



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.
14/138,460	12/23/2013	Theresa Carrington	33466-1	8098
76656	7590	08/24/2020	EXAMINER	
Patent Docket Department Armstrong Teasdale LLP 7700 Forsyth Boulevard Suite 1800 St. Louis, MO 63105			SENSENG, SHAUN D	
			ART UNIT	PAPER NUMBER
			3629	
			NOTIFICATION DATE	DELIVERY MODE
			08/24/2020	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):

USpatents@armstrongteasdale.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THERESA CARRINGTON,
CHARLES GRADY, and TIMOTHY J. ERNST

Appeal 2019-003191
Application 14/138,460
Technology Center 3600

Before MAHSHID D. SAADAT, ST. JOHN COURTENAY III, 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 1–20, 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 (2018). Appellant identifies the real party in interest as The Blessing Basket Project. Appeal Br. 1.

STATEMENT OF THE CASE

The Invention

According to the Specification, the invention concerns “selecting applicants for participation in a program.” Spec. ¶¶ 1, 10.² The Specification explains that “many charitable organizations are not overly selective when choosing to whom they provide assistance” and that “such lack of selectivity can result a depletion of the organizations [sic] resources without achieving the mission.” *Id.* ¶ 12. The Specification also explains that “it is important to take the highest ranked applicants, the most likely to succeed,” because “[s]pace in charity programs is limited and resources are finite.” *Id.* ¶ 45. According to the Specification, however, “determining how to select participants in such a program can be extremely difficult and time consuming.” *Id.* ¶ 12. Hence, the invention endeavors to provide “a selection process to facilitate choosing participants who are most likely to succeed at a program that enables such participants to earn a wage and work their way out of poverty.” *Id.* ¶¶ 1, 10.

Exemplary Claim

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

1. A computer-implemented method for selecting participants from an applicant pool to participate in a program to exit poverty, said method implemented using a computer

² This decision uses the following abbreviations: “Spec.” for the Specification, filed December 23, 2013; “Final Act.” for the Final Office Action, mailed February 6, 2018; “Appeal Br.” for the Appeal Brief, filed September 5, 2018; “Ans.” for the Examiner’s Answer, mailed January 24, 2019; and “Reply Br.” for the Reply Brief, filed March 18, 2019.

device in communication with a memory, said method comprising:

storing, in the memory, a plurality of questions to ask each applicant currently living in poverty from a pool of applicants currently living in poverty based on the International Poverty Line as defined by the World Bank;

storing, in the memory, a plurality of values based on historical data,

wherein each value is associated with each of one or more potential answers for each question of the plurality of questions,

wherein the plurality of values are based on an applicant's chances of success in the program to exit poverty, and

wherein the historical data is based on past participation of applicants in the program;

for each applicant of the pool of applicants, the method comprises:

compiling, by the computing device, an income score based on current income of the applicant in relation to a current income for each of the applicants, an expenses score based on current expenses of the applicant, and an intangibles score based on intangible qualities of the applicant based on the applicant's answers to the plurality of questions and the plurality of values;

calculating, by the computing device, a likelihood of the applicant successfully participating in the program to exit poverty based on the income score, the expenses score, and the intangibles score;

calculating, by the computing device, the applicant's overall score based on the calculated likelihood of the applicant successfully participating in the program to exit poverty; and

determining, by the computing device, the applicant's ranking in comparison to the pool of applicants, based on each applicant's overall score; and outputting, by the computing device, the rankings of the applicants.

Appeal Br. 23–24 (Claims App.).

The Prior Art Supporting the Rejections on Appeal

As evidence of unpatentability under 35 U.S.C. § 103, the Examiner relies on the following prior art:

Stimac US 2003/0071852 A1 Apr. 17, 2003

Deyo US 2009/0164311 A1 June 25, 2009

Martin Ravallion, *World Bank's \$1.25/Day Poverty Measure - Countering the Latest Criticisms*, The World Bank (Jan. 2010) ("Ravallion")

The Rejections on Appeal

Claims 1–20 stand rejected under 35 U.S.C. § 112(a) for failing to comply with the written-description requirement. Final Act. 3.

Claims 1–20 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 3–5.

Claims 1–4, 6–11, 13–18, and 20 stand rejected under 35 U.S.C. § 103 as unpatentable over Stimac, Deyo, and Ravallion. Final Act. 6–14.

Claims 5, 12, and 19 stand rejected under 35 U.S.C. § 103 as unpatentable over Stimac, Deyo, Ravallion, and official notice. Final Act. 14–15.

ANALYSIS

We have reviewed the rejections in light of Appellant's arguments that the Examiner erred. For the reasons explained below, we agree with the Examiner's determinations under § 101 and § 112(a) but disagree with the

Examiner’s determinations under § 103. We adopt the Examiner’s findings and reasoning for the § 101 and § 112(a) rejections in the Final Office Action and Answer. *See* Final Act. 3–5; Ans. 4–10. We add the following to address and emphasize specific findings and arguments.

The § 112(a) Rejection of Claims 1–20

Among other things, § 112(a) requires that the specification “contain a written description of the invention.” 35 U.S.C. § 112(a). The written-description requirement serves to “clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (alteration in original) (quoting *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991)); *see Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1344 (Fed. Cir. 2016).

“[T]he test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad*, 598 F.3d at 1351; *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1296 (Fed. Cir. 2017). The “test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art.” *Ariad*, 598 F.3d at 1351. While the written-description requirement “does not demand any particular form of disclosure” or “that the specification recite the claimed invention *in haec verba*, a description that merely renders the invention obvious does not satisfy the requirement.” *Id.* at 1352. The analysis for disclosure sufficiency may consider “such descriptive means as words, structures, figures, diagrams, formulas, etc.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

Here, independent claims 1, 8, and 15 each recite “questions to ask each applicant currently living in poverty from a pool of applicants currently living in poverty based on the International Poverty Line as defined by the World Bank.” Appeal Br. 23–26. After application filing, Appellant amended each claim to add the phrase “based on the International Poverty Line as defined by the World Bank.” Nov. 15, 2017 Amdt 3–7.

The Examiner finds that the “disclosure as originally filed” did not include the phrase “based on the International Poverty Line as defined by the World Bank.” Final Act. 3. Thus, the Examiner determines that the independent claims and their respective dependent claims lack written-description support in the “disclosure as originally filed.” *Id.*; *see* Ans. 5–6.

Appellant argues that the Examiner erred in rejecting the claims under § 112(a) because those skilled in the art would have understood that “the term poverty is based on the International Poverty Line as defined by the World Bank” when “dealing with a program to exit poverty.” Appeal Br. 8; *see* Reply Br. 3–4. Appellant contends that “if the definition of poverty, is defined by those having skill in the art, as being based on the International Poverty Line as set by the World Bank, then the use of the phrase [in] the present claims would be inherently supported” by the Specification. Appeal Br. 8; Reply Br. 4.

To support its contention concerning inherent disclosure, Appellant provides declarations from Tanja Gabriele Faller, Daniel Zoltani, Sel Dibooglu, and Theresa Carrington. *See* Appeal Br. Evid. App. Each declarant states that “one having ordinary skill in the art of assisting those living in poverty would use the definition of poverty as defined by the World Bank, which defines someone living in poverty as an individual living on

less than the International Poverty Line.” Faller Decl. ¶ 7; Zoltani Decl. ¶ 5; Dibooglu Decl. ¶ 6; Carrington Decl. ¶ 7.

We disagree that the Examiner erred in rejecting the claims under § 112(a). The phrase “based on the International Poverty Line as defined by the World Bank” does not appear in the Specification as filed. The Specification as filed does not discuss the International Poverty Line or even mention the World Bank.

Entities other than the World Bank define poverty differently than the World Bank. *See, e.g.*, 85 Fed. Reg. 3060, 3060–61 (Jan. 17, 2020); 84 Fed. Reg. 1167, 1168 (Feb. 1, 2019); 83 Fed. Reg. 2642, 2643 (Jan. 18, 2018). For instance, the U.S. Census Bureau annually computes official poverty thresholds, i.e., dollar amounts used to determine poverty status.³ Based on the Census Bureau’s poverty thresholds, the U.S. Department of Health and Human Services annually establishes poverty guidelines “used as an eligibility criterion by Medicaid and a number of other Federal programs.” *See, e.g.*, 85 Fed. Reg. at 3060.

Moreover, the poverty line may vary from country to country. *See* Aldi J.M. Hagenaars & Bernard M.S. Van Praag, *A Synthesis of Poverty Line Definitions*, 31 *Review of Income & Wealth* 139–54, 139 (Abstract) (June 1985). For instance, Ravallion states that “richer countries have higher national poverty lines” than poorer countries. Ravallion 1.

Further, the World Bank uses poverty lines other than the International Poverty Line. *See* Ravallion 1. Ravallion explains that “in its

³ *See* <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>.

work with specific developing countries, the [World] Bank uses the national poverty line considered most appropriate in each country.” *Id.*

Demonstrating inherent disclosure requires evidence that “the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present.” *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002) (quoting *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999)). Appellant’s declaration evidence shows that some people skilled in the art would use the International Poverty Line to define poverty. *See* Faller, Zoltani, Dibooglu, and Carrington Decls. But other people skilled in the art would use other poverty lines to define poverty. *See, e.g.*, Ravallion 1; 85 Fed. Reg. at 3060–61. Hence, we disagree with Appellant’s contention that the Specification inherently supports a poverty definition “based on the International Poverty Line as defined by the World Bank.”

At best, Appellant establishes that a poverty definition “based on the International Poverty Line as defined by the World Bank” would have been obvious to those skilled in the art. *See* Faller, Zoltani, Dibooglu, and Carrington Decls.; Ans. 6. But a disclosure that “merely renders the invention obvious does not satisfy” the written-description requirement. *Ariad*, 598 F.3d at 1352.

For the reasons discussed above, we sustain the § 112(a) rejection of claims 1–20.

The § 101 Rejection of Claims 1–20

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 eligibility. *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).

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

Patent-ineligible abstract ideas include fundamental economic practices, mental processes, and mathematical formulas. *See, e.g., Alice*, 573 U.S. at 219–20 (fundamental economic practice of intermediated settlement); *Bilski v. Kappos*, 561 U.S. 593, 599, 611–12 (2010) (fundamental economic practice of hedging or protecting against risk in independent claim and mathematical formula in dependent claim); *Parker v. Flook*, 437 U.S. 584, 585–86, 596–98 (1978) (mathematical formula for calculating updated alarm limit); *Gottschalk v. Benson*, 409 U.S. 63, 65–67

(1972) (mental process of converting binary-coded-decimal representation to binary representation). The 2019 Guidance specifies three groupings of abstract ideas: (1) certain methods of organizing human activity, (2) mental processes, and (3) mathematical concepts. 84 Fed. Reg. at 51–52.

In *Alice*, the Supreme Court “did not establish any ‘precise contours’ for defining whether claims are directed to ‘abstract ideas’ or something else.” *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1315 (Fed. Cir. 2019) (citing *Alice*, 573 U.S. at 221). Further, 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 “collecting and comparing user data to determine scores for the purpose of ranking users.” Final Act. 3–4. The Examiner explains that the claims encompass concepts that “are similar to concepts identified as abstract ideas by the courts.” *Id.* at 4 (citing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014); *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App’x 950 (Fed. Cir. 2014); *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011)).

Appellant disputes that the claims are directed to an abstract idea. *See* Appeal Br. 9–14; Reply Br. 4–7. Specifically, Appellant asserts that “none of the recitations of independent Claims 1, 8, and 15 can be performed mentally, recite nothing more than mathematical concepts, or are reasonably categorized as methods of organizing human activity.” Reply Br. 5; *see id.* at 6.

We disagree. Under the 2019 Guidance, we determine that each independent claim recites abstract ideas falling within two of the three groupings of abstract ideas specified in the 2019 Guidance. *See* 84 Fed. Reg. at 51–52. In particular, each claim recites (1) mental processes and (2) mathematical concepts.

First, the 2019 Guidance describes mental processes as “concepts performed in the human mind,” such as “an observation, evaluation, judgment, [or] opinion.” 84 Fed. Reg. at 52 (footnote omitted). Here, claim 1 recites the following limitations encompassing observations and evaluations performed by a human mentally or with pen and paper:

- “compiling . . . an income score based on current income of the applicant in relation to a current income for each of the applicants, an expenses score based on current expenses of the applicant, and an intangibles score based on intangible qualities of the applicant based on the applicant’s answers to the plurality of questions and the plurality of values”;
- “calculating . . . a likelihood of the applicant successfully participating in the program to exit poverty based on the income score, the expenses score, and the intangibles score”;
- “calculating . . . the applicant’s overall score based on the calculated likelihood of the applicant successfully participating in the program to exit poverty”; and
- “determining . . . the applicant’s ranking in comparison to the pool of applicants, based on each applicant’s overall score.”

Appeal Br. 23. Claims 8 and 15 recite similar limitations. *Id.* at 25, 27.

The above-identified limitations encompass observations and evaluations performed by a human mentally or with pen and paper because someone could mentally determine an income score, an expenses score, and

an intangibles score for an applicant after asking the applicant a few questions. *See Spec.* ¶¶ 15–17, 38–39, 41, Fig. 3. After determining the scores, someone could mentally or with pen and paper compile the scores. *See id.* ¶¶ 40–42. After compiling the scores, someone could mentally or with pen and paper calculate the applicant’s likelihood of successful program participation, e.g., by adding, subtracting, multiplying, or dividing various scores or combinations of scores. *See id.* ¶ 43, Fig. 3. In addition, someone could mentally or with pen and paper calculate the applicant’s overall score, e.g., by inputting the previously calculated likelihood into a formula. *See id.* ¶¶ 44–46, Fig. 3. Then, someone could mentally compare the applicant’s overall score to the overall scores for others in the applicant pool to determine the applicant’s ranking.

For these reasons, the above-identified limitations encompass observations and evaluations performed by a human mentally or with pen and paper. The 2019 Guidance identifies observations and evaluations performed by a human mentally or with pen and paper as mental processes, 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.”).

Second, the 2019 Guidance describes mathematical concepts as including “mathematical relationships, mathematical formulas or equations, [and] mathematical calculations.” 84 Fed. Reg. at 52. Here, claim 1 recites the following limitations encompassing mathematical relationships and mathematical calculations:

- “calculating . . . a likelihood of the applicant successfully participating in the program to exit poverty based on the income score, the expenses score, and the intangibles score”;
- “calculating . . . the applicant’s overall score based on the calculated likelihood of the applicant successfully participating in the program to exit poverty”; and
- “determining . . . the applicant’s ranking in comparison to the pool of applicants, based on each applicant’s overall score.”

Appeal Br. 23. Claims 8 and 15 recite similar limitations. *Id.* at 25, 27.

Each of the above-identified limitations involves mathematical relationships or mathematical calculations (or both). For example, the “calculating” limitations expressly require mathematical calculations. Further, the “determining” limitation involves mathematical relationships that compare the magnitudes of different numbers. The 2019 Guidance identifies mathematical relationships and mathematical calculations as mathematical concepts, and thus an abstract idea. 84 Fed. Reg. at 52.

Appellant “submits that the present claims cannot be performed mentally” because they “recite a computer device that performs” calculating, comparing, and ranking functions. Reply Br. 5. We disagree because, as discussed above, a human can perform the calculating, comparing, and ranking functions mentally or with pen and paper. *See Spec.* ¶¶ 38–46, Fig. 3. For example, the independent claims do not specify the applicant pool’s size, and the pool could consist of two or three applicants. Appeal Br. 23–27. Someone could rank or re-rank two or three applicants mentally or with pen and paper.

Appellant analogizes the claims here to the claims in Application 13/287,831 where the Board determined that the abstract idea of “collecting

usage information” identified by the Examiner did not fall within any of the three groupings of abstract ideas specified in the 2019 Guidance. Reply Br. 6. But the claims here differ from the claims in Application 13/287,831 because the claims here recite abstract ideas falling within two of the three groupings.

For the reasons discussed above, each independent claim recites (1) mental processes and (2) mathematical concepts. Thus, each claim recites abstract ideas.

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 components, i.e., a “computer device” or “computing device,” a “memory” or “memory device,” and a “processor.” Appeal Br. 23–27; *see* Final Act. 4–5. The claims also recite data-collecting and data-presenting limitations. Appeal Br. 23–27.

For instance, claim 1 recites the following data-collecting and data-presenting limitations:

- “storing . . . a plurality of questions to ask each applicant currently living in poverty from a pool of applicants currently living in poverty based on the International Poverty Line as defined by the World Bank”;
- “storing . . . a plurality of values based on historical data, wherein each value is associated with each of one or

more potential answers for each question of the plurality of questions, wherein the plurality of values are based on an applicant's chances of success in the program to exit poverty, and wherein the historical data is based on past participation of applicants in the program"; and

- "outputting . . . the rankings of the applicants."

Appeal Br. 23–24. Claims 8 and 15 recite similar limitations. *Id.* at 24–27.

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. 3–5. Instead, the claimed computer components constitute generic computer components that perform generic computer functions. *See* Spec. ¶¶ 26–29; Final Act. 5 (citing Spec. ¶ 28); Ans. 9. Further, the data-collecting and data-presenting limitations constitute insignificant extra-solution activity. *See, e.g., Mayo*, 566 U.S. at 79; *Bilski*, 561 U.S. at 611–12; *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 responses were "conventional data-

gathering activities that [did] 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*, 659 F.3d at 1067 (analogizing “data gathering” to “insignificant extra-solution activity”). In particular, the “storing” and “store” limitations operate to make data available for processing like the “conventional data-gathering activities” in *OIP Technologies*. *See OIP Techs.*, 788 F.3d at 1363–64; *see also Bilski*, 561 U.S. at 611–12 (establishing inputs for mathematical formula); Spec. ¶¶ 3, 21. Hence, the data-collecting limitations in each independent claim 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. *Flook*, 437 U.S. at 590, 596–98; *see Bilski*, 561 U.S. at 610–11 (discussing *Flook*). 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 no particular presentation tool and nothing unconventional or significant. Instead, the “outputting” and “output” limitations require nothing more than a generic display for

presenting applicant rankings. For example, the Specification describes a “display device” as including “a cathode ray tube (CRT), liquid crystal display (LCD), light emitting diode (LED) display, or ‘electronic ink’ display.” Spec. ¶ 30. Just as printing menu information in *Apple* constituted insignificant post-solution activity, presenting applicant rankings here constitutes insignificant post-solution activity. Hence, the data-presenting limitation in each independent claim does not help integrate the recited abstract ideas into a practical application.

Appellant analogizes the claims here to the claims in *McRO*. See Appeal Br. 9–14 (citing *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)). In particular, Appellant argues that “like the *McRO* patents, Appellant’s application discloses and claims *not* the automation of steps previously known in the art, but rather a *new* ordered combination of rules that solves a specifically identified problem in the prior art.” *Id.* at 11 (emphasis by Appellant). In addition, Appellant contends that “[b]ecause Appellant’s claims use ‘limited rules in a process specifically designed to achieve an improved technological result in conventional industry practice,’ they must be held to be patent-eligible at step one.” *Id.* at 12 (quoting *McRO*, 837 F.3d at 1316).

We disagree that the claims here resemble the claims in *McRO*. There, the claims recited a “specific . . . improvement in computer animation.” *McRO*, 837 F.3d at 1315. In particular, the claims recited “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. *Id.* at 1302–03, 1307–08, 1313–15.

The Federal Circuit decided that the claims satisfied § 101 under *Mayo/Alice* step one because “the incorporation of the claimed rules” improved an existing technological process. *Id.* at 1314–16; *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*, the claims here do not recite “unconventional rules” or improve an existing technological process. *See* Final Act. 5; Ans. 7, 10. For example, claim 1’s “compiling,” “calculating,” and “determining” limitations are not “rules” like the expressly claimed “rules” in *McRO*, i.e., “a first set of rules that define output morph weight set stream as a function of phoneme sequence and time of said phoneme sequence.” *See McRO*, 837 F.3d at 1307–08, 1313.

Using generic computer components to interview, score, and rank applicants is not a technological process. *See* Ans. 10. The “need to perform tasks automatically is not a unique technical problem.” *Cellspin Soft*, 927 F.3d at 1316. Here, the claims merely automate the manual processes of interviewing, scoring, and ranking applicants, and thus facilitate “difficult and time consuming” activities. *See* Appeal Br. 23–27; Spec. ¶¶ 1, 10–12, 38–46, Fig. 3. The “mere automation of manual processes using generic computers” does not suffice for patent eligibility. *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017); *see Univ. of Fla.*, 916 F.3d at 1367.

In addition, Appellant concedes that the claims seek to overcome “the problem that selecting candidates . . . requires significant time and effort.” Appeal Br. 15. Claims “seek[ing] to automate ‘pen and paper

methodologies’ to conserve human resources” are directed to an abstract idea. *See Univ. of Fla.*, 916 F.3d at 1367–68.

Based on *McRO*, Appellant asserts that “the absence of any risk of preemption further supports the conclusion that the asserted claims are not directed to an abstract idea.” Appeal Br. 13–14. Appellant wrongly relies on an absence of preemption to establish patent eligibility. *See Ans.* 8. While preemption may denote ineligibility, its absence does not establish eligibility. *See FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016). 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).

Appellant contends that the claims include “detailed limitations recit[ing] a specific manner of electronically selecting participants from an applicant pool to participate in a program to exit poverty that provides a specific improvement over prior poverty assistance systems, resulting in an improved system for assisting individuals in exiting poverty.” Reply Br. 7. Appellant “submits that leveraging applicant data” to “(i) calculate scores for individual applicants, (ii) compare the applicants to the other applicants in the applicant pool, (iii) rank each applicant based on the scores, and (iv) automatically re-rank each applicant based on changes to one or more applicants in the applicant pool” provides “the technical improvement.” *Id.*

We disagree. As discussed above, using generic computer components to interview, score, and rank applicants is not a technological process. *See Ans.* 10. The Specification does not discuss an advance in hardware or software that, for example, causes a computing device, memory

device, or processor to operate faster or more efficiently. The claimed invention does not improve the functioning of a computer or any other technology. Final Act. 5; *see* Ans. 10.

Appellant analogizes the claims here to the claims in *BASCOM*. *See* Appeal Br. 15–16 (citing *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016)). Specifically, Appellant asserts that the claims here recite “a technology-based solution” that “overcomes existing problems with other aid providing methods, namely the problem that selecting candidates that will be successfully [sic] both in the program and afterwards requires significant time and effort.” *Id.* at 15.

We disagree that the claims here resemble the claims in *BASCOM*. There, 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 decided that the claims satisfied § 101 under *Mayo/Alice* step two. *Id.* at 1349–51. The court 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).

Unlike the claims in *BASCOM*, the claims here do not cover a technology-based solution that improves an existing technological process. *See* Final Act. 5; Ans. 7, 10. As discussed above, using generic computer components to interview, score, and rank applicants is not a technological process. *See* Ans. 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 of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016) (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 computer components, i.e., a “computer device” or “computing device,” a “memory” or “memory device,” and a “processor.” Appeal Br. 23–27; *see* Final Act. 4–5. As also discussed above, the claimed computer components constitute generic computer components that perform generic computer functions. *See* Spec. ¶¶ 26–29; Final Act. 5 (citing Spec. ¶ 28); Ans. 9.

The Specification describes the claimed computer components generically and evidences their conventional nature. *See* Spec. ¶¶ 26–29. As an example, the Specification states that the disclosed “generic computing device” represents (1) “various forms of digital computers, such as laptops, desktops, workstations, personal digital assistants, servers, blade servers, mainframes, tablets, and other appropriate computers” and (2) “various forms of mobile devices, such as personal digital assistants, cellular telephones, smart phones, and other similar computing devices.” *Id.* ¶ 28. As another example, the Specification describes a “memory device” as including “RAM memory, ROM memory, EPROM memory, EEPROM memory, and non-volatile RAM (NVRAM) memory.” *Id.* ¶ 27. As yet another example, the Specification explains that a “processor” refers to “central processing units, microprocessors, microcontrollers, reduced instruction set circuits (RISC), application specific integrated circuits (ASIC), logic circuits, and any other circuit or processor capable of executing the functions described herein.” *Id.* ¶ 26.

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*, 409 U.S. at 64–65, 71).

Moreover, the claimed computer components operate to collect, manipulate, and display data. Appeal Br. 23–27; *see* Final Act. 3–5; Ans. 9. Court decisions have recognized that generic computer components operating to collect, 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; *Apple*, 842 F.3d at 1234, 1241–42; *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); *see also* Ans. 9 (citing court decisions).

For example, the system claims in *Alice* recited a “data processing system” (e.g., a “computer device” or “computing device”) with a “communications controller” and a “data storage unit” (e.g., a “memory” or “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 components perform “basic calculation, storage, and transmission functions” that nearly every computer performs. Appeal Br. 23–27; *see* Final Act. 5; Ans. 9. For instance, nearly every computer includes a “processor” for manipulating data and a “memory” or “memory device” for storing data. Nothing in the claims “requires anything other than conventional computer . . . components operating according to their ordinary functions.” *See Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1339, 1341 (Fed. Cir. 2017).

Hence, the claimed computer components do not satisfy the “inventive concept” requirement. *See, e.g., Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1361, 1366 (Fed. Cir. 2020) (describing the claimed “processor,” “storage device,” “programmable receiver unit,” and “remote server” as “generic computer components”); *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*, 839 F.3d at 1095–96 (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., claim 1’s “storing” and “outputting” limitations. 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; *Bilski*, 561 U.S. at 611–12; *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.

To satisfy the “inventive concept” requirement, Appellant asserts that the claims recite a “novel architecture” not “well-understood, routine, and conventional.” Appeal Br. 14. Appellant contends that “claims introduce a new structural component—the recited computer system” that “enables (i) calculating scores for individual applicants, (ii) comparing the applicants to the other applicants in the applicant pool, (iii) ranking each applicant based on the scores, and (iv) automatically re-ranking each applicant based on changes to one or more applicants in the applicant pool.” *Id.* (emphasis by Appellant).

Insofar as Appellant relies on the recited abstract ideas to satisfy the “inventive concept” requirement, Appellant wrongly does so. 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 LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). Under “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).

Insofar as Appellant relies on novelty and nonobviousness over the prior art to satisfy the “inventive concept” requirement, Appellant wrongly

does so. Novelty and nonobviousness do not “resolve the question of whether the claims embody an inventive concept” under *Mayo/Alice* step two. *Symantec*, 838 F.3d at 1315; *see SAP Am.*, 898 F.3d at 1163. “The search for a § 101 inventive concept” differs “from demonstrating § 102 novelty.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016); *see Two-Way Media*, 874 F.3d at 1340. “The ‘novelty’ of any element[s] or steps” in a claim or even the claim itself “is of no relevance in determining whether the subject matter of a claim” satisfies § 101. *Diehr*, 450 U.S. at 188–89.

Further, contrary to Appellant’s contention, programing a computer to perform an allegedly novel algorithm does not transform the computer into “a new structural component.” *See Alice*, 573 U.S. at 213, 225–27; *Bilski*, 561 U.S. at 599, 609–13; *SAP Am.*, 898 F.3d at 1163–65; Appeal Br. 14. The allegedly novel algorithm does not alter a processor’s structure or a memory’s structure.

Appellant asserts that the § 101 rejection fails under *Berkheimer*. Appeal Br. 14–15 (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018)). We disagree because the Examiner cites court decisions recognizing that generic computer components operating to collect, manipulate, and display data are well understood, routine, and conventional to a skilled artisan. *See Ans. 9*; *see also Alice*, 573 U.S. at 226–27; *SAP Am.*, 898 F.3d at 1164–65 & n.1, 1170; *Apple*, 842 F.3d at 1234, 1241–42; *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. In addition, the Examiner “provide[s] a citation to Appellant’s specification” where it “discusses the use of general-purpose, generic computer components for performing

Appellant’s claimed invention without disclosing any special-purpose or non-conventional computer components.” Final Act. 5 (citing Spec. ¶ 28); Ans. 9.

“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. Considering the limitations as an ordered combination adds nothing to the abstract ideas that is not already present when considering the limitations separately. *See Mayo*, 566 U.S. at 79; Final Act. 5. The ordered combination of limitations in each independent claim amounts to nothing more than the abstract ideas implemented with generic computer components that perform generic computer functions. *See Alice*, 573 U.S. at 225–26; Final Act. 5; Ans. 9. Hence, we conclude that the ordered combination of limitations in each independent claim does not supply an “inventive concept” that renders the claim “significantly more” than the abstract ideas. *See* Final Act. 4–5; Ans. 9. Thus, each claim does not satisfy § 101 under *Mayo/Alice* step two.

SUMMARY FOR INDEPENDENT CLAIMS 1, 8, AND 15

For the reasons discussed above, Appellant’s arguments have not persuaded us of any error in the Examiner’s findings or conclusions under *Mayo/Alice* step one or step two. Hence, we sustain the § 101 rejection of the independent claims.

DEPENDENT 2–7, 9–14, AND 16–20

We also sustain the § 101 rejection of dependent claims 2–7, 9–14, and 16–20 because Appellant does not argue eligibility separately for them. *See* Appeal Br. 9–16; Reply Br. 4–8; 37 C.F.R. § 41.37(c)(1)(iv).

The § 103 Rejection of Claims 1–4, 6–11, 13–18, and 20

INDEPENDENT CLAIMS 1, 8, AND 15

As noted above, the § 103 rejection of claims 1, 8, and 15 rests on Stimac, Deyo, and Ravallion. *See* Final Act. 6–12. Appellant argues that the Examiner erred in rejecting the claims because the references fail to teach or suggest the following limitation in claim 1 and similar limitations in claims 8 and 15:

compiling, by the computing device, an income score based on current income of the applicant in relation to a current income for each of the applicants, an expenses score based on current expenses of the applicant, and an intangibles score based on intangible qualities of the applicant based on the applicant’s answers to the plurality of questions and the plurality of values.

See Appeal Br. 16–19; Reply Br. 8–9.

Specifically, Appellant asserts that no reference teaches or suggests determining an income score, an expenses score, and an intangibles score as required by the “compiling” limitation. *See* Appeal Br. 16–18; Reply Br. 8–9. Appellant also asserts that Stimac “merely describes questions for a job applicant” and does not relate to poverty. Appeal Br. 18; Reply Br. 9. In addition, Appellant contends that Deyo merely “describe[s] the use of historical answer data relating to performance data of previous applicants to determine the potential effectiveness of potential answers to predict job performance.” Appeal Br. 18. Appellant also contends that Ravallion teaches only “poverty being measured based on the International Poverty Line as defined by the World Bank.” *Id.* at 19.

The Examiner finds that “Stimac does not explicitly disclose scores specifically measuring data related to income, expense and/or intangible data.” Final Act. 10, 13. But the Examiner construes the claimed “type of

data/score” as “simply a label for the data” that “does not serve to distinguish over the prior art.” *Id.* at 10. The Examiner reasons that the claimed scores “are not used in any significant manner in the claimed invention” and that “substituting those scores with other, different scores based on different data would not materially alter the performance and/or outcome of the claimed invention.” *Id.* According to the Examiner, “the claims merely recite the determining of various scores, each score being provided a label that doesn’t affect how it is determined.” Ans. 12.

We disagree with the Examiner because the claims require using the claimed income score, expenses score, and intangibles score for calculating and ranking purposes. Appeal Br. 23–27. Substituting Stimac’s scores or Deyo’s scores for the claimed scores would affect the claimed calculations and rankings, and thus would “alter the performance and/or outcome of the claimed invention.” *See* Stimac ¶¶ 109, 134, 141, 150–152, 160, code (57), Figs. 68–69; Deyo ¶¶ 20, 24–25, 31, code (57), Fig. 1. Thus, based on the record before us, we agree with Appellant that the Examiner has not adequately explained how the cited portions of the references teach or suggest the “compiling” and “compile” limitations in claims 1, 8, and 15. Hence, we do not sustain the § 103 rejection of claims 1, 8, and 15.

DEPENDENT CLAIMS 2–4, 6, 7, 9–11, 13, 14, 16–18, AND 20

Claims 2–4, 6, and 7 depend from claim 1; claims 9–11, 13, and 14 depend from claim 8; and claims 16–18 and 20 depend from claim 15. For the reasons discussed for claims 1, 8, and 15, we do not sustain the § 103 rejection of claims 2–4, 6, 7, 9–11, 13, 14, 16–18, and 20.

The § 103 Rejection of Claims 5, 12, and 19

Claim 5 depends from claim 1; claim 12 depends from claim 8; and claim 19 depends from claim 15. The Examiner relies on official notice for the limitations in claims 5, 12, and 19 but not for the “compiling” and “compile” limitations in claims 1, 8, and 15. *See* Final Act. 6–12, 14–15. For the reasons discussed for claims 1, 8, and 15, we do not sustain the § 103 rejection of claims 5, 12, and 19.

Because the preceding determinations resolve the § 103 rejections for claims 1–20, we need not address Appellant’s other arguments regarding Examiner error. *See, e.g., Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (explaining that an administrative agency may render a decision based on “a single dispositive issue”).

CONCLUSION

We affirm the rejection of claims 1–20 under 35 U.S.C. § 101.

We reverse the rejections of claims 1–20 under 35 U.S.C. § 103.

We affirm the rejection of claims 1–20 under 35 U.S.C. § 112(a).

Because we affirm at least one ground of rejection for each claim on appeal, we affirm the Examiner’s decision to reject all of the claims on appeal. *See* 37 C.F.R. § 41.50(a)(1).

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	
1–4, 6–11, 13–18, 20	103	Stimac, Deyo, Ravallion		1–4, 6–11, 13–18, 20

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
5, 12, 19	103	Stimac, Deyo, Ravallion, official notice		5, 12, 19
1-20	112(a)	Written Description	1-20	
Overall Outcome			1-20	

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)(1)(iv). *See* 37 C.F.R. § 41.50(f).

AFFIRMED