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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* NEHA BANSAL, MICHAEL R. BESSE, and  
RAMON RAMIREZ

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Appeal 2017-008521  
Application 13/891,761<sup>1</sup>  
Technology Center 3600

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Before PHILLIP J. KAUFMANN, LARRY J. HUME, and  
JUSTIN BUSCH, *Administrative Patent Judges*.

HUME, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the Final Rejection of claims 1–20, which are all claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> According to Appellants, the real party in interest is Oracle International Corporation. App. Br. 3.

STATEMENT OF THE CASE<sup>2</sup>

*The Invention*

Appellants' disclosed embodiments and claimed invention are "directed generally to a computer system, and in particular to a computer system that generates retail promotion baselines." Spec. ¶ 1.

*Exemplary Claim*

Claim 1, reproduced below, is representative of the subject matter on appeal:

1. A computer readable medium having instructions stored thereon that, when executed by a processor, cause the processor to generate a retail promotion baseline, the generating comprising:

receiving sales data for a target product, the sales data including first sales data and second sales data, the first sales data occurring during a first time period before a promotion time period, and the second sales data occurring during a second time period after the promotion time period;

assigning first weights to the first sales data, the first weights exponentially increasing from the oldest first sales data to the newest first sales data;

exponentially weighting the first sales data by applying the first weights to the first sales data;

assigning second weights to the second sales data, the second weights exponentially decreasing from the oldest second sales data to the newest second sales data;

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<sup>2</sup> Our decision relies upon Appellants' Appeal Brief ("App. Br.," filed Feb. 7, 2017); Reply Brief ("Reply Br.," filed May 22, 2017); Examiner's Answer ("Ans.," mailed Mar. 23, 2017); Final Office Action ("Final Act.," mailed Oct. 19, 2016); and the original Specification ("Spec.," filed May, 10, 2013).

exponentially weighting the second sales data by applying the assigned weights to the second sales data; and calculating the retail promotion baseline based upon the exponentially weighted first and second sales data, the retail promotion baseline corresponding to an amount of sales for the target product before and after the promotion time period.

*Rejection on Appeal*

Claims 1–20 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 2.

CLAIM GROUPING

Based on Appellants' arguments (App. Br. 6–15) and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of the patent-ineligible subject matter rejection of claims 1–20 on the basis of representative claim 1.<sup>3</sup>

ISSUE

Appellants argue (App. Br. 6–15; Reply Br. 2–3) the Examiner's rejection of claim 1 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter is in error. These contentions present us with the following issue:

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<sup>3</sup> "Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately." 37 C.F.R. § 41.37(c)(1)(iv). In addition, when Appellants do not separately argue the patentability of dependent claims, the claims stand or fall with the claims from which they depend. *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

Under our governing case law concerning 35 U.S.C. § 101, did the Examiner err in concluding claim 1 is directed to a judicial exception, i.e., an abstract idea, without significantly more, and thus is patent-ineligible under § 101?

#### ANALYSIS

In reaching this decision, we consider all evidence presented and all arguments actually made by Appellants. To the extent Appellants have not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv).

We disagree with Appellants' arguments with respect to claims 1–20 and, unless otherwise noted, we incorporate by reference herein and adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken, and (2) the reasons and rebuttals set forth in the Examiner's Answer in response to Appellants' arguments. We highlight and address specific findings and arguments regarding claim 1 for emphasis as follows.

#### *Alice Framework*

Section 101 provides that anyone who "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. 35 U.S.C. § 101. The Supreme Court has repeatedly emphasized that patent protection should not extend to claims that monopolize "the basic tools of scientific and technological work." *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012); *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014).

Accordingly, laws of nature, natural phenomena, and abstract ideas are not patent-eligible subject matter. *Alice Corp.*, 134 S. Ct. at 2354.

The Supreme Court's two-part *Alice* framework guides us in distinguishing between patent claims that impermissibly claim the "building blocks of human ingenuity" and those that "integrate the building blocks into something more." *Alice Corp.*, 134 S. Ct. at 2354 (internal quotation marks, citation, and bracketing omitted). First, we "determine whether the claims at issue are directed to [a] patent-ineligible concept[]." *Id.* at 2355. If so, we "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." *Id.* at 2357 (quoting *Mayo*, 566 U.S. at 72, 79). Although the two steps of the *Alice* framework are related, the "Supreme Court's formulation makes clear that the first-stage filter is a meaningful one, sometimes ending the § 101 inquiry." *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). We note the Supreme Court "has not established a definitive rule to determine what constitutes an 'abstract idea'" for the purposes of step one. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016) (citing *Alice*, 134 S. Ct at 2357).

In *Enfish*, our reviewing court held claims directed to a self-referential logical model for a computer database patent-eligible under step one of *Alice*. *Enfish*, 822 F.3d at 1330. The disclosed technique enabled faster searching and more effective storage of data than previous methods. *Id.* at 1333. The court found the claims directed to "a specific improvement to the way computers operate, embodied in the self-referential table" (*id.* at 1336), and explained that the claims are "not simply directed to *any* form of storing tabular data, but instead are specifically directed to a *self-referential table*

for a computer database" that functions differently than conventional databases. *Id.* at 1337.

In *McRO*, the claims were not held to be abstract because they recited a "specific . . . improvement in computer animation" using "unconventional rules that relate[d] sub-sequences of phonemes, timings, and morph weight sets." *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1302–03, 1307–08, 1314–15 (Fed. Cir. 2016). In *McRO*, "the incorporation of the claimed rules, not the use of the computer," improved an existing technological process. *Id.* at 1314.

However, our reviewing court has held claims ineligible as directed to an abstract idea when they merely collect electronic information, display information, or embody mental processes that could be performed by humans. *Elec. Power Grp.*, 830 F.3d at 1353–54 (collecting cases). At the same time, "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 566 U.S. at 71. Abstract ideas may include, but are not limited to, fundamental economic practices, methods of organizing human activities, an idea of itself, and mathematical formulas or relationships. *Alice* 134 S. Ct. at 2355–57. Under this guidance, we must therefore ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful. *Id.* at 2354 ("[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law.").

Under the "abstract idea" step we must evaluate "the 'focus of the claimed advance over the prior art' to determine if the claim's 'character as a whole' is directed to excluded subject matter." *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (internal citation

omitted). If the claims are not directed to a patent-ineligible concept, the inquiry ends. *See Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1262 (Fed. Cir. 2017). If the concept is directed to a patent-ineligible concept, we proceed to the "inventive concept" step. For that second step, we must "look with more specificity at what the claim elements add, in order to determine 'whether they identify an "inventive concept" in the application of the ineligible subject matter' to which the claim is directed." *Affinity Labs*, 838 F.3d at 1258 (quoting *Elec. Power Grp.*, 830 F.3d at 1353).

*Alice Step 1 — Abstract Idea*

We note, "[w]hether a patent claim is drawn to patent-eligible subject matter is an issue of law that is reviewed *de novo*." *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1331 (Fed. Cir. 2010).

The Examiner concludes, "[c]laims 1-20 are directed to the abstract idea of generating a retail promotion baseline, which is a fundamental economic practice, and by exponentially weighting sales data around the promotion, which uses mathematical formulas. The exponentially weightings merely employ mathematical formulas to manipulate the sales data in order to generate a retail promotion baseline." Final Act. 2.

Appellants generally contend the claims are not directed to an abstract idea (App. Br. 7) and, more specifically, Appellants argue:

[T]he final Office Action acknowledges that "generating a retail promotion baseline" is a concept that has **not** been identified as an abstract idea by the courts. And for good reason -- a comparison of "generating a retail promotion baseline" to the abstract ideas identified by the courts shows that there are **no similarities**. *See, e.g., December 2016 Quick Reference Sheet* at Page 2 (table with listing of court-identified abstract ideas).

Furthermore, the final Office Action also fails to cite a court decision that identifies "generating a retail promotion baseline" as an abstract idea, as directed by the USPTO.

App. Br. 7–8 (footnote omitted).

In addition, Appellants contend, "the final Office Action fails to provide a reasoned rationale that explains why 'generating a retail promotion baseline' is similar to the abstract idea identified in the *Digitech* decision.

App. Br. 8. Appellants also argue:

Here, in addition to assigning weights and exponentially weighting the first and second data sets, the claims recite "calculating the retail promotion baseline based upon the exponentially weighted first and second sales data." Importantly, calculating the retail promotion baseline is the "additional limitation" identified in *Digitech* that distinguishes the claimed process from the alleged abstract idea. Furthermore, "calculating" an additional, specific quantity based on weighted data is not the same as "organizing" those data.

App. Br. 10. Additionally,

the final Office Action has failed to provide evidence that the conventional process for generating a retail promotion baseline is the same as the specific process required by the instant claims. And for good reason — the instant claims were found to be allowable over the prior art, which demonstrates that the *ordered combination* of the claimed steps use *unconventional methods* for generating a retail promotion baseline.

App. Br. 11.

Appellants' argument concerning the absence of evidence supporting the § 101 rejection does not persuade us of Examiner error. "Patent eligibility under § 101 presents an issue of law." *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1340 (Fed. Cir. 2013). There is no requirement that an examiner cite evidentiary support to

conclude that a claim is directed to a patent-ineligible concept, such as an abstract idea in every case. Unlike an evidence-based rejection under 35 U.S.C. § 102 and/or 35 U.S.C. § 103, the courts consider the determination of whether a claim is eligible (which involves identifying whether an exception such as an abstract idea is being claimed) to be a question of law. *See, e.g., In re Roslin Inst.*, 750 F.3d, 1333, 1335 (Fed. Cir. 2014); *Accenture Global Services, GmbH v. Guidewire Software*, 728 F.3d 1336, 1340–41 (Fed. Cir. 2013); *Fort Properties, Inc. v. American Master Lease LLC*, 671 F.3d 1317, 1320 (Fed. Cir. 2012); *Cybersource*, 654 F.3d at 1369; *SiRF Tech.*, 601 F.3d at 1331; *In re Ferguson*, 558 F.3d 1359, 1363 (Fed. Cir. 2009); *In re Bilski*, 545 F.3d 943, 951 (Fed. Cir. 2008) (*en banc*), *aff'd*, 561 U.S. 593 (2010). Accordingly, courts do not rely on evidence that a claimed concept is a judicial exception, and in most cases resolve the ultimate legal conclusion on eligibility without making any factual findings. *See also* MPEP § 2106.07(a) (III) (collecting cases).

Under the "abstract idea" step we must evaluate "the 'focus of the claimed advance over the prior art' to determine if the claim's 'character as a whole' is directed to excluded subject matter." *Affinity Labs*, 838 F.3d at 1257 (citation omitted).

Turning to the claimed invention, claim 1 recites: "[a] computer readable medium having instructions stored thereon that, when executed by a processor, cause the processor to generate a retail promotion baseline." Claim 1 (preamble).

Medium claim 1 limitations also require the generating functions include:

(a) "receiving sales data . . . including first sales data and second sales data [occurring during different time periods]";

(b) "assigning first [exponentially increasing] weights to the first sales data";

(c) "exponentially weighting the first sales data by applying the first weights";

(d) "assigning second [exponentially decreasing] weights to the second sales data;"

(e) "exponentially weighting the second sales data by applying the assigned weights;" and

(f) "calculating the retail promotion baseline based upon the exponentially weighted first and second sales data."

Our reviewing courts have often identified abstract ideas by referring to earlier precedent, e.g., by comparing a claimed concept to the concepts previously identified as abstract ideas by the courts. *Amdocs (Israel), Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016); *Enfish*, 822 F.3d. at 1334. For example, in *Alice*, the Supreme Court identified the claimed systems and methods as describing the concept of intermediated settlement, and then compared this concept to the risk hedging concept identified as an abstract idea in *Bilski*. Because this comparison revealed "no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here," the Court concluded that the concept of intermediated settlement was an abstract idea. *Alice*, 134 S. Ct. at 2356–57. Similarly, the Federal Circuit in *Amdocs* compared the claims at issue with "eligible and ineligible claims of a similar nature from past cases" as part of its eligibility analysis. 841 F.3d at 1295–1300.

The Examiner rebuts Appellant's contention (App. Br. 7–8) that no pertinent case law was cited in support of the conclusion that the claimed subject matter is directed to an abstract idea. Ans. 3. In further support of the Examiner's rebuttal, we note the Examiner's finding in the Final Action, i.e., "[t]his idea is similar to the basic concept of manipulating information using mathematical relationships found to be an abstract idea by the courts. Such as *Digitech* . . . which organizes information through mathematical correlations, the current invention organizes promotion data using mathematical correlations." Final Act. 2–3 (citing *Digitech Image Techs., LLC v. Elec. for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014)).<sup>4</sup>

In *Digitech*, "[t]he method in the [patent at issue] claims an abstract idea because it describes a process of organizing information through mathematical correlations and is not tied to a specific structure or machine." *Digitech*, 758 F.3d at 1350. Our reviewing court further held in *Digitech*:

The above claim recites a process of taking two data sets and combining them into a single data set, the device profile. The two data sets are generated by taking existing information—i.e., measured chromatic stimuli, spatial stimuli, and device response characteristic functions—and organizing this information into a new form. The above claim thus recites an ineligible abstract process of gathering and combining data that does not require input from a physical device . . . . the two data

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<sup>4</sup> In the Answer, the Examiner concludes "the claims are also analogous to *Maucorps*." Ans. 4 (citing *In re Maucorps*, 609 F.2d 481 (Fed. Cir. 1979)). While we do not necessarily disagree with the Examiner's conclusion, we note there are various ways to analogize appealed claims to claims that have been previously-determined as being directed to an abstract idea, and there is also considerable overlap between the general categories of abstract ideas, i.e., "fundamental economic practice," "methods of organizing human activity," "an idea 'of itself,'" and "mathematical relationships/formulas." We review the claim rejection *de novo*.

sets and the resulting device profile are ineligible subject matter. Without additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible. "If a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory."

*Digitech*, 758 F.3d at 1351 (quoting *Parker v. Flook*, 437 U.S. 584, 595 (1978) (internal quotations omitted)).

Under step one, we agree with the Examiner that the invention claimed in independent claim 1 is directed to an abstract idea, i.e., organizing and manipulating information through mathematical correlations, which we also conclude may more generally be considered as relating to organizing or analyzing information in a way that can be performed mentally, i.e., in a way that is analogous to human mental work. *See* Final Act. 2–3; Ans. 3–4.

As the Specification discloses:

One embodiment is a system for generating a retail promotion baseline. The system receives historical sales data for a target product. The sales data reflects sales for the target product that occurred during a first time period and a second time period, the first time period occurring before a promotion, and the second time period occurring after the promotion. The system exponentially weights the sales data. The sales data reflecting sales which occurred closer to the promotion is weighted more heavily than the sales data reflecting sales which occurred further from the promotion. The system calculates the retail promotion baseline based upon the exponentially weighted sales data. The retail promotion baseline corresponds to an amount of sales for the product that would occur without the promotion for the product.

Spec. ¶ 4.<sup>5</sup> We find this type of activity, i.e., generating a retail promotion baseline using weighted historical sales data, includes longstanding conduct that existed well before the advent of computers and the Internet, and could be carried out by a human 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*.").<sup>6</sup>

Our reviewing court has previously held other patent claims ineligible for reciting similar abstract concepts. For example, while the Supreme Court has enhanced the § 101 analysis since *CyberSource* in cases like *Mayo* and *Alice*, the Federal Circuit continues to "treat[ ] analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146–

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<sup>5</sup> *See also* Spec. 24 ("Abstract"):

A system for generating a retail promotion baseline receives sales data for a target product. The sales data reflects sales for the target product that occurred during a first time period and a second time period, the first time period occurring before the promotion, and the second time period occurring after the promotion. The system exponentially weights the sales data. The sales data reflect sales which occurred closer to the promotion is weighted more heavily than the sales data reflecting sales which occurred further from the promotion. The system calculates the retail promotion baseline based upon the exponentially weighted sales data. The retail promotion baseline corresponds to an amount of sales for the product absent the promotion for the product.

<sup>6</sup> *CyberSource* further guides that "a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101." *CyberSource*, 654 F.3d at 1373.

47 (Fed. Cir. 2016) (alteration in original) (quoting *Elec. Power Grp.*, 830 F.3d at 1354).

In addition, our reviewing court has concluded that abstract ideas include the concepts of collecting data, recognizing certain data within the collected data set, and storing the data in memory. *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). Additionally, the collection of information and analysis of information (e.g., recognizing certain data within the dataset) are also abstract ideas. *Elec. Power*, 830 F.3d at 1353–54 (collecting information and "analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract-idea category"). Similarly, "collecting, displaying, and manipulating data" is an abstract idea. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017). Also, collecting and comparing known information has been determined to be an abstract idea. *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067 (Fed. Cir. 2011) ("Claim 1 of the #283 patent states the idea of collecting and comparing known information"). Additionally, more recently, our reviewing court has also concluded that acts of parsing, comparing, storing, and editing data are abstract ideas. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1367 (Fed. Cir. 2018).

Appellant also alleges claim 1 is patent-eligible because its practice does not preempt practice by others. App. Br. 12–13. We agree with the Examiner's response, which we incorporate herein by reference. Ans. 7. Regarding preemption, "[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate

patent eligibility. . . . Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) ("that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract").

In support of their lack of preemption argument, Appellants argue the claims are similar to those held patent-eligible in *McRO*. App. Br. 13 (citing *McRO*, 837 F.3d 1299). However, the claims in *McRO* recited a "specific . . . improvement in computer animation" using "unconventional rules that relate[d] sub-sequences of phonemes, timings, and morph weight sets." *McRO*, 837 F.3d at 1302–03, 1307–08, 1314–15. In *McRO*, "the incorporation of the claimed rules, not the use of the computer," improved an existing technological process. *Id.* at 1314.

Other than stating, "the present claims 'incorporate[e] the specific features of the rules as claim limitations . . . [the claim] is limited to a specific process . . . and does not preempt approaches that use rules of a different structure or different techniques'" (App. Br. 13), Appellants do not identify how claim 1 improves an existing technological process. *See Alice*, 134 S. Ct. at 2358 (explaining that "the claims in *Diehr* were patent eligible because they improved an existing technological process"). Rather, claim 1 concerns generating a retail promotion baseline. In addition, Appellants do not direct us to any evidence that the claimed steps of receiving sales data,

assignment of weights, exponentially weighting the sales data, and calculating the retail promotion baseline correspond to unconventional rules.

Therefore, in agreement with the Examiner, we conclude claim 1 involves nothing more than identifying, collecting, storing, comparing, and generating data, without any particular inventive technology — an abstract idea. *See Elec. Power Grp.*, 830 F.3d at 1354.<sup>7</sup>

Accordingly, on this record, and under step one of *Alice*, we agree with the Examiner's conclusion the claims are directed to an abstract idea.

*Alice Step 2—Inventive Concept*

If the claims are directed to a patent-ineligible concept, as we conclude above, we proceed to the "inventive concept" step. For that step we must "look with more specificity at what the claim elements add, in order to determine 'whether they identify an "inventive concept" in the application of the ineligible subject matter' to which the claim is directed." *Affinity Labs*, 838 F.3d at 1258 (quoting *Elec. Power Grp.*, 830 F.3d at 1353).

In applying step two of the *Alice* analysis, our reviewing court guides we must "determine whether the claims do significantly more than simply describe [the] abstract method" and thus transform the abstract idea into patentable subject matter. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014). We look to see whether there are any "additional features" in the claims that constitute an "inventive concept," thereby rendering the claims eligible for patenting even if they are directed to an abstract idea. *Alice*, 134 S. Ct. at 2357. Those "additional features" must be

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<sup>7</sup> Merely automating previously manual processing by using computers does not qualify as an eligibility-rejection-defeating improvement. *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044 (Fed. Cir. 2017).

more than "well-understood, routine, conventional activity." *Mayo*, 566 U.S. at 79.

Limitations referenced in *Alice* that are not enough to qualify as "significantly more" when recited in a claim with an abstract idea include, as non-limiting or non-exclusive examples: adding the words "apply it" (or an equivalent) with an abstract idea;<sup>8</sup> mere instructions to implement an abstract idea on a computer;<sup>9</sup> or requiring no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.<sup>10</sup>

The Examiner concludes:

The claims recite[] the additional elements of a computer readable medium, a processor, and a memory, which are generic computing elements performing generic computing functions. The additional elements of an analyzing module, a weighting module, and a calculating module are specific technological elements which are involved in only insignificant extra solution activity and are used in a conventional fashion in the art. Looking at the elements as [a] combination does not add anything more than the elements analyzed individually.

Final Act. 3.

Evaluating representative claim 1 under step 2 of the *Alice* analysis, we agree with the Examiner that it lacks an inventive concept that transforms the abstract idea of organizing and manipulating information

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<sup>8</sup> *Alice*, 134 S. Ct. at 2357–58.

<sup>9</sup> *Alice*, 134 S. Ct. at 2357 (e.g., "simply implementing a mathematical principle on a physical machine, namely a computer" (quoting *Mayo*, 566 U.S. at 84).

<sup>10</sup> *Alice*, 134 S. Ct. at 2359: e.g., using a computer to obtain data, adjust account balances, and issue automated instructions.

through mathematical correlations into a patent-eligible application of that abstract idea. *See* Ans. 9–10.<sup>11</sup>

We note the patent eligibility inquiry may contain underlying issues of fact. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016). In particular, "[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact." *Berkheimer*, 881 F.3d at 1368.

As evidence of the conventional nature of the claimed network components and processes, we note the Examiner's citation to Appellant's Specification in paragraphs 13 and 37. For example:

Processor 22 may be any type of general or specific purpose processor. System 10 further includes a memory 14 for storing information and instructions to be executed by processor 22. Memory 14 can be comprised of any combination of random access memory ("RAM"), read only memory ("ROM"), static storage such as a magnetic or optical disk, or any other type of

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<sup>11</sup> The Examiner concludes:

Applicant has failed to provide evidence on how the instant claims, and particularly the combination of the instant claimed elements, provide an improvement or solution to an existing technological process that can be considered some more than routine or conventional. The technology recited in the claim[s], such as a processor, a computer readable medium, a memory, are just generic computer elements that perform generic computer functions as explained in paragraphs [0013] and [0037] of the specification. Furthermore, all the assigning, weighting, and calculation steps could be performed by a human with pen and paper. The use of the technology is just to automate the process.

Ans. 10.

computer readable media. System 10 further includes a communication device 20, such as a network interface card, to provide access to a network.

Spec. ¶ 13.

We agree with the Examiner that the claim limitations may be broadly but reasonably construed as reciting conventional computer components and techniques, particularly in light of Appellant's Specification, as quoted above.<sup>12</sup>

With respect to the Step 2 analysis, we agree with the Examiner because, as in *Alice*, the recitation of a "computer readable medium having instructions stored thereon that, when executed by a processor, cause the processor to generate a retail promotion baseline" by receiving and manipulating weighted sales data is simply not enough to transform the patent-ineligible abstract idea here into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2357 ("[C]laims, which merely require generic computer implementation, fail to transform [an] abstract idea into a patent-eligible invention.").

Appellants mistakenly argue:

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<sup>12</sup> During prosecution, claims must be given their broadest reasonable interpretation when reading claim language in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under this standard, we interpret claim terms using "the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification." *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

*Evidence that the claims as a whole amount to significantly more can be found in the final Office Action itself, which essentially admits that the pending independent claims recite a "non-conventional and non-generic arrangement of known, conventional pieces." As noted above, the final Office Action admits that the claims are allowable over the prior art, which means that all of the pending claims recite an inventive concept per Step 2B, as discussed in *BASCOM*.*

App. Br. 14 (emphasis added).

We find this assertion by Appellants to be erroneous with respect to the relevance of prior art in the patent-eligibility analysis because the Supreme Court emphasizes, "[t]he 'novelty' of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981) (emphasis added). Our reviewing court further guides that "[e]ligibility and novelty are separate inquiries." *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017); *see also Affinity Labs*, 838 F.3d at 1263 (holding that "[e]ven assuming" that a particular claimed feature was novel does not "avoid the problem of abstractness").

In contrast, in *BASCOM*, the claims were directed to the inventive concept of providing customizable Internet-content filtering which, under Step 2 of the Alice analysis, was found to transform the abstract idea of filtering content into a patent-eligible invention. Although the underlying idea of filtering Internet content was deemed to be abstract, under step 2 of the Alice analysis, the claims carved out a specific location for the filtering system, namely a remote Internet service provider (ISP) server, and required

the filtering system to give users the ability to customize filtering for their individual network accounts. *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016).

However, the claims in *BASCOM* were determined to be patent-eligible for reasons different than in this Appeal. In this Appeal, the underlying abstract idea is generating a retail promotion baseline using weighted historical sales data, which is directed to the abstract idea of data comparisons that can be performed mentally in the human mind and/or by pen and paper. We are not persuaded by Appellants' assertion that "[t]he claims, taken as a whole, amount to significantly more than 'organizing information through mathematical correlations.'" App. Br. 14.

Thus, we find no analogy between claim 1 and the claims of *BASCOM* and also find the character of the claims as a whole, is still directed to the abstract idea.

Accordingly, based upon the findings above, on this record, we are not persuaded of error in the Examiner's conclusion that the appealed claims are directed to patent-ineligible subject matter. Therefore, we sustain the Examiner's § 101 rejection of independent claim 1, and grouped claims 2–20, not argued separately, which fall therewith. *See Claim Grouping, supra.*

#### REPLY BRIEF

To the extent Appellants *may* advance new arguments in the Reply Brief (Reply Br. 2–3) not in response to a shift in the Examiner's position in the Answer, we note arguments raised in a Reply Brief that were not raised in the Appeal Brief or are not responsive to arguments raised in the

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Examiner's Answer will not be considered except for good cause (*see* 37 C.F.R. § 41.41(b)(2)), which Appellants have not shown.

#### CONCLUSION

Appellants have not demonstrated that the Examiner erred with respect to the patent-ineligible subject matter rejection of claims 1–20 under 35 U.S.C. § 101, and we sustain the rejection.

#### DECISION

We affirm the Examiner's decision rejecting claims 1–20.

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