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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CURTIS VILLARS

Appeal 2018-003014
Application 13/438,346¹
Technology Center 3600

Before JOSEPH L. DIXON, HUNG H. BUI, and JON M. JURGOVAN,
Administrative Patent Judges.

BUI, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellant seeks our review under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–3, 5–13, and 15–20, which are all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.²

¹ According to Appellant, the real party in interest is MasterCard International Incorporated. App. Br. 1.

² Our Decision refers to Appellant's Appeal Brief ("App. Br.") filed August 8, 2017; Reply Brief ("Reply Br.") filed January 30, 2018; Examiner's Answer ("Ans.") mailed November 30, 2017; Final Office Action ("Final Act.") mailed March 9, 2017; and original Specification ("Spec.") filed April 3, 2012.

STATEMENT OF THE CASE

Appellant's invention relates to a method and system for "measuring advertisement effectiveness by using microsegments as applied to exposed and unexposed consumers," the microsegments being "generat[ed] . . . without the use of personally identifiable information." Spec. ¶¶ 2, 11.

Claims 1 and 11 are independent. Representative claim 1 is reproduced below:

1. A method of analyzing advertising effectiveness, comprising:

electronically storing, in an encrypted database of a processing server that does not store personally identifiable information (PII), entity information from a demographic tracking agency associated with a plurality of entities, wherein the entity information is non-personally identifiable and includes activity information and characteristic information associated with the corresponding entity;

without using PII, generating, by a processor of the processing server, a plurality of microsegments, each microsegment including a subset of the plurality of entities based on the associated characteristic information stored in the encrypted database, wherein no two subsets of the plurality of entities contains a common entity at the same time;

determining, by the processor of the processing server, without the use of PII, a test audience including a plurality of first microsegments that has been exposed to an advertisement associated with a merchant and a control audience including a plurality of second microsegments that has not deliberately been exposed to the advertisement, wherein (i) entities included in the plurality of first microsegments of the test audience and entities included in the plurality of second microsegments of the control audience cannot be uniquely identified by the processor, (ii) entities included in the test audience are exposed to the advertisement during a predetermined period of time and (iii) entities included in the control audience are not deliberately

exposed to the advertisement during the predetermined period of time, wherein the advertisement included in the test audience and the advertisement included in the control audience is the same advertisement;

analyzing, by the processor of the processing server, the activity information for the entities in the plurality of first microsegments included in the test audience and the entities in the plurality of second microsegments included in the control audience to determine spending behaviors for the associated entities during the predetermined period of time, wherein the spending behavior comprises financial transaction data;

comparing, by the processor of the processing server, the spending behaviors determined for the entities in the plurality of first microsegments of the test audience with the spending behaviors determined for the entities in the plurality of second microsegments of the control audience to determine the effectiveness of the exposure to the advertisement; and

reporting, by a communication component of the processing server, the effectiveness of the exposure to the advertisement to the merchant.

App. Br. 15–21 (Claims App.).

Evidence Considered

Klein et al. (“Klein”)	US 2010/0114668 A1	May 6, 2010
Sattley et al. (“Sattley”)	US 2007/0260519 A1	Nov. 8, 2007

Examiner’s Rejection

Claims 1–3, 5–13, and 15–20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Klein and Sattley. Final Act. 6–22.

ANALYSIS

With respect to independent claim 1, and similarly independent claim 11, the Examiner finds Klein's method and system for determining effectiveness of advertisements with respect to a group of panelists, teach a method and system for analyzing advertising effectiveness by (i) electronically storing, in an encrypted database of a processing server that does not store personally identifiable information (PII), entity information associated with a plurality of entities, the entity information being non-personally identifiable, and (ii) without using PII, generating microsegments each including a subset of the entities, wherein no two subsets contain a common entity at the same time, as claimed. Final Act. 6–9 (citing Klein ¶¶ 16, 18, 26–31, 47, 51). In particular, the Examiner finds Klein stores characteristic information of panelists/entities to define groups, “where the characteristic information is drawn to demographic, psychographic, geographic characteristics” that are non-personally identifiable, as required by claim 1. Ans. 3–4.

The Examiner further finds Klein discloses “panelist grouping is based on shared characteristics of panelists, and does not utilize personal information (i.e. name, address, etc.) to form such groupings,” thereby teaching that “stored information that is not personally identifiable . . . is used to generate microsegments,” as claimed. Ans. 4. The Examiner also finds Klein teaches the claimed microsegments whose subsets do not contain a common entity at the same time, because Klein teaches microsegments may be demographic groups relating to gender or age “in which the individual may only be associated with one grouping (i.e. either male OR

female and/or falling within only one age bracket: age 0–13 OR age 14–25, for example).” Ans. 6.

The Examiner further finds Klein teaches (iii) analyzing activity information for entities in the microsegments to determine spending behaviors, (iv) comparing the spending behaviors in microsegments to determine effectiveness of the exposure to an ad, and (v) reporting the effectiveness of the ad exposure to a merchant, as required by claims 1 and 11. Final Act. 9–11 (citing Klein ¶¶ 12, 17–18, 36–40, 45, 53, Abstract).

To support the conclusion of obviousness, the Examiner relies on Sattley for teaching the claimed “determining . . . a test audience [whose entities are exposed to the ad during a predetermined time period] . . . and a control audience [whose entities are not deliberately exposed to the ad during the predetermined period],” and analyzing activity information for entities in the test and control audiences to compare entities’ behaviors, as recited in claims 1 and 11. Final Act. 11–13 (citing Sattley ¶¶ 6–7, 19, 40–41, 47, 49, 56–57, 59, 69, 73, 83–88).

Appellant disputes the Examiner’s factual findings regarding Klein. In particular, Appellant argues “*Klein* is devoid of disclosure that teaches or suggests that (1) an encrypted database of a processing server does not store PII and (2) entity information (stored in the encrypted database) is non-personally identifiable.” Reply Br. 1; *see also* App. Br. 8–10. Appellant asserts Klein “does **not** specify that the stored characteristics and stored consumer data, are **non-personally identifiable**” and does not “**restrict**[] a processing server such that it does **not** store any PII, as in Appellant’s [claim 1].” App. Br. 8. Appellant also argues Klein does not teach or suggest “without using PII, generating a plurality of microsegments, wherein each

microsegment includes a subset of the plurality of entities and **wherein no two subsets of the plurality of entities contains a common entity at the same**” as recited in claim 1. App. Br. 12–13; *see also* Reply Br. 3–4.

We do not find Appellant’s arguments persuasive. Rather, we find the Examiner has provided a comprehensive response to Appellant’s arguments supported by a preponderance of evidence. Ans. 3–6. Therefore, we adopt the Examiner’s findings and explanations provided therein. *Id.* At the outset, we note claim terms are given their broadest reasonable interpretation consistent with the Specification. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under the broadest reasonable interpretation, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Appellant’s claim 1 recites, *inter alia*, “electronically storing, in an encrypted database of a processing server that does not store personally identifiable information (PII), entity information from a demographic tracking agency associated with a plurality of entities,” wherein “the entity information is non-personally identifiable.” Appellant’s Specification provides that “[p]ersonally identifiable information (PII) *may be information that may be used, alone or in conjunction with other sources, to uniquely identify* a single individual (e.g., the customer 102).” *See* Spec. ¶ 23 (emphasis added). The Specification further provides “[i]nformation that may be considered personally identifiable may be defined by a third party, such as a governmental agency . . . , a non-governmental organization (e.g., the Electronic Frontier Foundation), industry custom, consumers (e.g.,

through consumer surveys, contracts, etc.), codified laws, regulations, or statutes, etc.” See Spec. ¶ 26. The description of PII in Appellant’s Specification does not provide an explicit and exclusive definition of PII; rather, Appellant’s Specification provides a broad description of what *may qualify* as PII, indicating that what qualifies as PII may depend on “other sources.” See Spec. ¶ 23. For example, the Specification explains that age and income may or may not qualify as PII. See Spec. ¶¶ 25, 46–47, 49, 52. When an age and income combination does not uniquely identify an individual, that age and income are not PII; however, when an age and income combination is “unique in a particular circumstance to . . . [a] consumer,” that age and income qualify as PII. See Spec. ¶ 25.

Based on Appellant’s Specification, the Examiner has broadly interpreted claim 1’s information that is not “personally identifiable information (PII)” and “information [that] is non-personally identifiable” as encompassing Klein’s consumer characteristics. Final Act. 6–7 (citing Klein ¶¶ 16, 18, 47, 51); Ans. 3–4. We find the Examiner’s interpretation reasonable and consistent with Appellant’s Specification. Particularly, Klein’s consumer characteristics are “*any characteristic or combination of characteristics, including for example demographic, psychographic, and/or geographic characteristics,*” such as “age, gender,” “income levels, geographic location, interest in particular topics, and/or the like.” See Klein ¶¶ 16 (emphasis added), 18, 51. That is, Klein’s *consumer characteristics* may be any one of the mentioned characteristics, such as *gender*—that is not PII because *gender* does not uniquely identify an individual in Klein’s groups. See Klein ¶¶ 24 (describing groups of randomly selected

individuals), 45 (describing groups of males and females), 51 (describing groups including “older females, younger males”).

The Examiner further finds that Klein’s storing “demographic, psychographic, and/or geographic characteristics” using an event collection server (105) teaches the claimed storing information in a database of a “server that does not store . . . PII,” because Klein’s stored characteristics are *not personally identifiable information* such as *name, address, and social security numbers (SSNs)*. Final Act. 3–4, 7, 10 (citing Klein ¶¶ 16, 36–39, 45); Ans. 3–4. Appellant argues the Examiner is in error because “*Klein* provides no disclosure that suggests **restriction** on the storage of data such that **no PII** is stored therein (i.e., such that only non-PII is stored).” App. Br. 8.

Appellant’s argument is not persuasive because Appellant has not shown error in the Examiner’s finding that Klein’s stored characteristics do not include PII. When, as here, a reference is silent regarding the presence of a feature (PII storage) excluded from the claim via a negative limitation, it is reasonable to interpret the reference’s silence as to the excluded feature as teaching that the reference does not include that feature absent persuasive technical reasoning or evidentiary showing otherwise. Therefore, given Klein’s silence as to the presence of PII (in the stored “demographic, psychographic, and/or geographic [panelist] characteristics,” *see* Klein ¶ 16) which Appellant’s claim 1 substantially excludes via negative limitation, it is reasonable to shift the burden to Appellant to establish that Klein’s stored characteristics, though silent with regard to the presence of PII, nonetheless include PII. “[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the

burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990) (citation omitted).

We, thus, turn to Appellant’s citation of paragraph 48 in Klein which Appellant relies on to establish that “in *Klein*, PII must be stored.” Reply Br. 2–3 (citing Klein ¶ 48). Particularly, Appellant argues an “individual is identified (PII) for transmission of the selected advertisement [in Klein]” and “PII must be used for this end result in order for transmission to occur.” Reply Br. 3. We remain unpersuaded by Appellant’s arguments because the addressable consumer information in Klein’s paragraph 48 is not the same as the Examiner’s cited non-PII information (i.e., the “demographic, psychographic, and/or geographic [panelist] characteristics,” *see* Klein ¶ 16). Klein discloses that *non-PII characteristics of panelists 103* (such as panelists’ gender) are collected by event collection server 105 and “a storage device” for panelist data 106 (*see* Klein, ¶¶ 38, 40, 55, and Fig. 1), while addressable consumer information for end consumers 111 is in “data store 109” (*see* Klein, ¶ 47 and Fig. 1). Appellant has not established that Klein’s server and database 105, 106 *storing panelists’ non-PII characteristics also store* “PII[] for transmission of the selected advertisement [to end consumers].” *See* Reply Br. 3.

Accordingly, we agree with the Examiner that Klein teaches and suggests electronically storing, in a database of a processing server that does not store PII, entity information that is non-personally identifiable, as recited in claim 1.

We are also unpersuaded by Appellant’s argument that “[t]here is nothing in *Klein* to suggest that the database is *encrypted*” as recited in claim 1. App. Br. 10 (emphasis added). As recognized by the Examiner, “the

claim language is very broad in merely describing the database to be an encrypted database, with no additional detail regarding how the encryption affects the overall invention.” Ans. 4. That is, claim 1 broadly requires storing the information “in an encrypted database,” and we agree with the Examiner that Klein teaches or at least suggests that the database storing entity information could be *encrypted*. Ans. 3–4; Final Act. 7–8. For example, Klein teaches that “[a]n electronic device for implementing the present invention may use an operating system such as, for example, *Microsoft Windows Vista*”—which is known, to the ordinary skilled artisan, to be using *encrypted* databases. See Klein ¶ 72 (emphasis added).³

Appellant further argues Klein does not teach or suggest “without using PII, generating a plurality of microsegments, wherein each microsegment includes a subset of the plurality of entities and **wherein no two subsets of the plurality of entities contains a common entity at the same**” as recited in claim 1. App. Br. 12–13; *see also* Reply Br. 3–4. However, Appellant’s argument has not rebutted the Examiner’s specific findings that Klein generates groups of panelists (microsegments) “based on any characteristic” such as “demographics[,] age, gender, geography, and the like.” Final Act. 8 (citing Klein ¶¶ 16, 18, 30–31, 47, 51); Ans. 6. Klein’s panelist groups based on gender (for example) are generated “without using PII,” as claimed. As the Examiner further finds, Klein’s panelist groups based on gender are disjoint because “if an individual is part of a

³ For example, some versions of Windows Vista use “full disk encryption” and support an “Encrypted File System.” See <https://www.cnet.com/news/windows-vista-and-the-secret-of-full-disk-encryption/> (last accessed April 22, 2019).

demographic group relating to gender or age . . . the individual may only be associated with one grouping (i.e. either male OR female and/or falling within only one age bracket: age 0–13 OR age 14–25, for example).” Ans. 6. We agree with the Examiner’s findings. Klein’s microsegments of older females and younger males teach the claimed “no two [microsegments’] subsets of the plurality of entities contains a common entity at the same time.” *See* Klein ¶¶ 45 (describing “group 101A may include panelists 103 having certain characteristics (e.g., older females), while group 101B may include panelists 103 having different characteristics (e.g. younger males)”), 51 (describing groups of “older females, younger males, homeowners, students, people living in rural areas, or the like”).

We therefore agree with the Examiner that Klein teaches and suggests “without using PII, generating . . . a plurality of microsegments, each microsegment including a subset of the plurality of entities . . . wherein no two subsets of the plurality of entities contains a common entity at the same time” as recited in claim 1. Final Act. 7–9; Ans. 5–6.

For these reasons, Appellant has not persuaded us of error in the Examiner’s rejection of claim 1. As such, we sustain the Examiner’s obviousness rejection of claim 1, and dependent claims 2, 3, and 5–10, argued for their dependency. App. Br. 14.

With respect to independent claim 11, Appellant reiterates the same arguments presented against claim 1. App. Br. 13–14. For the same reasons discussed, we also sustain the Examiner’s obviousness rejection of claim 11, and dependent claims 12, 13, and 15–20, argued for their dependency. App. Br. 14.

OTHER ISSUE

In the event of further prosecution of this application, the Examiner should evaluate claims 1 and 11 for compliance under 35 U.S.C. § 101 in light of *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014), and the USPTO’s new Section 101 Memorandum that governs all patent-eligibility analysis under *Alice* and section 101 effective as of January 7, 2019. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50, 52, Jan. 7, 2019 (“PTO § 101 Memorandum”).

In *Alice*, the Supreme Court reiterated the framework set out in *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012), for “distinguishing patents that claim . . . abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 573 U.S. at 218. Assuming that a claim nominally falls within one of the statutory categories of machine, manufacture, process, or composition of matter, the first step in the analysis according to *Alice* is to determine if the claim is directed to a law of nature, a natural phenomenon, or an abstract idea (judicial exceptions). If so, the second step in the *Alice* analysis is to determine whether any element or combination of elements in the claim is sufficient to transform the nature of the claim into a patent eligible application, that is, to ensure that the claim amounts to significantly more than the judicial exception.

In the PTO § 101 Memorandum, the PTO has synthesized, for purposes of clarity, predictability, and consistency, key concepts identified by the courts as abstract ideas to explain that the “abstract idea” exception includes the following three groupings:

- (1) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;
- (2) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion); and
- (3) Certain methods of organizing human activity—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).

PTO § 101 Memorandum, 84 Fed. Reg. 52. According to the PTO § 101 Memorandum, “[c]laims that do not recite [subject] matter that falls within these enumerated groupings of abstract ideas should not be treated as reciting abstract ideas,” except in rare circumstances. Even if the claims recite any one of these three groupings of abstract ideas, these claims are still not “directed to” a judicial exception (abstract idea), and thus are patent-eligible, if “the claim as a whole integrates the recited judicial exception into a practical application of that [judicial] exception.” *See* PTO § 101 Memorandum, 84 Fed. Reg. 53. “[I]ntegration into a practical application” requires an additional element or a combination of additional elements in the claim to apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the exception. *See* PTO § 101 Memorandum, 84 Fed. Reg. 53–55.

For example, limitations that are indicative of “integration into a practical application” include:

- 1) Improvements to the functioning of a computer, or to any other technology or technical field — *see* MPEP § 2106.05(a);
- 2) Applying the judicial exception with, or by use of, a particular machine — *see* MPEP § 2106.05(b);
- 3) Effecting a transformation or reduction of a particular article to a different state or thing — *see* MPEP § 2106.05(c); and
- 4) Applying or using the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception — *see* MPEP § 2106.05(e).

See PTO § 101 Memorandum, 84 Fed. Reg. 53–55.

In contrast, limitations that are not indicative of “integration into a practical application” include:

- 1) Adding the words “apply it” (or an equivalent) with the judicial exception, or mere instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea — *see* MPEP § 2106.05(f);
- 2) Adding insignificant extra-solution activity to the judicial exception — *see* MPEP § 2106.05(g); and
- 3) Generally linking the use of the judicial exception to a particular technological environment or field of use — *see* MPEP § 2106.05(h).

See PTO § 101 Memorandum, 84 Fed. Reg. 54–55 (“Prong Two”).

Under *Step 2A, Prong 1 of the PTO § 101 Memorandum*, we determine claim 1, and similarly, claim 11, recite a commercial interaction and fundamental economic practice of performing advertising research, which is one of certain methods of organizing human activity identified in

the PTO § 101 Memorandum, and thus an abstract idea. *See* PTO § 101 Memorandum, 84 Fed. Reg. at 52 (describing an abstract idea category of “[c]ertain methods of organizing human activity—fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including . . . advertising, marketing or sales activities or behaviors; business relations)”).

Particularly, claim 1 (and similarly, claim 11) recites a method of analyzing advertising effectiveness, which includes limitations directed to: i) storing activity information and characteristic information about entities, ii) generating, without using PII, microsegments including disjoint subsets of entities, iii) determining test and control audiences including microsegments, the test audience being exposed to an advertisement of a merchant, and the control audience not deliberately exposed to the advertisement, iv) analyze and compare spending behaviors of entities in the test and control audiences, to determine the effectiveness of the exposure to the advertisement, and v) report the effectiveness of the exposure to the advertisement to the merchant. These limitations, under their broadest reasonable interpretation, recite conducting advertising research to determine impact of ads on consumers’ spending behavior.

As Appellant’s Specification states, Appellant’s invention relates to “methods for measuring the effectiveness of advertisements, specifically measuring advertisement effectiveness by using microsegments as applied to exposed and unexposed consumers.” Spec. ¶ 2. Appellant’s invention “improv[es] measurement of advertising effectiveness by analyzing actual financial transaction information for exposed and unexposed consumers,

while still maintaining the privacy and security of consumer information.”
Spec. ¶ 5.

The Examiner should evaluate whether Appellant’s method for performing advertising research is a known business activity and a fundamental economic practice in our system of commerce, similar to other concepts identified by the courts as abstract ideas. For example, like the risk hedging in *Bilski*, the intermediated settlement in *Alice*, and the delivery of free content in exchange for viewing ads in *Ultramercial*, the concept of ad research for increasing product sales is a fundamental business practice long prevalent in our system of commerce. *See Bilski v. Kappos*, 561 U.S. 593, 612 (2010); *Alice*, 573 U.S. at 215–19; *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715–16 (Fed. Cir. 2014). Performing advertising research to determine consumers’ interests and improve product sales is also a building block of a market economy and, like risk hedging and intermediated settlement, is an “abstract idea” beyond the scope of § 101. *See Alice*, 573 U.S. at 219.

In addition, the Examiner should evaluate whether the steps recited in Appellant’s claim 1 are merely receiving, processing, comparing, and outputting data of a specific content, e.g., activity information of entities and resulting spending behaviors including entities’ financial transaction data. Information, as such, is intangible, and data analysis and comparisons, without more, are abstract ideas. *See, e.g., Microsoft Corp. v. AT & T Corp.*, 550 U.S. 437, 451 n.12 (2007); *Alice*, 573 U.S. at 217–18; *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972). “[C]ollecting information, including when limited to particular content (which does not change its character as information),” is “within the realm of abstract ideas.” *Elec. Power Grp.*

LLC v. Alstom S.A., 830 F.3d 1350, 1353–54 (Fed. Cir. 2016); *see also Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1349 (Fed. Cir. 2015); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011).

Under *Step 2A, Prong 2 of the PTO § 101 Memorandum*, the Examiner should evaluate whether claim 1 (and similarly, claim 11) does not include additional element(s) that integrate the judicial exception (abstract idea) into a practical application. *See* PTO § 101 Memorandum, 84 Fed. Reg. at 54–55 (“Prong Two”). For example, Appellant’s claimed additional elements (e.g., processing server, encrypted database, processor, and communication component) do not: (1) improve the functioning of a computer or other technology; (2) are not applied with any particular machine (except for a generic computer); (3) do not effect a transformation of a particular article to a different state; and (4) are not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception. *See* MPEP § 2106.05(a)–(c), (e)–(h).

For business-centric inventions such as Appellant’s invention involving advertising research, the “integration into a practical application” prong of the PTO § 101 Memorandum further requires consideration of whether the claims purport to provide “a technical solution to a technical problem” as required by the Federal Circuit’s precedential decisions in (1) *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) and (2) *Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288

(Fed. Cir. 2016). *See* MPEP § 2106.05(a). Appellant’s analysis of advertising effectiveness, however, does not appear to provide any “technical solution to a technical problem” as contemplated by the Federal Circuit in *DDR* and *Amdocs*. *See* MPEP § 2106.05(a).

Thus, the Examiner should evaluate whether claims 1 and 11 are directed to the abstract idea of performing advertising research.

Further, under *Step 2B identified in the PTO § 101 Memorandum*, the Examiner should evaluate whether claims 1 and 11 do not recite an inventive concept which transforms the abstract idea into a patent eligible invention. Under current Federal Circuit precedent, an “inventive concept” under *Alice* step 2 can be established by showing, for example, that the patent claims:

- (1) provide a technical solution to a technical problem unique to the Internet, e.g., a “solution . . . necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks” (*see DDR Holdings*, 773 F.3d at 1257);
- (2) transform the abstract idea into “a particular, practical application of that abstract idea,” e.g., “installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user” (*see BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1352, 1350 (Fed. Cir. 2016)); or
- (3) “entail[] an unconventional technological solution ([e.g.,] enhancing data in a distributed fashion) to a technological problem ([e.g.,] massive record flows [that] previously required massive databases)” and “improve the performance of the system itself” (*see Amdocs*, 841 F.3d at 1300, 1302).

Similarly, as recognized by the PTO § 101 Memorandum, an “inventive concept” under *Alice* step 2 can also be evaluated based on whether an additional element or combination of elements:

- (1) “adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present;” or
- (2) “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.”

See PTO § 101 Memorandum, 84 Fed. Reg. at 56.

The Examiner should evaluate whether Appellant’s abstract idea of performing advertising research is not rooted in computer technology, as the claims in *DDR Holdings*. Nor does it appear to (1) provide any technical solution to a technical problem unique to the Internet as required by *DDR Holdings*; (2) provide any particular practical application as required by *BASCOM*; or (3) entail an unconventional technological solution to a technological problem as required by *Amdocs*. Instead, Appellant’s claims 1 and 11 recite computer-implemented processing, shown, for example, in Figures 1–9, to perform the abstract idea, and the claimed generic computer functions (e.g., input of data/entity information, processing data pertaining to the entities, and output data including compared spending behaviors). The Examiner should evaluate whether this is insufficient to transform the nature of the claims into a patent-eligible application. The use of generic computer elements such as a processing server, encrypted database, processor, and communication component do not transform an otherwise abstract idea into patent-eligible subject matter. As our reviewing court has observed, “after

Alice, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.” *DDR*, 773 F.3d at 1256 (citing *Alice*, 573 U.S. at 222–23).

We therefore recommend the Examiner evaluate each element of claims 1 and 11, and of dependent claims 2, 3, 5–10, 12, 13, and 15–20, to determine whether claims 1–3, 5–13, and 15–20 satisfy both steps outlined in the *PTO § 101 Memorandum*.

CONCLUSION

On the record before us, we conclude Appellant has not demonstrated the Examiner erred in rejecting claims 1–3, 5–13, and 15–20 under 35 U.S.C. § 103(a).

DECISION

As such, we AFFIRM the Examiner’s Final Rejection of claims 1–3, 5–13, and 15–20 under 35 U.S.C. § 103(a).

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).

AFFIRMED