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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* PHYLLIS REUTHER, DAVID KURTZ,  
and MICHAEL CONNOR

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Appeal 2018-007113  
Application 11/925,354  
Technology Center 3600

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Before BIBHU R. MOHANTY, AMEE A. SHAH, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) from the Examiner's Non-Final Rejection of claims 1–13, 15, and 17–25. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was held on March 12, 2020.

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<sup>1</sup> We use the term “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Our decision references Appellant's Appeal Brief (“Appeal Br.,” filed February 20, 2018) and Reply Brief (“Reply Br.,” filed July 3, 2018), and the Examiner's Answer (“Ans.,” mailed May 3, 2018) and Non-Final Office Action (“Non-Final Act.,” mailed June 22, 2017). Appellant identifies the real party in interest as “Mobile Content Networks, Inc.” (Appeal Br. 2).

We AFFIRM.

### CLAIMED INVENTION

Appellant's claims relate "generally to computerized techniques for information retrieval, and more particularly to techniques for determining relevant advertisements in response to queries" (Spec. ¶ 2).

Claims 1, 12, and 13 are the independent claims on appeal. Claim 1, reproduced below, with bracketed notations and some paragraphing added, is illustrative of the claimed subject matter:

1. A computer implemented method for determining relevant advertisements in response to an electronic query, the method comprising:
  - [a] receiving, via a receiving module, an electronic query from an electronic user device;
  - [b] electronically categorizing, using a query broker component, the electronic query to identify one or more advertisement sources, wherein the electronic query, before being reformatted and transmitted to the one or more advertisement sources, is classified into a category in one or more taxonomies, wherein the one or more taxonomies electronically organize an electronic advertisement source library and electronic user device characteristics;
  - [c] checking a results cache for preexisting results associated with the electronic query;
  - [d] reformatting the electronic query, using the query broker component, according to one or more advertisement source specific languages for the one or more advertisement sources;
  - [e] electronically transmitting the reformatted electronic query to the one or more advertisement sources;
  - [f] electronically merging results, using a results processor, in response to the reformatted electronic query from the one or more advertisement sources based at least in part on community data and a plurality of factors, wherein the plurality of factors include community usage patterns and a source rating

associated with at least one of the one or more advertisement sources, wherein the source rating is based on at least one of latency and uptime, wherein the results are received as a list from each of the one or more advertisement sources, wherein a subset of each list is ranked using a representative score based on scores for matching entries of the subset, wherein the representative score is used to provide a probabilistic ordering of lists during merging, wherein the lists are selected based on a corresponding representative score as a percentage of a total of representative scores for a set of lists being merged, wherein the plurality of factors further include at least one of a business relationship factor or an editorial rating, and wherein the business relationship factor indicates a business relationship between the one or more advertisement sources and a distributor; and

[g] formatting, using the results processor, the results for electronically delivering to the electronic user device, wherein the formatting is adapted to accommodate the electronic user device by truncating at least one of an item description or a title of a result such that the result is fit within a screen size limitation of the user device.

## REJECTIONS

1. Claims 1–13, 15, and 17–25 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

2. Claims 1–13, 15, 17–23, and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Guha (US 2007/0038601 A1, pub. Feb. 15, 2007), Grannan et al. (US 2007/0244750 A1, pub. Oct. 18, 2007) (“Grannan”), and Basu et al. (US 2006/0120411 A1, pub. June 8, 2006) (“Basu”).<sup>2</sup>

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<sup>2</sup> The Examiner’s inclusion of claims 14 and 16 in the statement of this rejection on page 8 of the Non-Final Office Action is presumed to be an

3. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guha, Grannan, Basu, and Jung (US 2006/0173814 A1, pub. Aug. 3, 2006).<sup>3</sup>

## ANALYSIS

### *Patent-Ineligible Subject Matter*

Appellant argues claims 1–13, 15, and 17–25 as a group. Appeal Br. 7–12; Reply Br. 2–6. We select independent claim 1 as representative. The remaining claims stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

#### A. Section 101

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 U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g., Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court’s two-part 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

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inadvertent error, as these claims were cancelled in the amendment filed January 15, 2015, and, thus, are not involved in this appeal.

<sup>3</sup> The Examiner’s reference to Gupta appears to be typographical error, as the body of the rejection of claim 1 under 35 U.S.C. § 103(a) relies on the combination of Guha, Grannan, and Basu (*see* Non-Final Act. 8), and the body of the rejection of claim 24 modifies the combination of Guha, Grannan, and Basu, as applied to independent claim 1 to incorporate Jung (*see* Non-Final Act. 19; *cf.* Appeal Br. 7).

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 waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Court held that “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the 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.* (citation omitted)

(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 (quotation marks 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.*

#### B. USPTO Section 101 Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Revised Guidance”).<sup>4</sup> “All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance.” *Id.* at 51; see also October 2019 Update at 1.

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<sup>4</sup> In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the “October 2019 Update”) (available at [https://www.uspto.gov/sites/default/files/documents/peg\\_oct\\_2019\\_update.pdf](https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf)).

Under the 2019 Revised Guidance and the October 2019 Update, 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) (“Step 2A, Prong One”); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) (“Step 2A, Prong Two”).<sup>5</sup>

2019 Revised Guidance, 84 Fed. Reg. at 52–55.

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

- (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

2019 Revised Guidance, 84 Fed. Reg. at 52–56.

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<sup>5</sup> This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Revised Guidance - Section III(A)(2), 84 Fed. Reg. 54–55.

*Step One of the Mayo/Alice Framework*

With regard to the first step of the *Mayo/Alice* framework and Step 2A, Prong One of the 2019 Revised Guidelines, 84 Fed. Reg. at 54, the Examiner determines that exemplary independent claim 1 broadly recites “a computer-implemented method (a process) for determining relevant advertisements in response to a query.” Non-Final Act. 3; Ans. 4. The Examiner considers this to be an abstract idea, inasmuch as “the claims mirror concepts or activities that were found by the courts to be representative of abstract ideas of marketing/advertising (*Alice Corp., Bilski, Ultramercial, Affinity Labs of Texas, Intellectual Ventures I*.)” Non-Final Act. 3. More particularly, the Examiner states:

[t]he method tracks a user affiliation (community usage patterns) and tracks user query data, and infers a user intent representative of user preferences by using this community and query data. The method further tracks electronic user device characteristics. The method stores advertisements and classifies (indexes) these advertisements into a category in one or more taxonomies thereby creating an advertisement source library. The method further calculates a source rating associated the advertisement sources, wherein the source rating is based on at least one of latency and uptime, and generates a ranking of scores. Using rules (the ranking), the method then correlates the above user preference data (community usage patterns and query data) against the previously indexed and ranked advertisement source library and provides a list of ranked matching advertisements to the user (*factors*); wherein this targeting effort is aimed at increasing the relevance of the offer so that a prospective consumer, when and if faced with the advertisements, will be likely to engage with said offer. These plurality of steps are only steps in the overall targeted delivery effort, and are not the underlying stand-alone concept and objective of the claimed method. Detached from the advertising concept, they serve no tangible purpose. Taking steps, in the context of this targeted marketing activity, to make an offer more relevant, thereby

creating conditions for increased purchase opportunity, aligns strongly with the long-standing concept for enabling the success (or improving the chances of success) of a commercial transaction or commercial exchange between two or more parties (certain methods of organizing human activity) and a fundamental economic practice long prevalent in our system of commerce (a building block in the modern economy) (*Alice Corp., Bilski, Ultramercial*). The claimed method for providing advertisements to a user, performs, as in the above court cases, an intermediated activity in a financial transaction between sellers (advertisers) and buyers (consumers).

*Id.* at 3–4.

In response, Appellant argues that independent claim 1 “is not directed to an abstract idea,” but instead, directed to “specific techniques and an improved way to determine relevant electronic advertising in response to an electronic query.” Appeal Br. 7; Reply Br. 2–3. According to Appellant, the Examiner erred in over generalizing the steps recited in independent claim 1 as being “directed to ‘marketing/advertising.’” Appeal Br. 9–10 (citing Non-Final Act. 3).

We are not persuaded that the Examiner erred in determining that independent claim 1 is directed to an abstract idea. The Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36. Here, it is clear from the Specification (including the claim language) that the claims

focus on an abstract idea, and not on any improvement to technology and/or a technical field.

The Specification is entitled “TECHNIQUES FOR DETERMINING RELEVANT ADVERTISEMENTS IN RESPONSE TO QUERIES,” and states that the disclosure “relates generally to computerized techniques for information retrieval, and more particularly to techniques for determining relevant advertisements in response to queries.” Spec. ¶ 2. According to the Specification, conventional “online advertisement delivery system may be based on text and data search technologies, which has provided significant practical and commercial value and also resulted in a proliferation and commoditization of advertisement search and retrieval.” Spec. ¶ 4. The Specification discloses that “[t]ext and data search technologies may be implemented in advertisement networks, which may refer to computer programs designed to index, store, and retrieve information based on instructions from the user.” *Id.* ¶ 5. The Specification describes that these advertisement networks, in response to a query, may identify content that “satisfies the query and return an ordered list of possible matches to the user as a results set.” *Id.* The Specification further describes that, in order to be successful in marketing, “an online advertisement delivering system must maintain and improve the relevance of advertising messages to the consumer.” *Id.*

The Specification identifies that federated advertisement systems may be used to submit queries “to multiple advertisement agencies and either return the most useful ad or merge the multiple ad result sets based on the relevance ranking.” *Id.* ¶¶ 7–8. The Specification notes, however, that integrating advertisements from multiple advertisement agencies may be

associated with several drawbacks related to agency requirements, scope of relevancy ranking, and duplication. *See, e.g., id.* ¶¶ 8–10. To address these drawbacks, the present invention provides a system “for determining relevant advertisements in response to queries” that both formats queries according to advertisement source specifics and merges results in response to the formatted queries based on various relevancy factors. *Id.* ¶¶ 12, 14.

Consistent with this disclosure, independent claim 1 recites a method comprising steps for (1) receiving a query, categorizing the query to identify advertisement sources, and checking for preexisting results associated with the query, i.e., “receiving ... an electronic query”, “electronically categorizing the electronic query to identify one or more advertisement sources”, and “checking [] for preexisting results associated with the electronic query” (steps [a]–[c]); (2) reformatting and transmitting the query according to advertisement source specifications, i.e., “reformatting the electronic query according to one or more advertisement source specific languages for the one or more advertisement sources” and “electronically transmitting the reformatted electronic query to the one or more advertisement sources” (steps [d], [e]); (3) merging results from the advertisement sources, i.e., “electronically merging results in response to the reformatted electronic query from the one or more advertisement sources” (step [f]); and (4) formatting the results, i.e., “formatting the results for electronically delivering to the electronic user device” (step [g]).

Upon reviewing the Specification and independent claim 1, as summarized above, we agree with the Examiner that independent claim 1 recites broadly “determining relevant advertisements in response to a query” (Non-Final Act. 3), which can be characterized as a certain method of

organizing human activity. Here, independent claim 1 receives and processes a query for transmission to advertisement sources (steps [a]–[e]) and then merges and formats advertising content results (steps [f]–[g]). In other words, claim 1 broadly recites a method for determining relevant advertising by receiving, categorizing, checking, reformatting, transmitting, merging, and formatting advertising information.

Thus, it is clear that independent claim 1 recites a form of advertising that, under the 2019 Revised Guidance, falls under the category of “[c]ertain methods of organizing human activity” and more specifically “commercial or legal interactions (including agreements in the form of ... advertising, marketing or sales activities or behaviors; business relations).”

2019 Revised Guidance, 84 Fed. Reg. at 52. Accordingly, independent claim 1 recites an abstract idea. *Cf. Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (claim for distributing copyrighted media over the Internet to consumers in exchange for viewing an advertisement was directed to the abstract idea of “displaying an advertisement for access to a copyrighted media”); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1339–40 (Fed. Cir. 2017) (claim for manipulating XML documents by organizing, identifying, mapping, defining, and modifying data was directed to the abstract idea of “collecting, displaying, and manipulating data”); and *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351–54 (Fed. Cir. 2016) (claim for detecting events by receiving, detecting, analyzing, displaying, accumulating, and updating data, and deriving a composite indicator from that data was directed to the abstract idea of “collecting information, analyzing it, and displaying certain results of the collection and analysis”).

Having concluded that claim 1 recites a judicial exception, i.e., an abstract idea, we turn to the Step 2A, Prong Two of the 2019 Revised Guidance and determine whether the claim integrates the recited judicial exception into a practical application of the judicial exception. Here we look to see if, for example, any additional elements of the claim (i) reflect an improvement in the functioning of a computer or to another technological field, (ii) implement the judicial exception with, or by use of, a particular machine, (iii) effect a transformation or reduction of a particular article to a different state or thing, or (iv) use the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment. *See* 2019 Revised Guidance, 84 Fed. Reg. at 55; *see also* MPEP §§ 2106.05(a)–(c), (e)–(h).

Here, the only additional elements recited in claim 1 beyond the abstract idea are “an electronic user device” configured to receive a query, “a query broker component” configured to categorize and reformat data, “a results cache” implicitly configured to store preexisting results, and “a results processor” configured to merge results and to format results. However, these additional elements are described generically in the Specification. *See, e.g.*, Spec. ¶¶ 23, 76–77, 112–114. We find no indication in the Specification, nor does Appellant direct us to any indication, that the steps recited in claim 1 invoke any assertedly inventive programming, require any specialized computer hardware or other inventive computer components, i.e., a particular machine, or that the claimed invention is implemented using other than generic computer components to perform generic computer functions. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[A]fter *Alice*, there can remain no

doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”).

We also find no indication in the Specification that the claimed invention effects a transformation or reduction of a particular article to a different state or thing. Nor do we find anything of record that attributes an improvement in computer technology and/or functionality to the claimed invention or that otherwise indicates that the claimed invention integrates the abstract idea into a “practical application,” as that phrase is used in the 2019 Revised Guidance.<sup>6</sup>

Appellant argues that independent claim 1 “is clearly directed to at least improvements to another technology or technological field, as well as improvements to the functioning of the computer itself.” Appeal Br. 10; Reply Br. 4–5. Appellant attributes this purported technical improvement to each of the elements recited by independent claim 1, which together improve “results performance and reliability by ranking the sources of the results.” Appeal Br. 11.

Appellant’s argument is not persuasive. Here, the focus of independent claim 1 is not on any technological advancement, but rather on the implementation of the abstract idea, “for which computers are invoked

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<sup>6</sup> The 2019 Revised Guidance references MPEP § 2106.05(a)–(c) and (e) in describing the considerations that are indicative that an additional element or combination of elements integrates the judicial exception, e.g., the abstract idea, into a practical application. 2019 Revised Guidance, 84 Fed. Reg. at 55. If the recited judicial exception is integrated into a practical application, as determined under one or more of these MPEP sections, the claim is not “directed to” the judicial exception.

merely as a tool.” *See Enfish*, 822 F.3d at 1336. In this regard, the Specification discloses that

the systems and processes described in this disclosure may be implemented on any general or special purpose computational device, either as a standalone application or applications, or even across several general or special purpose computational devices connected over a network.

Spec. ¶ 112.

Independent claim 1, unlike the claims found non-abstract in prior cases, uses generic computer technology to receive, categorize, check, reformat, transmit, merge, and format advertising information, and does not recite an improvement to a particular computer technology. *See McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (finding claims not abstract because they “focused on a specific asserted improvement in computer animation”).

Having determined under step one of the *Mayo/Alice* framework that claim 1 is directed to an abstract idea, we next consider under Step 2B of the 2019 Revised Guidance, the second step of the *Mayo/Alice* framework, whether claim 1 includes additional elements or a combination of elements that provides an “inventive concept,” i.e., whether the additional elements amount to “significantly more” than the judicial exception itself. 2019 Revised Guidance, 84 Fed. Reg. at 56.

Appellant argues that the Examiner has failed to “show that the pending claims are ‘well understood, routine or conventional’ as required by *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018) and *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121 (Fed. Cir. 2018). Reply Br. 5. However, “the relevant inquiry is not whether the claimed invention as a whole is unconventional or non-routine.” *BSG Tech LLC v.*

*BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). Instead, the question is whether the claim includes additional elements, i.e., elements other than the abstract idea itself, that “transform the nature of the claim’ into a patent-eligible application.” *Alice Corp.*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79, 78).

Here, the Examiner determined that “[c]laim 1 recites additional elements such as: ‘an electronic user device’ configured to receive a query; ‘a results processor’ configured to merge results and to format results; ‘a results cache’ configured to store data; and ‘a query broker component’ configured to categorize and reformat data.” Ans. 5. The Examiner further determined that

these elements, when taken both individually and/or as an ordered combination, execute in a manner routinely and conventionally expected of these elements, and the above noted steps represent conventional functions that can be performed by a generic computer without any novel programming or improvement in the operation of the computer itself.

*Id.* at 6. The Examiner further determines that the “[u]se of a cache, and storing in cache, previously obtained results to common queries, is a well understood, routine[,] and conventional technology.” *Id.* Consequently, the Examiner concludes that

[t]he claims do not include limitations that are “significantly more” than the abstract idea because the claims do not include an improvement to another technology or technical field, an improvement to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment.

*Id.*

We agree with the Examiner that the steps performed by these components are well-understood, routine, or conventional. As discussed

above, there is nothing in the Specification to indicate that the steps recited in claim 1 require any specialized hardware or inventive computer components or that the claimed invention is implemented using anything other than generic computer components to perform generic computer functions, e.g., receiving, categorizing, checking, reformatting, transmitting, merging, and formatting.

Viewed as a whole, independent claim 1 simply recites a series of steps instructing how to determine and present relevant advertisements. *See Ultramercial*, 772 F.3d at 716 (“[T]he claimed sequence of steps comprises only ‘conventional steps, specified at a high level of generality,’ which is insufficient to supply an ‘inventive concept.’”) (citing *Alice*, 134 S. Ct. at 2357). Here, independent claim 1 does not, for example, purport to improve the functioning of the computer itself. Nor does it effect an improvement in any other technology or technical field, as discussed above with respect to prong two of step 2A. Instead, independent claim 1 amounts to nothing significantly more than an instruction to apply the abstract idea using generic computing elements, which under our precedents, is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2360.

We also are not persuaded by Appellant’s argument that “[t]he Examiner has not provided any factual evidence in support of his position” that “[u]se of a cache, and storing in cache, previously obtained results to common queries, is a well understood, routine and conventional technology’and is ‘an ubiquitous practice for optimizing storage resources known to be limited and expensive.’” Reply Br. 5–6. At the outset, we note that the Federal Circuit, in accordance with *Alice*, has “repeatedly

recognized the absence of a genuine dispute as to eligibility” where claims have been defended as involving an inventive concept based “merely on the idea of using existing computers or the Internet to carry out conventional processes, with no alteration of computer functionality.” *Berkheimer v. HP, Inc.*, 890 F.3d 1369, 1373 (Fed. Cir. 2018) (Moore, J., concurring); *see also BSG Tech*, 899 F.3d at 1291 (“BSG Tech does not argue that other, non-abstract features of the claimed inventions, alone or in combination, are not well-understood, routine and conventional database structures and activities. Accordingly, the district court did not err in determining that the asserted claims lack an inventive concept.”). Moreover, there is no indication in the record that the “results cache” requires any specialized computer hardware or that it requires any programming atypical from conventional programming. Instead, the Specification discloses utilizing conventional computer components. *See, e.g.*, Spec. ¶ 90 (“At step 230, results caches may be checked for pre-existing results sets.”); ¶ 18 (“[S]toring results from each advertisement source in one or more caches, accessing the one or more caches to retrieve existing results, and formatting the retrieved existing results based on one or more query context parameters.”); *see also Bancorp Services v. Sun Life*, 687 F.3d 1266, 1278, (Fed. Cir. 2012) (“The computer required by some of Bancorp’s claims is employed only for its most basic function, the performance of repetitive calculations, and as such does not impose meaningful limits on the scope of those claims.”).

Appellant’s other arguments, including those directed to now-superseded USPTO guidance, have been considered but are not persuasive of error. *See* 2019 Revised Guidance, 84 Fed. Reg. at 51 (“Eligibility-

related guidance issued prior to the Ninth Edition, R-08.2017, of the MPEP (published Jan. 2018) should not be relied upon.”)).

We are not persuaded, on the present record, that the Examiner erred in rejecting independent claim 1 under 35 U.S.C. § 101. Therefore, we sustain the Examiner’s rejection of independent claim 1, and claims 2–13, 15, and 17–25, which fall with independent claim 1.

### *Obviousness*

We are persuaded by Appellant’s argument that the Examiner erred in rejecting independent claims 1, 12, and 13 under 35 U.S.C. § 103(a) because Grannan, upon which the Examiner relies, fails to disclose or suggest “wherein the business relationship factor indicates a business relationship between the one or more advertisement sources and a distributor,” as recited by limitation [f] of independent claim 1, and similarly recited by independent claims 12 and 13. Appeal Br. 15–16; Reply Br. 7–8.

The Examiner maintains that the rejection is proper, and cites Grannan, as disclosing “a business relationship factor.” Ans. 12–13 (citing Grannan ¶¶ 56–57); Non-Final Act. 15 (citing Grannan ¶ 81). However, we agree with Appellant that there is nothing in the cited portions that discloses or suggests the argued limitation.

In making this determination, we note that Grannan is directed to “providing selected advertising to send to a recipient.” Grannan ¶ 2. In one embodiment, Grannan discloses providing targeted advertisements using an advertising knowledge management system (AKMS), which provides targeted advertising based on a user’s opt-in preferences and user behavioral information. *Id.* ¶¶ 55–56. For example, targeted advertisements may be

sent to a shopping user based on previous Internet surfing behavior and locational presence. *Id.* ¶¶ 56–57. Grannan further discloses that the AKMS may select advertising using an “advertiser index database” that stores information on registered advertisers and their advertisements and defines the conditions for which specific advertisements should be delivered to specific users. *Id.* ¶ 81.

We have reviewed the cited portions of Grannan and agree with Appellant that none of the cited portions of Grannan, alone or in combination, discloses or suggests the argued limitation. Instead, we agree with Appellant that, even if Grannan discloses a business relationship between advertisement source merchants and a distributor AKMS, Grannan does not “disclose, or even suggest, a business relationship factor that indicates a business relationship between the one or more advertisement sources and a distributor,” as required by limitation [f] of independent claim 1, and similarly required by independent claims 12 and 13. Reply Br. 7–8. Although we agree with the Examiner that Grannan discloses a business relationship between the participating and registered merchants and the AKMS (Ans. 12), we cannot agree with the Examiner that Grannan discloses a “business relationship factor” used in electronically merging results.

To the extent the Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to “further include a conditional factor that the advertiser be registered (a business relationship factor)” (Non-Final Act. 15), the Examiner does not sufficiently explain why such a modification would have been obvious to one of ordinary skill in the art. Here, the Examiner provides no apparent reason explaining why a

person having ordinary skill in the art would have been led to make such a modification and does not offer any evidence or reasoning to explain why using a business relationship as a conditional factor would be desired by one of ordinary skill in the art.

Furthermore, to the extent that the Examiner asserts that the argued limitation carries little or no patentable weight because claim 1 only actively and positively recites a step of “electronically merging” (Ans. 12–13), we agree with Appellant that “the business relationship factor defines in part the ‘plurality of factors’ based on which the step of electronically merging is performed, and thus carries patentable weight.” Reply Br. 7–8.

For the above reasons, the Examiner’s rejection lacks the requisite findings and reasoning to establish by a preponderance of the evidence that the proposed combination of Guha, Grannan, and Basu renders obvious the subject matter of independent claims 1, 12, and 13.

Accordingly, we do not sustain the Examiner’s rejection of independent claims 1, 12, and 13 under 35 U.S.C. § 103(a). For the same reasons, we also do not sustain the Examiner’s rejection of dependent claims 2–11, 15, 17–23, and 25, which are not argued separately. On the same basis, we do not sustain the obviousness rejection of dependent claim 24, as the additional reference, Jung, is not cited to remedy the aforementioned deficiency.

CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-13, 15, 17-25	101	Eligibility	1-13, 15, 17-25	
1-13, 15, 17-23, 25	103	Guha, Grannan, Basu		1-13, 15, 17-23, 25
24	103	Guha, Grannan, Basu, Jung		24
<b>Overall Outcome</b>			1-13, 15, 17-25	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED