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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* KEVIN SCOTT LESTER

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Appeal 2018-005590  
Application 14/037,128  
Technology Center 2100

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Before JOSEPH L. DIXON, ERIC S. FRAHM, and JOHNNY A. KUMAR,  
*Administrative Patent Judges.*

KUMAR, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1–23. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

STATEMENT OF THE CASE

Appellant's invention relates to determining relevance of reviews, such as reviews for an item, based at least in part on similarities between users submitting reviews and a user viewing the reviews. Spec. ¶¶ 8–9.

Claim 3 is illustrative:

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<sup>1</sup> Appellant identifies the real party in interest as Audible, Inc., a subsidiary of Amazon.com, Inc. App. Br. 3.

3. A system comprising:
  - an electronic data store configured to store item reviews;and
  - a computing system comprising one or more computing devices, said computing system in communication with the electronic data store and configured to at least:
    - receive an indication of an item of interest to a user;
    - determine one or more environment attributes of a geographic location associated with the user;
    - retrieve, from the electronic data store, review information associated with each of a plurality of reviews of the item;
    - for each of the plurality of reviews of the item:
      - determine one or more environment attributes of a geographic location associated with a reviewer that submitted the review; and
      - determine an environment similarity score associated with the review, wherein the environment similarity score is determined based at least in part by comparing the one or more environment attributes associated with the geographic location of the user and the one or more environment attributes associated with the geographic location of the reviewer; and
      - generate a weighted rating for the item, wherein the weighted rating is generated based at least in part by assigning a weight to each of the plurality of reviews, wherein the weight assigned to each review is based at least in part on the environment similarity score determined for the review.

## REJECTIONS

- A. Claims 1–23 are rejected under 35 U.S.C. § 101, as being directed to a judicial exception, without significantly more. Ans. 3–18.<sup>2</sup>

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<sup>2</sup> Throughout this Opinion, we refer to (1) the Non-Final Office Action delivered April 10, 2017 (Act.); (2) the Appeal Brief filed September 8,

- B. Claims 3–8, and 11 are rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent Application Publication No. 2013/0124449 A1, to Pinckney et al. (hereinafter “Pinckney”). Act. 2–7.
- C. Claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pinckney in view of U.S. Patent Publication No. 2009/0088967 A1, to Lerner et al. (hereinafter “Lerner”). Act. 19–24.
- D. Claims 9, 10, and 12–23 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Pinckney in view of U.S. Patent No. 8,676,596 B1, to Franson et al. (hereinafter “Franson”). Act. 8–19.

#### THE INELIGIBILITY REJECTION

The Examiner determines the claims “correspond to concepts identified as abstract ideas by the courts, such as tailoring content based on information about the user.” Ans. 4–5, 7–9, 11–13 and 15–16. The Examiner further determines that the claims do not include additional elements that add significantly more than the abstract idea, but merely recite generic computing components. *Id.* at 5–7, 9–11, and 13–17.

Appellant argues the claims are not directed to an abstract idea, but rather, similar to *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018) and *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016), the claimed invention recites an improvement in efficiencies of computer related technology. Reply Br. 3–4, 7–8, 11–13, and

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2017 (“App. Br.”); (3) the Examiner’s Answer delivered March 9, 2018 (“Ans.”); and (4) the Reply Brief filed May 8, 2018 (“Reply Br.”).

15–16. Specifically, the invention is said to improve “the speed and efficiency with which users can navigate to desired information”, such as locating reviews relevant to the user. Reply Br. 4, 11–13. Appellant adds, the claimed invention as a whole amounts to significantly more to the purported abstract idea for at least the reason the claimed invention recites how a result is to be achieved. Reply Br. 5–10, 13–14 and 17.

### ISSUE

Under § 101, has the Examiner erred in rejecting claims 1–23 as directed to ineligible subject matter? This issue turns on whether the claims are directed to an abstract idea and, if so, whether additional elements recited—considered individually and as an ordered combination—transform the nature of the claims into a patent-eligible application of that abstract idea.

### PRINCIPLES OF LAW

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[I]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice*, 573 U.S. at 216 (citation omitted).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573

U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. (15 How.) 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). That said, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological

environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citation omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

In January 2019, the USPTO published revised guidance on the application of § 101. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Revised Guidance”). Under that guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) §§ 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08. 2017, Jan. 2018)).

Only if a claim (1) recites a judicial exception, and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not well-understood, routine, and conventional in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

*See* Revised Guidance, 84 Fed. Reg. at 56.

#### INELIGIBILITY ANALYSIS

Claims 1–11 recite a system. Claims 12–17 recite a method. Claims 18–23 recite a computer readable medium. Each of the claims, therefore, falls within a statutory category of 35 U.S.C. § 101. But despite each of the claims falling within a statutory category, we must still determine whether the claimed invention is directed to a judicial exception, namely an abstract idea. *See Alice*, 573 U.S. at 217. To this end, we determine (1) whether claimed invention recites a judicial exception (Revised Guidance Step 2A – Prong 1) and, if so, (2) whether the identified judicial exception is integrated into a practical application (Revised Guidance Step 2A – Prong 2). *See* Revised Guidance, 84 Fed. Reg. at 52–55.

#### *Revised Guidance Step 2A – Prong 1*

To determine whether a claim recites an abstract idea, we (1) identify the claim’s specific limitations that recite an abstract idea, and (2) determine

whether the identified limitations fall within certain subject matter groupings, namely (a) mathematical concepts;<sup>3</sup> (b) certain methods of organizing human activity<sup>4</sup>; or (c) mental processes.<sup>5</sup>

Here, apart from (1) an *electronic data store*, recited in independent claims 1, 3, 12 and 18 (App. Br. 29–33 (Claims Appendix)); (2) a *computing system comprising one or more computing devices*, recited in independent claims 1, 3 and 12 (App. Br. 29–31 (Claims Appendix)); and (3) a *computer-readable non-transitory storage medium* recited in independent claim 18 (App. Br. 33, Claims Appendix), the claimed invention’s recited limitations, which collectively recites gathering and filtering or tailoring data based on relevance to an individual, fit squarely within at least one of the above categories of the agency’s guidelines.

First, the claimed invention recites steps of data gathering in furtherance of organizing human activity, such as organizing human written reviews of goods or services. The case law establishes the claim limitations reciting gathering and filtering or tailoring data based on relevance to an

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<sup>3</sup> Mathematical concepts include mathematical relationships, mathematical formulas or equations, and mathematical calculations. *See Revised Guidance*, 84 Fed. Reg. at 52.

<sup>4</sup> Certain methods of organizing human activity include fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions). *See Revised Guidance*, 84 Fed. Reg. at 52.

<sup>5</sup> Mental processes are concepts performed in the human mind including an observation, evaluation, judgment, or opinion. *See Revised Guidance*, 84 Fed. Reg. at 52.

individual is a certain method of organizing human activity. *Cf. Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307 at 1313 (Fed. Cir. 2016) (“receiving e-mail (and other data file) identifiers, characterizing email based on the identifiers, and communicating the characterization – in other words, filtering files/e-mail –is an abstract idea”); *see also* M.P.E.P. 2106.04(a)(2), II (“Certain Methods of Organizing Human Activity”, Section D, example v, citing *Symantec*); *Dealertrack v. Huber*, 674 F.3d 1315 at 1333 (Fed. Cir. 2012) (“receiving data from one source, selectively forwarding the data, and forwarding reply data to the first source” constituted an abstract idea); M.P.E.P. 2106.04(a)(2), II (“Certain Methods of Organizing Human Activity”, Section A, citing *Dealertrack*).

For example, claim 1 and exemplary claim 3 recite steps to (1) “receive an indication of an item of interest to a user”; (2) “determine one or more environment attributes of a geographic location associated with the user”; (3) “retrieve . . . review information associated with each of a plurality of reviews of the item”; and (4) “determine one or more environment attributes of a geographic location associated with a reviewer that submitted the review” which involve certain methods of organizing human activity, such as managing personal behavior, relationships or interactions between people by facilitating data collection using rules or instructions.

Independent claim 1 identically recites quoted limitations (1)–(4) and additionally recites in limitation (3) “wherein the one or more environment attributes relate to at least one of: average weather conditions in the geographic location, altitude or population density”. App. Br. 29 (Claims

Appendix). This additional limitation further involves certain methods of organizing human activity by facilitating data collection.

Independent claims 12 and 18 recite steps similar to (3) “*retrieving, from an electronic data store, review information associated with each of a plurality of reviews of an item, wherein the review information associated with each review comprises information identifying a reviewer that submitted the review and a geographic location associated with the reviewer*” and (4) “*for each of the plurality of reviews of the item, determining one or more environment attributes of the geographic location associated with the reviewer that submitted the review*” (App Br. 31–33 (Claims Appendix)). Accordingly, each of steps (1)–(4) in the independent recite certain methods of organizing human activity, such as managing personal behavior, relationships or interactions between people by facilitating data collection using rules or instructions. *Cf. Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1345–49 (Fed. Cir. 2014) (holding ineligible claims reciting (1) receiving output representing diverse types of hard copy documents from an automated digitizing unit, and (2) storing information from those documents into memory); *see also CyberSource*, 654 F.3d at 1372 (noting that limitation reciting obtaining information about transactions that have used an Internet address identified with a credit card transaction can be performed by a human who simply reads records of Internet credit card transactions from a pre-existing database); *In re Salwan*, 681 F. App’x 938, 939–41 (Fed. Cir. 2017) (unpublished) (holding ineligible claims reciting, among other things, receiving medical records information and transmitting reports where the claimed invention’s objective was to enable electronic communication of

tasks that were otherwise done manually using paper, phone, and facsimile machine); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1344 (Fed. Cir. 2018) (noting that a nontechnical human activity of passing a note to a person who is in a meeting or conversation as illustrating the invention’s focus, namely providing information to a person without interfering with the person’s primary activity); *LendingTree, LLC v. Zillow, Inc.*, 656 F. App’x 991, 993–94, 996 (Fed. Cir. 2016) (unpublished) (holding ineligible claims reciting, among other things, receiving selection criteria from lending institutions and credit data from a computer user, and forwarding the credit data to selected lending institutions as directed to an abstract idea).

Specifically, limitations (1)–(4) recite gathering sender and reviewer related data in furtherance of organizing human activity, namely, managing an interaction between a sender and a recipient in furtherance of organizing human activity. In *Symantec*, our reviewing court found claim limitations reciting

*identifying characteristics of data files comprising: receiving, on a processing system, file content identifiers for data files from a plurality of file content identifier generator agents*

(emphasis added) constitute an abstract idea related to retrieving data using data file identifiers. *See Syamntec*, 838 F.3d 1307 at 1313.

Second, the claimed invention recites steps (5)–(7) of using the data gathered in steps (1)–(4), to filter or tailor data based on data comparisons in furtherance of organizing human activity, such as organizing human written reviews of goods or services.

For example, exemplary claim 3 recites steps to (5) “*determine an environment similarity score associated with the review . . . based at least in part by comparing the one or more environment attributes associated with*

*the geographic location of the user and the one or more environment attributes associated with the geographic location of the reviewer” and (6) “generate a weighted rating for the item . . . based at least in part by assigning a weight to each of the plurality of reviews, wherein the weight assigned to each review is based at least in part on the environment similarity score determined for the review”* which are certain methods of organizing human activity, such as managing personal behavior, relationships or interactions between people by filtering or tailoring gathered data to an individual using rules or instructions.

Independent claim 1 recites step (5) identically and similarly manipulates review data on the basis of an environment similarity score with respect to step (6), reciting *“select one or more of the plurality of reviews as relevant to an environment of the user, wherein the one or more reviews are selected as relevant based at least in part on the determined environment similarity scores”* (App. Br. 29 (Claims Appendix)), which also are certain methods of organizing human activity, such as managing personal behavior, relationships or interactions between people by filtering or tailoring gathered data to an individual using rules or instructions.

Independent claim 12 similarly organizes review data based on an environmental attribute comparison with respect to step (5), reciting *“determining . . . a relevance score with respect to at least one environment attribute, wherein the relevance score for each review is determined based at least in part by comparing the at least one environment attribute and the determined one or more environment attributes of the geographic location associated with the reviewer that submitted the review”* and identically recites step (6) (App. Br. 31–32 (Claims Appendix)). Independent claim 12

additionally recites (7) “*determining a sort order for presenting at least a subset of the plurality of reviews, wherein the sort order is determined based at least in part on the determined relevance score for each of the plurality of reviews with respect to the at least one environment attribute*” (App. Br. 32 (Claims Appendix)) which also are certain methods of organizing human activity, such as managing personal behavior, relationships or interactions between people by filtering or tailoring gathered data to an individual using rules or instructions.

Independent claim 18 recites steps similar to (5), reciting “*comparing the at least one environment attribute and the determined one or more environment attributes of the geographic location associated with the reviewer that submitted the review*” and (6), reciting “*generating a weighted average review for the item with respect to at least one environment attribute . . . based at least in part by applying a weight to each of the plurality of reviews, wherein the weight applied to each review is based at least in part by comparing the at least one environment attribute and the determined one or more environment attributes*” (App. Br. 33 (Claims Appendix)) which also which are certain methods of organizing human activity, such as managing personal behavior, relationships or interactions between people by filtering or tailoring gathered data to an individual using rules or instructions.

The relevant case law establishes steps (5)–(7) recite certain methods of organizing human activities, which is a type of abstract idea. Specifically, our reviewing court found that email filtering with user–set criteria was directed to certain methods of organizing human activities, which is a type of abstract idea. *See Intellectual Ventures I LLC v. Symantec Corp.*, 838

F.3d 1307 at 1313 (Fed. Cir. 2016) (“receiving e-mail (and other data file) identifiers, characterizing email based on the identifiers, and communicating the characterization – in other words, filtering files/e-mail –is an abstract idea”); *see also* M.P.E.P. 2106.04(a)(2), II (“Certain Methods of Organizing Human Activity”, Section D, example v, citing *Symantec*). Also, our reviewing court found user customizable content filtering of information retrieved from the Internet to constitute certain methods of organizing human activities, which is a type of abstract idea. *See BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1345–1346 (Fed. Cir. 2016); *see also* M.P.E.P. 2106.04(a)(2), II (“Certain Methods of Organizing Human Activity”, Section C, example i, citing *BASCOM*). These cases are relevant because user–customization means that wanted and unwanted content may be defined according to user related data. Retrieval of information defining the wanted and unwanted content in a multi-user environment requires use of the user related data. *See, e.g., BASCOM, supra*. Although the claimed invention involves organizing review content, rather than blocking or allowing access to requested content like these cases, the use of user and/or reviewer information to retrieve information such as information including “geographic location”, “environment attributes”, i.e., steps (1)–(4), for taking action with respect to the content of reviews, such as to organize review content, i.e., “generating a weighted review” (Claims 12 and 18); “determining a sort order for presenting” (Claim 12); “generating a weighted rating” (Claim 3); and “selecting one or more of the plurality of reviews as relevant” (Claim 1), i.e., steps (5)–(7), is similar.

Furthermore, similar to the data gathering (1)–(4) and selective transmission of content based on user characteristics (5)–(7) shown above,

our reviewing court in *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363 (Fed. Cir. 2017) found that retrieving data from a user profile and tailoring content transmitted to the user based on the “the user’s personal characteristics” constituted certain methods of organizing human activity, which is type of abstract idea. 792 F.3d 1363, 1369–1370; *see also* M.P.E.P. 2106.04(a)(2), II (“Certain Methods of Organizing Human Activity”, Section C, citing *Capital One Bank (USA)*).

Accordingly, steps (1)–(7) reciting receiving or retrieving data related to an individual (i.e., a user or reviewer) in order to filter or tailor review data to an individual falls squarely within the **certain methods of organizing human activity** category of the agency’s guidelines and, therefore, recite an abstract idea. *See* Revised Guidance, 84 Fed. Reg. at 52 (listing exemplary certain methods of organizing human activity, including managing personal behavior or relationships following rules or instructions).

Third, as discussed *infra*, steps (5)–(7) recited in independent claims 1, 3, 12, and 18 recite an additional category of abstract idea, namely a **mental process**, since steps (5)–(7) can also be performed mentally or by using pen and paper. For example, claim 3 recites steps to (5) “*determine an environment similarity score associated with the review . . . based at least in part by comparing the one or more environment attributes associated with the geographic location of the user and the one or more environment attributes associated with the geographic location of the reviewer*” and (6) “*generate a weighted rating for the item . . . based at least in part by assigning a weight to each of the plurality of reviews, wherein the weight assigned to each review is based at least in part on the environment similarity score determined for the review*”.

Independent claim 1 recites step (5) identically and similarly manipulates review data on the basis of an environment similarity score with respect to step (6), reciting “*select one or more of the plurality of reviews as relevant to an environment of the user, wherein the one or more reviews are selected as relevant based at least in part on the determined environment similarity scores*” (App. Br. 29 (Claims Appendix)).

Independent claim 12 similarly organizes review data based on an environmental attribute comparison with respect to step (5), reciting “*determining . . . a relevance score with respect to at least one environment attribute, wherein the relevance score for each review is determined based at least in part by comparing the at least one environment attribute and the determined one or more environment attributes of the geographic location associated with the reviewer that submitted the review*” (App. Br. 31–32 (Claims Appendix)) and identically recites step (6). Independent claim 12 additionally recites (7) “*determining a sort order for presenting at least a subset of the plurality of reviews, wherein the sort order is determined based at least in part on the determined relevance score for each of the plurality of reviews with respect to the at least one environment attribute*” (App. Br. 32 (Claims Appendix)).

Independent claim 18 recites steps similar to (5), reciting “*comparing the at least one environment attribute and the determined one or more environment attributes of the geographic location associated with the reviewer that submitted the review*” and (6), reciting “*generating a weighted average review for the item with respect to at least one environment attribute . . . based at least in part by applying a weight to each of the plurality of reviews, wherein the weight applied to each review is based at*

*least in part by comparing the at least one environment attribute and the determined one or more environment attributes”* (App. Br. 33 (Claims Appendix)).

Alternatively, steps (5)–(7) recited in italics above could be carried out as a mental process, or by a human mind using a pen and paper by (5) reading a print out of two data sets (i.e., a user data set and a review data set) containing data for a variable (i.e., an environmental attribute such as altitude or average yearly rainfall), and mentally determine or annotate the print out to indicate which variables in the respective data sets are the closest by assigning a high number to relatively similar numbers and a low number to relatively dissimilar numbers; (6) using the assigned number, mentally selecting higher numbers (claim 1) or mentally multiplying the number with a respective item rating<sup>6</sup> associated with the variable, such as a 1–5 rating, contained in the review data set (claims 3, 12, and 18); and (7) annotating the print out to rearrange the reviews in an order going from highest number to lowest number.

This conclusion follows from *CyberSource Corp. v. Retail Decisions, Inc.*, where our reviewing court held that section 101 did not embrace a process defined simply as using a computer to perform a series of mental steps that people, aware of each step, can and regularly do perform in their heads. 654 F.3d 1366, 1373 (Fed. Cir. 2011); *see also In re Grams*, 888 F.2d 835, 840–41 (Fed. Cir. 1989); *In re Meyer*, 688 F.2d 789, 794–95 (CCPA 1982); *Elec. Power Group, LLC v. Alstom S.A.*, 830 F. 3d 1350, 1354–1354 (Fed. Cir. 2016) (“we have treated analyzing information by

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<sup>6</sup> *See* Spec. ¶ 13 (“Item review information may include, for example . . . numeric ratings (such as rating an item from one to five stars”).

steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category”).

Additionally, mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *See CyberSource*, 654 F.3d at 1375 (“That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.”).

Accordingly, steps (5)–(7) may alternatively be viewed to recite a mental process that can be performed in the human mind or with the aid of pen and paper. For the above reasons, we determine the claimed invention recites (1) certain methods of organizing human activity or (2) mental processes, identified as abstract ideas in the Revised Guidance, as addressed above. *See* 84 Fed. Reg. at 52.

#### *Revised Guidance Step 2A – Prong 2*

Although the claimed invention recites an abstract idea including methods of organizing human activity or mental processes, we nevertheless must still determine whether the abstract idea is integrated into a practical application, namely whether the claim applies, relies on, or uses the abstract idea in a manner that imposes a meaningful limit on the abstract idea, such that the claim is more than a drafting effort designed to monopolize the abstract idea. *See* Revised Guidance, 84 Fed. Reg. at 54–55. To this end, we (1) identify whether there are any additional recited elements beyond the abstract idea, and (2) evaluate those elements individually and collectively to

determine whether they integrate the exception into a practical application.  
*See Id.*

Here, (1) an *electronic data store*; (2) a *computing system comprising one or more computing devices*; and (3) a *computer-readable non-transitory storage medium* are the only recited elements beyond the abstract idea, but these additional elements do not integrate the abstract idea into a practical application when reading the claimed invention as a whole.

First, we are not persuaded that the claimed invention improves the computers or its components' functionality or efficiency, or otherwise changes the way those devices function, at least in the sense contemplated by the Federal Circuit in *Enfish LLC v. Microsoft Corp.*, and *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, despite Appellant's arguments to the contrary (Reply Br. 3–4, 7–8, 11–13, and 15–16). The claimed self-referential table in *Enfish* was a specific type of data structure designed to improve the way a computer stores and retrieves data in memory. *Enfish*, 822 F.3d at 1339. To the extent Appellant contends that the claimed invention uses such a data structure to improve a computer's functionality or efficiency, or otherwise change the way that device functions, there is no persuasive evidence on this record to substantiate such a contention. Rather, the additional elements (1) a data store, (2) a computer system comprising one or more computing device and (3) a computer readable medium are merely a tools used to implement the abstract idea. Spec. ¶17 (“item data store 112 . . . conventional electronic commerce systems”); ¶¶ 18–19 (“FIG. 2 depicts . . . general architecture of an item review server 120 . . . includes . . . computer hardware . . . components . . . generally conventional components . . . processing unit 204 . . . computer readable medium drive

207 . . . memory 210 . . . data store 116 . . . data store 114”), FIG. 2 (204 “processing unit”, 120 “server”, 114 “review data store”, 116, “user data store”, 207 “computer readable medium drive”).

Furthermore, in *Core Wireless*, the recited *user interface* was “directed to an improved *user interface for computing devices*” because the claims required that the device applications exist in a particular state, “*rather than using conventional user interface methods* to display a generic index on a computer” (emphasis added). *Id.* at 1362–1363. Unlike the claimed invention in *Core Wireless*, the claimed invention does not recite an interface that is required to exist in a particular state. Rather, the claimed invention merely use a generic computing system to generate tailored data.

Appellant further argues dependent claims 11 and 16 recite an improvement in speed and efficiency of a computer related technology for the same reasons presented for claim 1, citing *Core Wireless*, discussed *supra*. Reply Br. 11, 15. Appellant argues additionally recited steps of “presenting information identifying at least a subset of the plurality of items that match the search request” (claim 11) and “generating a user interface for display, wherein the user interface includes (a) an indication of the weighted average review for the item, and (b) a relevant review of the item, wherein the relevant review is identified based on the determined sort order” (claim 16) results in an improvement to computer related technology. *Id.*

However, these limitations are insignificant post-solution activity that merely outputs the results of the abstract idea. *See Flook*, 437 U.S. at 590 (insignificant post-solution activity held insufficient to impart patentability); *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1354–55 (“merely presenting the results of abstract processes of collecting and

analyzing information, without more . . . is abstract as an ancillary part of such collection and analysis”); *see also CyberSource*, 654 F.3d at 1371 (discussing *Flook*). *Accord* Revised Guidance, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(g)). Furthermore, unlike *Core Wireless*, these limitations fail to recite a physical display screen in an electronic device that presents applications required to “exist in a particular state” on the display screen, as was required in the claimed invention in *Core Wireless*. 880 F.3d at 1362–1363.

Additionally, dependent claims 2 (depending from claim 1), 4–10 (depending from claim 3), 13–15 and 17 (depending from claim 12) and 19–23 (depending from claim 18) do not include further additional elements outside of the abstract idea beyond the additional elements recited in the independent. For the above-stated reasons, we determine the additional elements recited in the claimed invention, beyond the judicial exceptions, whether considered alone or in combination, do not integrate the abstract idea into a practical application. *See* Reply Br. 10, 14, and 18; *see also* 37 C.F.R. § 41.37(c)(1)(iv).

*Revised Guidance, Step 2B*

Under the Revised Guidance, if a claim: (1) recites a judicial exception, and (2) does not integrate that exception into a practical application, we then look to whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or, simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *See* Revised Guidance, 84 Fed. Reg. at 56.

Appellant argues the Examiner failed to provide a factual finding that additional elements outside of the judicial exception are well understood, routine or conventional, required under *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018). Reply Br. 5–6, 8–9, 13, and 17. A *Berkheimer* factual finding is required for *additional elements* or a *combination of additional elements* outside of the identified abstract idea. See *Berkheimer Memo*<sup>7</sup>, p. 2 (“the *Berkheimer* decision . . . does provide clarification as to the inquiry into whether an *additional element (or combination of additional elements)* represents well-understood, routine, conventional activity” (emphasis added)).

Here, the Examiner found that the additional elements outside of the abstract idea were an “electronic data store” and a “computing system comprising one or more computing devices”. Ans. 5, 9, 13, and 16–17. Additionally, Appellant argues “determining a weighted rating” is an additional element. Reply Br. 6. However, the Examiner made a determination that the weighted rating limitation was part of the abstract idea. Ans. 7–8, 12–13, 15–16. We agree with the Examiner that a weighted rating determination is part of the abstract idea, as discussed *supra*. The Examiner further found these additional elements were generic, and recited at a high level of generality. *Id.* We further determine the “computer-readable non-transitory storage medium”, recited in claims 18–23, are additional elements outside of the abstract idea.

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<sup>7</sup> Memorandum on *Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (Berkheimer v. HP, Inc.)* (Apr. 19, 2018) available at: <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF>

As noted *supra*, we determine that the additional elements are generic computer components and that the remaining claim limitations fail to recite a technological improvement. With respect to the additional elements, Appellant admits in the Specification that these additional elements are “conventional”. Spec. ¶¶ 17–19, FIG. 2. As noted in *Berkheimer*:

[N]ot every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry. *See, e.g., Content Extraction*, 776 F.3d at 1349 (patent owner conceded the argued inventive concept “was a routine function of scanning technology at the time the claims were filed”); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (patent owner argued an “interactive interface” is “a specific application of the abstract idea that provides an inventive concept” and did not dispute that the computer interface was generic)

*Berkheimer*, 881 F.3d 1360, 1368.

Accordingly, on the record before us, we disagree with Appellant that the claims add a specific limitation beyond the judicial exception that is not “well-understood, routine, [and] conventional” in the field (*see* MPEP § 2106.05(d)). We find no reversible error in the Examiner’s determination that the additional element reciting a processor executing automated process steps is nothing more than a generic element. *See* Ans. 5, 9, 13, and 16–17. In fact, as noted *supra*, the Specification supports the Examiner’s finding that additionally recited elements are generic computer elements performing generic computer functions, by admitting the conventional nature of such elements. Spec. ¶¶ 17–19, FIG. 2.

Furthermore, the claims do not sufficiently recite how additional elements reciting an “electronic data store”, a “computing system comprising one or more computing devices” and a “computer-readable non-

transitory storage medium” leads to an improvement in computer database technology through some “non-conventional and non-generic arrangement of known, conventional pieces.” *BASCOM*, 827 F.3d at 1349–52.

Appellant does not argue dependent claims 4–10, 13–15, 17, and 19–23 separately with particularity, but assert the rejection of those claims should be withdrawn for at least the same reasons as argued for the independent claims. Reply Br. 10, 14, and 18. In light of the foregoing, we conclude that each of claims 1–23, considered as a whole, are directed to a patent-ineligible abstract idea that is not integrated into a practical application, and does not include an inventive concept.

Accordingly, for the reasons discussed above, we sustain the Examiner’s rejection under 35 U.S.C. § 101 of claims 1–23.<sup>8</sup>

#### ANTICIPATION AND OBVIOUSNESS REJECTIONS ISSUE

Under 35 U.S.C. § 102(a), has the Examiner erred in (1) rejecting independent claim 3 by finding Pinckney discloses the disputed limitations “*determine an environment similarity score associated with the review, wherein the environment similarity score is determined based at least in part by comparing the one or more environment attributes associated with the geographic location of the user and the one or more environment attributes associated with the geographic location of the reviewer*” (hereinafter “L1”); and “*generate a weighted rating for the item, wherein the weighted rating is*

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<sup>8</sup> To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

*generated based at least in part by assigning a weight to each of the plurality of reviews, wherein the weight assigned to each review is based at least in part on the environment similarity score determined for the review”* (hereinafter “L2”); under 35 U.S.C. § 103(a), has the Examiner erred in (2) rejecting independent claim 1 by finding the combined teachings of Pinckney in view of Lerner teach or suggest limitation L1 and limitations similar to L2?; (3) rejecting independent claims 12 by finding the combined teachings of Pinckney in view of Franson teach or suggest limitations substantially similar to L1 and L2?; and (4) rejecting independent claims 12 and 18 by finding the combined teachings of Pinckney in view of Franson teach or suggest limitations substantially similar to L1 and L2?

## ANALYSIS

### *Rejection B of claims 3–8 and 11 under 102(a)*

In rejecting claims 3–8 and 11, the Examiner finds Pinckney discloses determining an environment similarity score based on a comparison of respective environment attributes associated with a geographic location of a user and a geographic location associated with a reviewer, which the Examiner maps to the limitation

[L1] determine an environment similarity score associated with the review, wherein the environment similarity score is determined based at least in part by comparing the one or more environment attributes associated with the geographic location of the user and the one or more environment attributes associated with the geographic location of the reviewer

recited in independent claim 3 (bracketed indicator added). Act. 3–6, 26; Ans. 21–22 (citing Pinckney ¶¶ 82, 131, 141, 152–155, 168, 199–202, 209, 214–218, 237, 249, 259, 271, and 273).

The Examiner further finds Pinckney discloses generating a weighted rating for an item by assigning a weight to each of a plurality of reviews, wherein assigning weight is based on the environment similarity score recited in L1, which the Examiner maps to the limitation

[L2] generate a weighted rating for the item, wherein the weighted rating is generated based at least in part by assigning a weight to each of the plurality of reviews, wherein the weight assigned to each review is based at least in part on the environment similarity score determined for the review recited in independent claim 3 (bracketed indicator added). Act. 5–6, 25; Ans. 19–22 (citing Pinckney ¶¶ 141, 152–155, 168, 199–202, 208, 209, 214–216, 222–223, 249, and 273). We agree with the Examiner.

First, Appellant argues Pinckney fails to disclose limitation L1, because, although Pinckney does disclose “weather”, Pinckney fails to disclose using weather in the context of an environmental similarity score. App. Br. 13. Appellant further argues that although Pinckney suggests determining a similarity between a user and other users based on a number of factors, “there is no suggestion that this takes into account similarities in weather or other environment attributes between a geographic location of a user and a geographic location of a reviewer.” *Id.* We disagree with the Appellant.

As noted by the Examiner (Ans. 21–22, citing i.e., ¶¶ 168, 199–202 of Pinckney), Pinckney discloses matching users according to a degree of similarity between them, which can be “computed” or “ranked” based on contextual information of the users, wherein one of the users can be a reviewer of a product:

the present invention may facilitate *matching by user similarity* . . . [f]or example . . . provide a *ranked list of other . . . users* who

have similar tastes over all or in some specific way . . . *user similarity may be computed* via asking a user questions about themselves, looking at their social graph, using *context like their location, IP address, time, and the like* . . . [f]or example . . . *users* who have *written reviews* on Amazon to find users . . . who are *most like me* . . . in order to give me a laptop recommendation. [T]he present invention may facilitate real-time personalization, such as making recommendations that immediately reflect new information from a *user* . . . their *context* such as *changing location etc.* to *re-rank recommendations* or otherwise improve results. [T]he present invention may *match* based on *context*, such as *location, time, weather, social graph, and the like* . . . this process may then be used in a mobile application that has access to location data via GPS.

Pinckney ¶¶ 199–202 (italics added).

Pinckney further discloses the *contextual information* used to determine a degree of similarity between users, referred to above, includes “the weather at the user’s location”. Pinckney ¶ 168. Accordingly, Pinckney discloses determining “environment similarity” (i.e., computed and ranked similarity) based on a comparison of “environment attributes” (i.e., weather) associated with a geographic location of a user and a geographic location associated with a reviewer (i.e., weather at the users location), recited in L1. Additionally, we find Appellant’s contention that ¶ 202 of Pinckney does “not select[] a similar user” (App. Br. 13) unavailing since Pinckney refers to *matching* based on *context* to refer to the matching of users based on similarity rather than “selecting a recommendation” (i.e., Pinckney ¶¶ 168, 199–201). Furthermore, ¶ 202 of Pinckney states “the present invention may *match* based on *context*, such as location, time, weather, *social graph*, and the like” (emphasis added). Pinckney explicitly discloses that *contextual matching*, based on social graphs for example,

occurs between users rather than a selectable recommendation and a user. Pinckney ¶ 199.

Second, with respect to L2, we find Appellant’s argument (App. Br. 10–12, Reply Br. 19) that Pinckney does not weight different reviews for the same item, but rather, only discloses recommending different things to do (i.e. go to a museum or some other activity) unpersuasive. We agree with the Examiner (Act. 19–20, citing i.e., ¶¶ 209, 214–216 of Pinckney) that Pinckney provides multiple disclosures of weighting different reviews for the same item. For example, Pinckney discloses a response provided to a user recommending a product, includes a list of reviews, wherein the reviews are sorted by each review author’s similarity to the user:

The response may provide a recommendation for *a product . . .* the response provides information to the user that shows *the second user as a similar person . . .* the query may be a search request, and the response may be a search result ranked according to the search result selections *of the at least second user . . .* information may consist of at least one of product information . . . a *review*, comments, and *ratings . . .* [t]he response may be *a list of reviews sorted by a review author's similarity to the user reading the reviews.*

Pinckney ¶ 209 (italics added).

Pinckney provides further support for the Examiner’s findings that multiple reviews from similar users are generated with respect to a single item. “[A] user . . . may want to know what other *similar users* thought of *some product, service, person, event*, and the like . . . provide reviews . . . from similar users”. Appellant argues that “ranking” a set of items or search results does not teach or suggest generating a “weighted rating” for a single item. As discussed *supra*, Pinckney discloses generating a weighted set of reviews for an item based a user’s environmental attribute similarity to a

reviewer (i.e., Pinckney ¶¶ 209, 214–216). Furthermore, Appellant does not provide a limiting definition for “rating” that would exclude such the disclosure in Pinckney from anticipating a “weighted rating”. For example, the Specification indicates a “rating” could be a “numeric rating”, a number of users that have found a review helpful, a date the review was submitted by a reviewer or “other information” (Spec. ¶ 13) and that the process of generating a “weight” for a review encompasses determining relative similarity scores for each review. Spec. ¶ 34 (“ranking module 125 may determine a given environment attribute as having a relatively high weight in determining a similarity score for a review”). Accordingly, Pinckney’s disclosure of a ranked, sorted and weighted reviews (i.e., Pinckney ¶¶ 141, 201, 209, 214–216, 249) anticipates the limitation “weighted rating”.

Additionally, Appellant cites *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015) to argue that because the Examiner uses “citations to different aspects or embodiments of Pinckney”, the anticipation rejection is improper. Reply Br. 20. However, the authority cited by Appellant does not support the conclusion citing to different aspects in a single reference results in an improper anticipation rejection. Rather, *Kennametal* upheld an anticipation rejection where there was “no evidence” in the reference of actual performance of combining two elements required in the rejected claim because a reference disclosure can anticipate a claim even if the reference does not describe “the limitations arranged or combined as in the claim, if a person of skill in the art, reading the reference, would ‘at once envisage’ the claimed arrangement or combination.” 780 F.3d at 1381; *Accord* MPEP 2132.02, Section III.

For the above-stated reasons, we are not persuaded by Appellant's arguments that the Examiner erred in finding the disclosure of Pinckney anticipates the disputed features of claim 3. Therefore, we sustain the 35 U.S.C. § 102(a) rejection of independent claim 3 and dependent claims 4–8 and 11, which are not argued separately with sufficient particularity. *See* App. Br. 14.<sup>9</sup>

*Rejection C of claims 1–2 under 103(a)*

With respect to independent claim 1, Appellant repeats the same arguments discussed in *Rejection B* with respect to disputed limitations L1 and L2. App. Br. 25–26. Accordingly, we find this argument unpersuasive for the reasons discussed *supra*.

Additionally, we find Appellant's argument (App. Br. 26) that Lerner does not disclose reviews of an item unavailing since the Examiner cites Pinckney, rather than Lerner as disclosing this limitation. Act. 20–21. Additionally, Appellant does not argue the Examiner's modification of Pinckney by Lerner in the obviousness rejection is improper.

Accordingly, we are not persuaded by Appellant's arguments that the Examiner erred in finding the combined teachings and suggestions of Pinckney and Lerner render obvious the disputed features of claim 1. Therefore, we sustain the 35 U.S.C. § 103(a) rejection of independent claim 1 and dependent claim 2, which is not argued separately with sufficient particularity. *See* App. Br. 27.

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<sup>9</sup> To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

*Rejection D of claims 9, 10, and 12–23 under 103(a)*

With respect to dependent claim 9, Appellant repeats the same arguments discussed in *Rejection B* with respect to disputed limitations L1 and L2. App. Br. 15–16. With respect to dependent claim 10, Appellant repeats the same arguments discussed in *Rejection B* with respect to disputed limitation L1 and L2. App. Br. 16. With respect to independent claim 12, Appellant repeats the same arguments discussed in *Rejection B* with respect to disputed limitation L2. App. Br. 17–18 (“as discussed above with reference to Claim 3, the various recommendations in Pinckney are not indicated as being a plurality of recommendations for a single item, but instead as each being a recommendation for a user to do a different activity or go to a different place”). With respect to independent claim 18, Appellant repeats the same arguments discussed in *Rejection B* with respect to disputed limitation L1 (App. Br. 22–23) and L2 (App. Br. 19–22). Accordingly, we find these arguments unpersuasive for the reasons discussed *supra*.

Additionally, we disagree with Appellant’s arguments that although Franson may disclose a weighted average rating (App. Br. 15–16), Franson fails to teach: (1) relating the weighted average rating to a geographic location (App. Br. 15–16, arguing claim 9); (2) a relevance scores for reviews (App. Br. 18–19, arguing claim 12); (3) one or more environmental attributes of the geographic location associated with the reviewer (App. Br. 23–24, arguing claim 18) because for each of arguments (1)–(3), the Examiner cites Pinckney, rather than Franson as disclosing the disputed limitations. Act. 8–9 (disputed features of argument (1)); 9–11 (disputed features of argument (2)); 14–16 (disputed features of argument (3)).

Furthermore, for each of claims 9, 10, 12 and 18, Appellant does not argue the Examiner's modification of Pinckney by Franson in the obviousness rejection is improper. *See generally*, App. Br.

Accordingly, we are not persuaded by Appellant's arguments that the Examiner erred in finding the combined teachings and suggestions of Pinckney and Franson render obvious the disputed features of claims 9, 10, 12, or 18. Therefore, we sustain the 35 U.S.C. § 103(a) rejection of dependent claims 9 and 10 and the 35 U.S.C. § 103(a) rejection of independent claims 12 and 18.

Therefore, we sustain the 35 U.S.C. § 103(a) rejection of claims 9, 10, 12, and 18 and dependent claims 13–17 and 19–23, which are not argued separately with sufficient particularity.<sup>10</sup> *See* App. Br. 19, 24.

#### DECISION

We affirm the Examiner's rejection of claims 1–23 under 35 U.S.C. § 101.

We affirm the Examiner's anticipation rejection of claims 3–8 and 11 under 35 U.S.C. § 102(a).

We affirm the Examiner's obviousness rejection of claims 1–2, 9, 10, and 12–23 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with

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<sup>10</sup> To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

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this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED