendations and manipulate data (displaying information).” Final Act. 3–4. The Examiner reasons that the claims resemble the patent-ineligible claims in *Electric Power* directed to “collecting information, analyzing it, . . . and displaying certain results of the collection and analysis.” *Id.* at 4 (citing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016)). The Examiner further reasons that the claims resemble the patent-ineligible claims in *Capital One* directed to “collecting, displaying, and manipulating data.” *Id.* (citing *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332 (Fed. Cir. 2017) (“*Capital One*”). The Examiner also reasons that the claims resemble the patent-ineligible claims in *Smart Systems Innovations* directed to the “collection, storage, and recognition of

data.” *Id.* (citing *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364 (Fed. Cir. 2017)).

Appellant disputes that independent claims 1 and 21 are directed to an abstract idea. *See* Appeal Br. 10–17; Reply Br. 3–9. Specifically, Appellant asserts that the Examiner “read[s] out the vast majority of the limitations” set forth in the claims. Appeal Br. 10; *see* Reply Br. 2. According to Appellant, the claims “do not merely recite collecting information, analyzing information, and displaying information.” Appeal Br. 10.

We disagree that the Examiner errs under *Mayo/Alice* step one. In determining that the claims are directed to an abstract idea, the Examiner accurately assesses the “focus” of the claims and their “character as a whole.” *See* Final Act. 3–4; *see also SAP Am.*, 898 F.3d at 1167.

In addition, we determine that the claims recite abstract ideas falling within one of the three groupings of abstract ideas specified in the 2019 Guidance, i.e., mental processes. *See* 84 Fed. Reg. at 51–52. The Guidance describes “mental processes” as “concepts [practically] performed in the human mind,” such as “an observation, evaluation, judgment, [or] opinion.” *Id.* at 52 (footnote omitted). As explained below, each independent claim recites “mental processes” in various limitations.

For instance, claim 1 recites the following limitations:

- “in response to receiving the financial information, . . . generating . . . based on the received financial information, a personalized investment profile for the prospective enrollee”;
- “transmitting . . . an invitation to access [an] interactive dashboard” with the personalized investment profile;

- “receiving . . . a response to the invitation, the response indicating a request to access the interactive dashboard”;
and
- “generate . . . new investment service recommendations based on the received inputs.”

Appeal Br. A1. Claim 21 recites similar limitations. *Id.* at A3–A4.

The above-identified limitations encompass evaluations practically performed by a human mentally or with pen and paper. For instance, a financial advisor could receive financial information from a prospective client. After receiving the financial information, the financial advisor could generate, e.g., with pen and paper, a personalized investment profile for the prospective client. After generating the personalized investment profile, the financial advisor could invite, e.g., by telephone or email, the prospective client to review the personalized investment profile. After receiving the invitation, the prospective client could respond, e.g., by telephone or email, with a request to review the personalized investment profile. After reviewing the personalized investment profile, the prospective client could provide additional financial information to the financial advisor. And if the prospective client provides additional financial information, the financial advisor could generate, e.g., with pen and paper, investment recommendations for the prospective client based on the financial information received from the prospective client.

For these reasons, the above-identified limitations encompass evaluations practically performed by a human mentally or with pen and paper. The 2019 Guidance identifies an evaluation practically performed by a human mentally or with pen and paper as a mental process, and thus an abstract idea. 84 Fed. Reg. at 52 & nn.14–15; *see also Intellectual Ventures*

I LLC v. Symantec Corp., 838 F.3d 1307, 1318 (Fed. Cir. 2016) (“*Symantec*”) (“[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.”).

Mayo/Alice Step One: PTO Step 2A Prong Two

Because we determine that each independent claim recites abstract ideas, we consider whether each claim as a whole integrates the recited abstract ideas into a practical application. *See* 84 Fed. Reg. at 54–55. “Only when a claim recites a judicial exception and fails to integrate the exception into a practical application, is the claim ‘directed to’ a judicial exception” *Id.* at 51.

As additional elements, the independent claims recite computer-system components. Appeal Br. A1, A3–A4. Specifically, method claim 1 recites (1) a “server computer” with a “communication device”; (2) a “first computing device”; (3) a “second computing device”; and (4) a “distributed computing network.” *Id.* at A1. Similarly, apparatus claim 21 recites (1) a “server computer” with a “communication device,” a “memory device,” and a “processor”; and (2) a “distributed computing network.” *Id.* at A3–A4.

The independent claims also recite data-collecting and data-presenting limitations. *Id.* at A1, A3–A4. For instance, claim 1 recites the following data-collecting and data-presenting limitations:

- “receiving . . . financial information for a prospective enrollee in a retirement contribution plan”;
- “automatically . . . generating . . . an interactive dashboard associated with the personalized investment profile”;
- “in response to receiving the request to access the interactive dashboard, automatically outputting . . . the

interactive dashboard configured to” receive and present information; and

- “receive . . . inputs to view the personalized investment profile and manipulate data associated with the personalized investment profile.”

Appeal Br. A1. Claim 21 recites similar data-collecting and data-presenting limitations. *Id.* at A3–A4.

We determine that each independent claim as a whole does not integrate the recited abstract ideas into a practical application because the additional elements do not impose meaningful limits on the abstract ideas. *See* 84 Fed. Reg. at 53–54; *see also* Final Act. 4–5; Ans. 4–8, 10–11, 13. The claimed computer-system components constitute generic computer-system components that perform generic computer functions. *See* Final Act. 4–5 (citing Spec. ¶¶ 22–26); *see also* Spec. ¶¶ 22–26, 78–80, 82–84. Further, the data-collecting and data-presenting limitations constitute insignificant extra-solution activity. *See, e.g., Mayo*, 566 U.S. at 79; *Bilski v. Kappos*, 561 U.S. 593, 611–12 (2010); *Apple*, 842 F.3d at 1241–42; *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363–64 (Fed. Cir. 2015); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011); *In re Grams*, 888 F.2d 835, 839–40 (Fed. Cir. 1989).

As an example of insignificant extra-solution activity, in *Mayo* the Supreme Court decided that measuring metabolite levels for later analysis constituted purely “conventional or obvious” pre-solution activity. *Mayo*, 566 U.S. at 79. Similarly, the Federal Circuit has held that mere data-gathering steps “cannot make an otherwise nonstatutory claim statutory.” *CyberSource*, 654 F.3d at 1370 (quoting *Grams*, 888 F.2d at 840). The

Federal Circuit has also held that (1) presenting offers to potential customers and (2) gathering statistics concerning customer responses were “conventional data-gathering activities that d[id] not make the claims patent eligible.” *OIP Techs.*, 788 F.3d at 1363–64. Consistent with those decisions, the Manual of Patent Examining Procedure (“MPEP”) identifies “gathering data” as an example of insignificant pre-solution activity. MPEP § 2106.05(g) (9th ed. rev. 08.2017 Jan. 2018).

Here, the data-collecting limitations amount to mere data-gathering steps and require nothing unconventional or significant. *See Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067 (Fed. Cir. 2011) (analogizing “data gathering” to “insignificant extra-solution activity”). For example, the Specification broadly provides that “the server 104 can receive user information.” Spec. ¶ 27. The Specification also provides that “the salesperson 116 can capture the required information for the prospective enrollee 120 at the computing device 108, which can then be uploaded to the server 104 via the network 112.” *Id.* ¶ 64. Hence, the data-collecting limitations do not help integrate the recited abstract ideas into a practical application.

Further, in *Flook* the Supreme Court decided that adjusting an alarm limit according to a mathematical formula was “post-solution activity” and insufficient to confer eligibility. *Parker v. Flook*, 437 U.S. 584, 590, 596–98 (1978). Similarly, the Federal Circuit has held that printing menu information constituted insignificant post-solution activity. *Apple*, 842 F.3d at 1241–42. Consistent with those decisions, the MPEP identifies printing “to output a report” as an example of insignificant post-solution activity. MPEP § 2106.05(g).

Here, the data-presenting limitations require generating and outputting an “interactive dashboard associated with the personalized investment profile.” Appeal Br. A1, A3–A4. The data-presenting limitations require no particular presentation tool and nothing unconventional or significant. Just as printing menu information in *Apple* constituted insignificant post-solution activity, generating and outputting a generic “interactive dashboard” here constitutes insignificant post-solution activity. See Final Act. 4. Consistent with this, the Specification explains that “the interactive dashboard may be implemented via a website or collection of websites.” Spec. ¶ 67. Hence, the data-presenting limitations do not help integrate the recited abstract ideas into a practical application.

Appellant contends that the claims “are directed to a particular improvement in a distributed computer system’s use and functionality to solve particular problems associated with a niche industry.” Appeal Br. 10–13 (citing Spec. ¶¶ 4, 64, 72); see Reply Br. 6.

Appellant’s contention does not persuade us of Examiner error. “[L]imiting an abstract idea to one field of use” does not impart patent eligibility. See *Bilski*, 561 U.S. at 612; see also *Flook*, 437 U.S. at 589–90; *SAP Am.*, 898 F.3d at 1169; *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016). A “claim is not patent eligible merely because it applies an abstract idea in a narrow way.” *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1287 (Fed. Cir. 2018).

Appellant contends that “the claimed systems and methods help to simplify, expedite, and streamline the process of creating, manipulating, and maintaining an investment retirement plan.” Reply Br. 4; see *id.* at 6, 8–9;

see also Appeal Br. 14. Appellant characterizes that effort as “[h]istorically a very tedious and convoluted process.” Reply Br. 4.

“But relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.” *OIP Techs.*, 788 F.3d at 1363. Moreover, the “mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology.” *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017). Further, the Examiner correctly finds that the claims (1) “are not directed to a new type of processor, a communication device, or a system memory”; (2) do not improve “computer-related technology”; and (3) do not “provide a method for processing data that improves existing technological processes.” Final Act. 5, 9; Ans. 7, 9–10, 13. As the Examiner properly reasons, the claims focus “on a certain independently abstract idea that uses computers as tools.” Final Act. 5; Ans. 7, 9–10.

Appellant analogizes the claims here to the claims in the following cases: *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018); *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016); *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016); *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253 (Fed. Cir. 2017); *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016); and *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). *See, e.g.*, Appeal Br. 10–13; Reply Br. 3–6. But the claims here do not resemble the claims in any of those cases.

In *Core Wireless*, the “claims recite[d] a specific improvement over prior systems,” i.e., a “particular manner of summarizing and presenting information in electronic devices.” *Core Wireless*, 880 F.3d at 1362–63. The Federal Circuit decided that the claims satisfied § 101 under *Mayo/Alice* step one because the “invention improve[d] the efficiency of using the electronic device.” *Id.* at 1363.

Unlike the claims in *Core Wireless*, the claims here do not improve the efficiency of using a computer or another device. *See* Ans. 7. Instead, the claims focus on improving investments for “a prospective enrollee in a retirement contribution plan,” not the functioning of a computer or another device. *See* Appeal Br. A1, A3–A4; *see also* *Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1090–91 (Fed. Cir. 2019) (“*Trading Techs. I*”); *Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1378, 1383–84 (Fed. Cir. 2019) (“*Trading Techs. II*”).

The Examiner correctly determines that the “claims amount to no more than utilizing a processor connecting to a communication device and a memory device over a distributed computing network to invite a user to access its graphical user interface to send, receive, and manipulate data.” Final Act. 5, 9; *see* Ans. 6–7, 9–11, 13. As discussed above, the claims use generic computer-system components to automate manual processes, i.e., processes that were “[h]istorically . . . very tedious and convoluted.” Reply Br. 4; *see id.* at 6, 8–9; *see* Appeal Br. 14. Here, “the purported advance ‘is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions.’” *Trading Techs. II*, 921 F.3d at 1385 (quoting *Elec. Power*, 830 F.3d at 1354).

In *McRO*, the claims recited a “specific . . . improvement in computer animation” using “unconventional rules” that related “sub-sequences of phonemes, timings, and morph weight sets” to automatically animate lip synchronization and facial expressions for three-dimensional characters that only human animators could previously produce. *McRO*, 837 F.3d at 1302–03, 1307–08, 1313–15. The Federal Circuit reasoned that “the incorporation of the claimed rules” improved an existing technological process. *Id.* at 1314.

Similarly, in *BASCOM*, the claims recited a “specific method of filtering Internet content” requiring “the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user.” *BASCOM*, 827 F.3d at 1345–46, 1350. The Federal Circuit reasoned that the claims covered “a technology-based solution . . . to filter content on the Internet that overcomes existing problems with other Internet filtering systems” and “improve[s] an existing technological process.” *Id.* at 1351 (citing *Alice*, 573 U.S. at 223); *see Alice*, 573 U.S. at 223 (explaining that “the claims in *Diehr* were patent eligible because they improved an existing technological process”).

Unlike the claims in *McRO* and *BASCOM*, the claims here do not cover a technology-based solution that improves an existing technological process. *See* Final Act. 4–5, Ans. 9. As discussed above, the Examiner correctly finds that the claims (1) “are not directed to a new type of processor, a communication device, or a system memory”; (2) do not improve “computer-related technology”; and (3) do not “provide a method for processing data that improves existing technological processes.” Final

Act. 5, 9; Ans. 7, 9–10, 13; *see Trading Techs. II*, 921 F.3d at 1383; *Credit Acceptance*, 859 F.3d at 1054–56.

As the Examiner explains, the claims recite “generic computer elements” that perform conventional data-processing steps, e.g., “receiving financial information,” “generating investment profile and a customized dashboard,” “transmitting an email with a hyperlink,” and “outputting the dashboard website.” Final Act. 4; *see* Ans. 4–6, 13 (citing Spec. ¶¶ 22, 25, 30, 82–83). As the Examiner also explains, the “claims do not lay out a particular set of rules for aggregating, analyzing investment information, and displaying the new investment recommendations.” Ans. 11.

In *Enfish*, the Federal Circuit decided that the claims satisfied § 101 under *Mayo/Alice* step one because they recited a “specific improvement to the way computers operate,” i.e., an improved database configuration that permitted faster and more efficient searching. *Enfish*, 822 F.3d at 1330–33, 1336, 1339. Further, the Federal Circuit has explained that the claims in *Enfish* “did more than allow computers to perform familiar tasks with greater speed and efficiency” and “actually permitted users to launch and construct databases in a new way.” *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018); *see also Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017) (explaining that the claims in *Enfish* “focused on an improvement to computer functionality itself”).

Similarly, in *Visual Memory*, the Federal Circuit decided that the claims satisfied § 101 under *Mayo/Alice* step one because they were “directed to an improved computer memory system” that “enabl[ed] interoperability with multiple different processors” and “obviate[d] the need

to design a separate memory system for each [different] type of processor.”
Visual Memory, 867 F.3d at 1259–60, 1262.

Unlike the claims in *Enfish* and *Visual Memory*, the claims here do not recite an improvement to computer functionality. *See* Ans. 6–7. For instance, the claims do not recite an advance in hardware or software that causes a processor itself or a memory itself to operate faster or more efficiently. As the Examiner correctly finds, the claims “do not provide a memory system solution or improvement” and “do not improve a database structure.” *Id.* at 6–7. Instead, the claims “utilize a processor connecting to a communication device and a memory device over a distributed computing network to invite a prospective enrollee to send in financial information, receive a hyperlink via email to access [an] investment profile and customized dashboard so to view and manipulate new investment recommendations.” *Id.* at 7, 9–10. Further, the claims employ generic computer-system components, e.g., a “server computer,” a “computing device,” and a “distributed computing network,” in their ordinary capacities to communicate, manipulate, and display data. *See* Appeal Br. A1, A3–A4; Spec. ¶¶ 22–26, 78–80, 82–84; *see also Alice*, 573 U.S. at 226.

In *Amdocs*, the patents concerned network components “arrayed in a distributed architecture” that “collect[ed] and process[ed] data close to its source,” and thus enabled “load distribution” and reduced network congestion. *Amdocs*, 841 F.3d at 1291–92, 1300, 1303, 1306. The Federal Circuit decided that the claims satisfied § 101 under *Mayo/Alice* step two because they either (1) “entail[ed] an unconventional technological solution . . . to a technological problem” that required generic computer components to “operate in an unconventional manner to achieve an improvement in

computer functionality” or (2) “recite[d] a technological solution to a technological problem specific to computer networks—an unconventional solution that was an improvement over the prior art.” *Id.* at 1299–1306.

Unlike the claims in *Amdocs*, the claims here do not require generic components to “operate in an unconventional manner to achieve an improvement in computer functionality.” For instance, the claims do not require an unconventional arrangement of components or an uncommon network configuration. As the Examiner properly reasons, the claims “merely use[] the existing Internet” and “its advantages,” such as “[e]fficient communication” and “distribution of data,” in a “conventional and predictable way.” Final Act. 9–10; Ans. 13.

In *DDR Holdings*, the Federal Circuit determined that certain claims satisfied § 101 under *Mayo/Alice* step two because “the claimed solution amount[ed] to an inventive concept for resolving [a] particular Internet-centric problem,” i.e., a challenge unique to the Internet. *DDR Holdings*, 773 F.3d at 1257–59; see *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (noting that “[i]n *DDR Holdings*, we held that claims ‘directed to systems and methods of generating a composite web page that combines certain visual elements of a “host” website with content of a third-party merchant’ contained the requisite inventive concept”). The Federal Circuit explained that the patent-eligible claims specified “how interactions with the Internet are manipulated to yield a desired result . . . that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink.” *DDR Holdings*, 773 F.3d at 1258. The court reasoned that those claims recited a technological solution

“necessarily rooted in computer technology” that addressed a “problem specifically arising in the realm of computer networks.” *Id.* at 1257.

According to the Federal Circuit, “*DDR Holdings* does not apply when . . . the asserted claims do not ‘attempt to solve a challenge particular to the Internet.’” *Smart Sys.*, 873 F.3d at 1375 (quoting *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016)). Unlike the patent-eligible claims in *DDR Holdings*, the claims here do not attempt to solve a challenge particular to the Internet. *See* Appeal Br. A1, A3–A4; *see also* Final Act. 4–5, 7–8, 10; Ans. 9–10.

The 2019 Guidance identifies exemplary considerations indicating that additional elements in claims “may have integrated the [judicial] exception into a practical application.” 84 Fed. Reg. at 55 & nn.25–29 (citing MPEP §§ 2106.05(a)–(c), 2106.05(e)). As the above analysis indicates, we have evaluated Appellant’s arguments in light of those exemplary considerations. For the reasons discussed above, however, we determine that each independent claim as a whole does not integrate the recited abstract ideas into a practical application. Thus, each claim is directed to a judicial exception and does not satisfy § 101 under *Mayo/Alice* step one.

Mayo/Alice Step Two: PTO Step 2B

Because we determine that each independent claim is directed to a judicial exception, we “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements” add enough to transform the “nature of the claim” into “significantly more” than the judicial exception. *See Alice*, 573 U.S. at 217–18, 221–22 (quoting *Mayo*, 566 U.S. at 78–79). Under *Mayo/Alice*

step two, we “look with more specificity at what the claim elements add, in order to determine ‘whether they identify an “inventive concept” in the application of the ineligible subject matter’ to which the claim is directed.” *Affinity Labs*, 838 F.3d at 1258 (quoting *Elec. Power*, 830 F.3d at 1353). An “inventive concept” requires more than “well-understood, routine, conventional activity already engaged in” by the relevant community. *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 (Fed. Cir. 2016) (quoting *Mayo*, 566 U.S. at 79–80). But a “non-conventional and non-generic arrangement of known, conventional pieces” may provide an “inventive concept” satisfying step two. *BASCOM*, 827 F.3d at 1350.

As discussed above, the independent claims recite the following computer-system components: a “server computer” with a “communication device,” a “memory device,” and a “processor”; a “first computing device”; a “second computing device”; and a “distributed computing network.” Appeal Br. A1, A3–A4. The Examiner correctly finds that the claimed computer-system components do not differ meaningfully from “components in general purpose computers.” Final Act. 4, 9; *see* Ans. 4–6, 8, 13 (citing Spec. ¶¶ 22, 25, 30, 82–83). Further, the Examiner correctly finds that the claimed computer-system components correspond to “generic computer elements” that “perform basic functions.” Final Act. 4, 9; Ans. 4. The Examiner identifies the “basic functions” as “send[ing], receiv[ing], and manipul[at] data” and as “collecting information,” “analyzing information,” and “displaying information.” Final Act. 3–4, 9; Ans. 4.

Consistent with the Examiner’s findings, the Specification describes the claimed computer-system components generically and evidences their conventional nature. *See, e.g.*, Spec. ¶¶ 22–26, 78–80, 82–84. As an

example, the Specification explains that a “server” may include “one or more suitable computing devices, each including one or more processors, operating in a parallel or distributed architecture.” *Id.* ¶ 22. As another example, the Specification explains that a “computing device” may include a “personal computing device,” such as “a desktop computer, a laptop computer, a tablet computer, a mobile phone, etc.” *Id.* In addition, the Specification states that a “network” may “include a local area network (LAN), a wide area network (WAN), e.g., the Internet, or a combination thereof” and may “comprise storage devices and computers that are communicatively coupled to dissimilar computers and storage devices.” *Id.* ¶¶ 22, 84.

Simply implementing an abstract idea using conventional machines or devices “add[s] nothing of substance.” *See Alice*, 573 U.S. at 226–27; *see also Mayo*, 566 U.S. at 84–85 (explaining that “simply implementing a mathematical principle on a physical machine” does not suffice for patent eligibility) (citing *Gottschalk v. Benson*, 409 U.S. 63, 64–65, 71 (1972)).

In addition, the claimed computer-system components operate to communicate, manipulate, and display data. Appeal Br. A1, A3–A4; *see* Final Act. 3–4, 9; Ans. 4. Court decisions have recognized that generic computer-system components operating to communicate, manipulate, and display data are well understood, routine, and conventional to a skilled artisan. *See, e.g., Alice*, 573 U.S. at 226–27; *SAP Am.*, 898 F.3d at 1164–65 & n.1, 1170; *Symantec*, 838 F.3d at 1316–20; *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1334 (Fed. Cir. 2015); *Ultramercial*, 772 F.3d at 715–16; *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014).

For example, the system claims in *Alice* recited a “data processing system” (e.g., a “server computer” with a “processor”) with a “communications controller” (e.g., a “communication device”) and a “data storage unit” (e.g., a “memory device”). *Alice*, 573 U.S. at 226. The Supreme Court decided that the system claims failed to satisfy § 101 because “[n]early every computer” includes those generic components for performing “basic calculation, storage, and transmission functions” and the system claims simply implemented the same abstract idea as the method claims. *Id.* at 226–27. The Court reasoned that (1) “the system claims are no different from the method claims in substance”; (2) “[t]he method claims recite the abstract idea implemented on a generic computer”; and (3) “the system claims recite a handful of generic computer components configured to implement the same idea.” *Id.* at 226.

Here, the claimed computer-system components perform “basic calculation, storage, and transmission functions” that nearly every computer-system performs. Appeal Br. A1, A3–A4; *see* Final Act. 4–5; Ans. 4–11, 13. For instance, nearly every computer system includes a “processor” for manipulating data, a “memory device” for storing data, and a “communication device” for transmitting data. Hence, those generic computer-system components do not satisfy the “inventive concept” requirement. *See, e.g., Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (holding that “generic computer components such as an ‘interface,’ ‘network,’ and ‘database’” did not satisfy the “inventive concept” requirement); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1095–96 (Fed. Cir. 2016) (describing the claimed “microprocessor” and “user interface” as “generic computer elements”);

Prism Techs. LLC v. T-Mobile USA, Inc., 696 F. App'x 1014, 1016–17 (Fed. Cir. 2017) (describing the claimed “authentication server,” “access server,” “Internet Protocol network,” “client computer device,” and “database” as “indisputably generic computer components”).

We reach a similar conclusion concerning the data-collecting and data-presenting limitations, e.g., the “receiving” and “outputting” limitations in claims 1 and 21. As discussed above, the data-collecting limitations amount to mere data-gathering steps and require nothing unconventional or significant. As also discussed above, the data-presenting limitations require no particular presentation tool and nothing unconventional or significant. Consequently, the claimed insignificant extra-solution activity does not satisfy the “inventive concept” requirement. *See, e.g., Mayo*, 566 U.S. at 79–80; *Flook*, 437 U.S. at 590; *Apple*, 842 F.3d at 1241–42; *OIP Techs.*, 788 F.3d at 1363–64; *CyberSource*, 654 F.3d at 1370.

Insofar as Appellant relies on the recited abstract ideas to satisfy the “inventive concept” requirement, Appellant wrongly does so. *See, e.g.,* Appeal Br. 10–14, 16–17; Reply Br. 3–9. A “claimed invention’s use of the ineligible concept,” e.g., an abstract idea, “cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *BSG Tech*, 899 F.3d at 1290 (Fed. Cir. 2018). “[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered” abstract idea “cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility.” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016).

Appellant asserts that the Examiner provides no “evidence” that the claims “use[] only ‘generic computer elements.’” Appeal Br. 12; Reply Br.

7–8. Appellant also asserts that the Examiner violates PTO guidance about *Berkheimer v. HP*.³ Appeal Br. 12.

That PTO guidance states that citations to court decisions may demonstrate “the well-understood, routine, conventional nature of the additional element(s).” Apr. 19, 2018 PTO Mem. 4.

As discussed above, court decisions have recognized that generic computer-system components operating to communicate, manipulate, and display data are well understood, routine, and conventional to a skilled artisan. *See, e.g., Alice*, 573 U.S. at 226–27; *SAP Am.*, 898 F.3d at 1164–65 & n.1, 1170; *Symantec*, 838 F.3d at 1316–20; *Versata*, 793 F.3d at 1334; *Ultramercial*, 772 F.3d at 715–16; *buySAFE*, 765 F.3d at 1355.

The Examiner has expressly identified claim limitations that use generic computer-system components to communicate, manipulate, and display data, i.e., perform basic functions. *See* Final Act. 3–5, 9; Ans. 4–11, 13. The Examiner has also explained how the Specification describes the claimed computer-system components generically and evidences their conventional nature. Ans. 8; *see, e.g.,* Spec. ¶¶ 22–26, 78–80, 82–84 (the server includes a suitable computing device that communicates with another computing device over a network, and the computing device includes “any suitable personal computing device (a desktop computer, a laptop computer, a tablet computer, a mobile phone, etc.) that includes a display” and the network includes “a local area network (LAN), a wide area network (WAN),

³ USPTO Memorandum, Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*) (Apr. 19, 2018).

e.g., the Internet, or a combination thereof”). Hence, we discern no error under *Mayo/Alice* step two.

Appellant argues that the claims “do not seek to preempt an abstract idea such that others cannot practice it.” Appeal Br. 15. Appellant similarly argues that the claims do not “‘tie up’ the generalized idea of managing and analyzing investment service data.” *Id.* at 16.

Appellant’s arguments do not persuade us of Examiner error. While preemption may denote patent ineligibility, its absence does not establish patent eligibility. *See FairWarning*, 839 F.3d at 1098. For claims covering a patent-ineligible concept, preemption concerns “are fully addressed and made moot” by an analysis under the *Mayo/Alice* framework. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

“Whether a combination of claim limitations supplies an inventive concept that renders a claim ‘significantly more’ than an abstract idea to which it is directed is a question of law.” *BSG Tech*, 899 F.3d at 1290. Given the claimed generic computer-system components that perform generic computer functions and the claimed insignificant extra-solution activity, we conclude that the combination of limitations in each independent claim does not supply an “inventive concept” that renders the claim “significantly more” than an abstract idea. Thus, each claim does not satisfy § 101 under *Mayo/Alice* step two.

Summary for the Independent Claims

For the reasons discussed above, each independent claim fails to satisfy § 101 under *Mayo/Alice* step one and step two. Hence, we sustain the § 101 rejection of the independent claims.

Dependent Claims 2–10 and 22–30

We also sustain the § 101 rejection of dependent claims 2–10 and 22–30 because Appellant does not argue eligibility separately for them. *See* Appeal Br. 17–18; Reply Br. 10; 37 C.F.R. § 41.37(c)(1)(iv).

CONCLUSION

We affirm the Examiner’s decision to reject claims 1–10 and 21–30.

In summary:

Claims Rejected	Basis	Affirmed	Reversed
1–10 and 21–30	§ 101	1–10 and 21–30	

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED