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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* JUSTIN X. HOWE

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Appeal 2017-000306<sup>1</sup>  
Application 13/938,703  
Technology Center 3600

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Before ST. JOHN COURTENAY III, LARRY J. HUME, and  
JOYCE CRAIG, *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, 2, 5–9, 11–14, 17–21, and 23–26, which are all the claims pending in the application. Appellant has canceled claims 3, 4, 10, 15, 16, and 22. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> According to Appellant, the real party in interest is MasterCard International Inc. App. Br. 2.

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

*The Invention*

Appellant's disclosed embodiments and claimed invention "relate[] to the providing of characteristic payments data, specifically the providing of a data file of a geographic information system (GIS) file format including characteristic data for a plurality of payment transactions." Spec. ¶ 1.

*Exemplary Claim*

Claim 1, reproduced below, is representative of the subject matter on appeal (*emphasis* added to contested limitation in § 103 prior art rejection):

1. A computer-implemented method for providing characteristic payments data, comprising:

electronically receiving, by a receiving device of a processing server, data from a financial payment network;

storing, in a transaction database of the processing server, a plurality of transaction data entries based on the data received from the financial payment network, each of the plurality of transaction data entries including data related to a financial transaction including at least transaction data, consumer information, merchant information, and a geographic location, *wherein the consumer information included in each of the stored plurality of transaction data is not personally identifiable;*

electronically receiving, by the receiving device of the processing server, a request for payment transaction characteristics from an external requesting entity, wherein the request for payment transaction characteristics includes at least

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<sup>2</sup> Our decision relies upon Appellant's Appeal Brief ("App. Br.," filed Jan. 13, 2016); Reply Brief ("Reply Br.," filed Sept. 15, 2016); Examiner's Answer ("Ans.," mailed July 15, 2016); Final Office Action ("Final Act.," mailed Nov. 13, 2015); and the original Specification ("Spec.," filed July 10, 2013).

one desired payment transaction characteristic metric and a desired geographic area;

in response to the request for payment transaction characteristics received from the external requesting entity, identifying, by a processing device of the processing server, a subset of the plurality of transaction data entries stored in the transaction database, wherein the geographic location included in each transaction data entry in the identified subset matches the desired geographic area included in the request for payment transaction characteristics received from the external requesting entity;

calculating, by the processing device of the processing server, the at least one desired payment transaction characteristic metric based on an analysis of at least one of: the transaction data, consumer information, and merchant information of each transaction data entry of the identified subset of the plurality of stored transaction data entries;

electronically generating, by the processing device of the processing server, a data file in a geographic information system (GIS) file format that illustrates the calculated at least one payment transaction characteristic metric as applied to the desired geographic area included in the request for payment transaction characteristics received from the external requesting entity; and

electronically transmitting, by a transmitting device of the processing server, an output file including the generated data file to the external requesting entity, wherein the transmission of the output file causes a display of the external requesting entity to display the generated data file.

*Prior Art*

The Examiner relies upon the following prior art as evidence in rejecting the claims on appeal:

Necsoiu et al. ("Necsoiu")	US 2004/0158584 A1	Aug. 12, 2004
Tavares et al. ("Tavares")	US 2012/0084117 A1	Apr. 5, 2012
Villars et al. ("Villars")	US 2014/0025483 A1	Jan. 23, 2014
Zennaro et al. ("Zennaro")	US 8,868,522 B1	Oct. 21, 2014

*Rejections on Appeal*

R1. Claims 1, 2, 5–9, 11–14, 17–21, and 23–26 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 3.

R2. Claims 1, 2, 5–9, 11–14, 17–21, 23, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Tavares, Necsoiu, and Zennaro. Final Act. 8.

R3. Claims 25 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Tavares, Necsoiu, Zennaro, and Villars. Final Act. 38.

CLAIM GROUPING

Based on Appellant's arguments (App. Br. 15–35), we decide the appeal of patent-ineligible subject matter Rejection R1 of claims 1, 2, 5–9, 11–14, 17–21, and 23–26 on the basis of representative claim 1; and we also decide the appeal of obviousness Rejection R2 of claims 1, 2, 5–9, 11–14, 17–21, 23, and 24 on the basis of representative claim 1.

Remaining claims 25 and 26 in Rejection R3, not argued separately or substantively, stand or fall with the respective independent claims from which they depend.<sup>3</sup>

### ISSUES AND ANALYSIS

In reaching this decision, we consider all evidence presented and all arguments actually made by Appellant. We do not consider arguments Appellant could have made but chose not to make in the Briefs, and we deem any such arguments waived. 37 C.F.R. § 41.37(c)(1)(iv).

We disagree with Appellant's arguments with respect to claims 1, 2, 5–9, 11–14, 17–21, and 23–26 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 Appellant's arguments. We highlight and address specific findings and arguments regarding claim 1 for emphasis as follows.

1. § 101 Rejection R1 of Claims 1, 2, 5–9, 11–14, 17–21, and 23–26

Issue 1

Appellant argues (App. Br. 15–35; Reply Br. 4–17) the Examiner's rejection of claim 1 under 35 U.S.C. § 101 as being directed to patent-

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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).

ineligible subject matter is in error. These contentions present us with the following issue:

Did the Examiner err in concluding claim 1 is directed to an abstract idea without significantly more, and is thus patent-ineligible under 35 U.S.C. § 101?

Analysis

*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. *Id.*

The Supreme Court's two-part *Mayo/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." *Id.* (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). While 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).

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 Texas, 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*

Our reviewing court has held claims ineligible as being 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. 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. *Alice*, 134 S. Ct. at 2354 ("[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law.").

Appellant generally contends, "the alleged abstract idea is not a properly identified 'abstract idea' . . . . [T]he July 2015 Update stresses that a claimed concept should not be identified as an abstract idea **unless it is similar to at least one concept** that the courts have identified as an abstract idea." App. Br. 17.

Along these lines, Appellant further argues:

[T]he body of case law precedent set by the Supreme Court and the Court of Appeals for the Federal Circuit does not identify an "abstract idea" that is similar to that of the alleged "providing of characteristic payments data, specifically the providing of a data file of a geographic information system (GIS) file format including characteristic data for a plurality of payment transactions."

*Id.*

In addition, Appellant contends:

Contrary to *SmartGene*,<sup>[4]</sup> Appellant's independent claim 1 recites several specifically configured computer components and generates a very specific data file, in a very specific file format (GIS file format), that illustrates (e.g., depicts) calculated metrics, while maintaining consumer privacy, and subsequently transmits an output file (including the generated data file in GIS format) for display on a computing device. A GIS file format, as understood in the art, is a standard of encoding geographic information into a file (e.g., geocoding) and, thus, requires the use of specific GIS software to produce such a file. GIS software, as that implemented by independent claim 1 in order to generate a GIS file, transforms, manipulates, analyzes, and produces information related to the surface of the Earth (see, the attached documents discussing GIS files and associated required software), and in the present claims, specific to a desired geographic area. Thus, it is clear that the method of independent claim 1 **transforms** data from one form into another form (i.e., into anonymized, privacy compliant, visual displays of characteristic metrics). Such a transformation

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<sup>4</sup> Appellant alleges the Examiner "makes reference to *SmartGene, Inc. v. Advanced Biological Labs., SA*, No. 2013-1186 (Fed. Cir. Jan. 24, 2014) (non-precedential) and *Cyberfone Systems v. CNN Interactive Group*, No. 12-1673 (Fed. Cir. 2014) (non-precedential)." App. Br. 17. We find no such reference by the Examiner to these non-precedential cases in the Final Action or in the Answer.

of data and transmission of an output file could not be performed without a computer, e.g., in a person's head, as in *SmartGene*, and is, thus, not abstract, as alleged.

App. Br. 19.

In response, the Examiner states he "followed the two prong test set forth in the *Alice* decision and the Preliminary and Interim guidance. Each of the steps presented in the claims merely recites a determination or calculation that would constitute an abstract idea of itself. (See July 2015 update)," and the fact that the claims perform steps using a computer does not make the underlying idea any less abstract. Ans. 4. This is consistent with the Final Action, in which the Examiner concluded:

Regarding claim 1, the claim is directed to the providing of characteristic payments data, specifically the providing of a data file of a geographic information system (GIS) file format including characteristic data for a plurality of payment transactions which is analogous to comparing new and stored information and using rules to identify options ((79 FR 74618, 74622) see Section 1.2 bullet point 6) and is also analogous to using categories to organize, store and transmit information.

Final Act. 3. The Examiner further concluded the claimed invention "is considered to be an abstract idea inasmuch as such activity is considered a method of organizing human activity or an idea of itself with all or a majority of the [claimed limitations] recited at a high level of generality and merely acted upon by a user." Final Act. 4.<sup>5</sup>

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<sup>5</sup> The Examiner notes, "[t]he interim guidance provides examples of instances where courts have held certain ideas to be abstract. It was through these examples that the examiner determined, by analogy to the provided examples, that the claims in the present application contain an abstract idea." Ans. 5.

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-implemented method for providing characteristic payments data." Claim 1 (preamble).

Method claim 1's limitations also require the steps of:

(a) "receiving . . . data";

(b) "storing . . . data entries . . . including data related to a financial transaction including at least transaction data, consumer information, merchant information, and a geographic location, wherein the consumer information included in each of the stored plurality of transaction data is not personally identifiable;"

(c) "receiving . . . a request for payment transaction characteristics . . . wherein the request for payment transaction characteristics includes at least one desired payment transaction characteristic metric and a desired geographic area;"

(d) "in response to the request . . . identifying . . . a subset of the plurality of transaction data entries . . . wherein the geographic location . . . matches the desired geographic area included in the request. . . ;"

(e) "calculating . . . the at least one desired payment transaction characteristic metric based on an analysis of at least one of: the transaction data, consumer information, and merchant information of each transaction data entry of the identified subset of the plurality of stored transaction data entries;"

(f) "generating . . . a data file in a geographic information system (GIS) file format . . . ;" and

(g) "transmitting . . . an output file including the generated data file . . . wherein the transmission of the output file causes a display of the external requesting entity to display the generated data file."

Under step one, we agree with the Examiner that the inventions claimed in each of independent claims 1 and 13 are directed to an abstract idea, i.e., comparing data and using rules to identify options related to payment transactions, which we also conclude is a method of organizing human activity. *See* Ans. 4–5.

As the Specification discloses, "[t]he present disclosure relates to the providing of characteristic payments data, specifically the providing of a data file of a geographic information system (GIS) file format including characteristic data for a plurality of payment transactions." Spec. ¶ 1.<sup>6</sup> We find this type of activity, i.e., comparing new and stored information and using rules to identify options, for example, includes longstanding conduct that existed well before the advent of computers and the Internet, and could

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<sup>6</sup> *See also* Spec. 32 ("Abstract"):

A method for providing characteristic payments data includes: storing a plurality of transaction data entries, each data entry including transaction data, consumer information, merchant information, and a geographic location; receiving a request for characteristics, the request including a characteristic metric and specified geographic area; identifying a subset of data entries, where the geographic location is included in the specified geographic area; identifying the characteristic metric based on at least one of: the transaction data, consumer information, and merchant information of each data entry in the subset; generating a data file illustrating the identified characteristic metric as applied to the specified geographic area, wherein the data file is of a geographic information system (GIS) file format; and transmitting the generated data file in response to the received request for characteristics.

be carried out by a human with pen and paper. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) ("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>7</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*, they continue 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, 1146–47 (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.*

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<sup>7</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.

*Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017). Further, a process that employs mathematical algorithms to manipulate existing information to generate additional information is abstract. *Digitech Image Techs., LLC v. Elec. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014). Also, more recently, our reviewing court has also concluded that acts of parsing, comparing, storing, and editing data are abstract ideas. *Berkeimer 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. 25. We agree with the Examiner's response, which we incorporate herein by reference. Ans. 6–7; and see *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (collecting cases); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) ("While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility").

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>8</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.

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<sup>8</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).

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

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 identifying, collecting, storing, comparing, and generating data into a patent-eligible application of that abstract idea. *See Ans. 7–9.*<sup>9</sup>

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<sup>9</sup> The Examiner concludes:

The claims here are not directed to a specific improvement to computer functionality, rather, they are directed to the use of conventional or generic computer technology in a nascent but

The Examiner further concludes "the computer components are generic components that are routine and conventional. . . . [T]he computer elements recited in claim 1 are '*a processing server*' (generic computer and server), '*transaction database*' (generic database), '*a display*' (generic display device). There is nothing about the elements cited that rise to the level of a special-purpose computer." Ans. 8.

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 51 through 60. For example:

**[0051]** FIG. 7 illustrates a computer system 700 in which embodiments of the present disclosure, or portions thereof, may be implemented as computer-readable code. For example, the processing server 102 of FIG. 1 may be implemented in the computer system 700 using hardware, software, firmware, non-transitory computer readable media having instructions stored thereon, or a combination thereof and may be implemented in one or more computer systems or other processing systems. Hardware, software, or any combination thereof may embody

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well-known environment, without any claim that the invention reflects an inventive solution to any problem by combining the two.

Ans. 7–8.

modules and components used to implement the methods of FIGS. 3 and 6.

**[0052]** If programmable logic is used, such logic may execute on a commercially available processing platform or a special purpose device. A person having ordinary skill in the art may appreciate that embodiments of the disclosed subject matter can be practiced with various computer system configurations, including multi-core multiprocessor systems, minicomputers, mainframe computers, computers linked or clustered with distributed functions, as well as pervasive or miniature computers that may be embedded into virtually any device. For instance, at least one processor device and a memory may be used to implement the above described embodiments.

**[0053]** A processor device as discussed herein may be a single processor, a plurality of processors, or combinations thereof. Processor devices may have one or more processor "cores." The terms "computer program medium," "non-transitory computer readable medium," and "computer usable medium" as discussed herein are used to generally refer to tangible media such as a removable storage unit 718, and a hard disk installed in hard disk drive 712.

**[0054]** Various embodiments of the present disclosure are described in terms of this example computer system 700. After reading this description, it will become apparent to a person skilled in the relevant art how to implement the present disclosure using other computer systems and/or computer architectures. Although operations may be described as a sequential process, some of the operations may in fact be performed in parallel, concurrently, and/or in a distributed environment, and with program code stored locally or remotely for access by single or multi-processor machines. In addition, in some embodiments the order of operations may be rearranged without departing from the spirit of the disclosed subject matter.

**[0055]** Processor device 704 may be a special purpose or a general purpose processor device. The processor device 704 may be connected to a communication infrastructure 706, such

as a bus, message queue, network, multi-core message-passing scheme, etc. The network may be any network suitable for performing the functions as disclosed herein and may include a local area network (LAN), a wide area network (WAN), a wireless network (e.g., WiFi), a mobile communication network, a satellite network, the Internet, fiber optic, coaxial cable, infrared, radio frequency (RF), or any combination thereof. Other suitable network types and configurations will be apparent to persons having skill in the relevant art. The computer system 700 may also include a main memory 708 (e.g., random access memory, read-only memory, etc.), and may also include a secondary memory 710. The secondary memory 710 may include the hard disk drive 712 and a removable storage drive 714, such as a floppy disk drive, a magnetic tape drive, an optical disk drive, a flash memory, etc.

Spec. ¶¶ 51–55.

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>10</sup>

With respect to the Step 2 analysis, we agree with the Examiner because, as in *Alice*, the recitation of either a "computer-implemented method for providing characteristic payments data" using a "server" and a

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<sup>10</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).

"database" (claim 1), or an "electronic system for providing characteristic payments data" having a server with a processing device and a database (claim 13) 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.").<sup>11</sup>

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, 5–9, 11–14, 17–21, and 23–26, not argued separately, and which fall therewith. *See Claim Grouping, supra*.<sup>12</sup>

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<sup>11</sup> Appellant merely alleges:

[T]he technical solution provided by the instant claims is *inextricably* tied to (inseparable from) the recited computer-implemented environment to address a problem that heretofore went unsolved in conventional financial transaction systems, wherein sufficient characteristic data could not be calculated and provided to a requesting party without compromising consumer privacy.

Independent claim 1, similar to those claims found to be patent eligible in *DDR Holdings*, is "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks."

App. Br. 26.

<sup>12</sup> While it may appear that Appellant offers a separate patent eligibility argument for independent claim 13 by use of a separate heading, Appellant merely states "[i]ndependent claim 13 includes the same recitations as independent claim 1, but is directed towards a respective specifically configured electronic system rather than a computer-implemented method" (App. Br. 33), and "[i]ndependent claim 33 [sic] recites similar computer

2. § 103 Rejection R2 of Claims 1, 2, 5–9, 11–14, 17–21, 23, and 24

Issue 2

Appellant argues (App. Br. 6–14; Reply Br. 3–4) the Examiner's rejection of claim 1 under 35 U.S.C. § 103(a) as being obvious over the combination of Tavares, Necsoiu, and Zennaro is in error. These contentions present us with the following issue:

Did the Examiner err in finding the cited prior art combination teaches or suggests "[a] computer-implemented method for providing characteristic payments data" wherein, *inter alia*, "the consumer information included in each of the stored plurality of transaction data is not personally identifiable," as recited in claim 1?

Analysis

"[O]ne cannot show non-obviousness by attacking references individually where . . . the rejections are based on combinations of references." *In re Keller*, 642 F.2d 413, 426 (CCPA 1981). "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference . . . . Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." *Id.* at 425.

Appellant contends "personally identifiable information (PII) includes information that may be used, alone or in conjunction with other sources, to uniquely identify an individual. **Examples of personally identifiable**

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components and technical functional features, as does claim 1. Therefore, arguments similar to those presented above with respect to claim 1 are also applicable to claim 13." App. Br. 34. We find these arguments are not truly separate arguments.

**information include, names, social security numbers, residential addresses, account numbers, etc."** App. Br. 7. Appellant further states:

[A] premise of Appellant's claims pertains to a unique functionality of providing a generated privacy compliant data file of a geographic information system (GIS) file format illustrating one or more characteristic payment data. Consumer information is non-personally identifiable and, thus, consumer PII is not used in the generation of the GIS data file. As a result consumer privacy is maintained so that consumer may not be individually identified.

*Id.*

In combination with *Tavares* and *Necsoiu*, the Examiner cites *Zennaro* as teaching or suggesting removing personally identifiable information from transaction records. Final Act. 15 (citing *Zennaro* col. 5, ll. 27–39). The Examiner additionally cites *Zennaro* (col. 4, ll. 14–18) as teaching or suggesting having the ability to set permissions to allow gathering or utilization of certain information. Final Act. 15. The Examiner also finds "[r]emoval of Personally Identifiable Information, or permission to use Personally Identifiable Information is well known in the art and many different methods are known in the art to remove, contain or control Personally Identifiable Information[]." Final Act. 15–16.

Appellant contends, "[c]ontrary to the present claims, however, *Tavares* discloses the use of personally identifiable information (e.g., account holder's residential address, account numbers, names) in the generation of reports." App. Br. 9 (citing *Tavares* ¶¶ 11–14, 217, and 219). Appellant further argues *Zennaro*'s teaching "cannot be applied to *Tavares* without destroying the original principal of operation of the *Tavares* document." App. Br. 11.

Contrary to Appellant's argument that the combination would have changed Tavares principle of operation, it is well settled that "a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements." *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012) (citations omitted). Nor is the test for obviousness whether a secondary reference's features can be bodily incorporated into the structure of the primary reference. *See Keller*, 642 F.2d at 425.

We agree with the Examiner's finding:

While Tavares may not disclose modifying the reports to remove personally identifiable information, it is an over extension to then say that doing so would completely destroy the function of the invention disclosed in Tavares. A person of ordinary skill is a person of ordinary creativity as well. It is not beyond the skill of a person or ordinary skill in the art to take a report with information regarding customers and their transactions and with the teachings of Zennaro, remove personally identifiable information, and still be able to use the information in the report to provide useful information. The effects of removing personally identifiable information is well known in the art and clearly taught by Zennaro in the paragraphs cited in the above action. It is not beyond a person with ordinary skill in the art to be able to combine this with the teachings of Tavares and arrive at a method that provides reports of transaction information that do not disclose the personally identifiable information of those the information was gathered from.

Ans. 3–4. We agree with the Examiner because we find that Appellant's invention is simply a combination of known teachings that realize a predictable result. The Supreme Court has determined the conclusion of obviousness can be based on the interrelated teachings of multiple patents,

the effects of demands known to the design community or present in the marketplace, and the background knowledge possessed by a person having ordinary skill in the art. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). The skilled artisan would "be able to fit the teachings of multiple patents together like pieces of a puzzle" since the skilled artisan is "a person of ordinary creativity, not an automaton." *Id.* at 420–21.

Therefore, based upon the findings above, on this record, we are not persuaded of error in the Examiner's reliance on the cited prior art combination to teach or suggest the disputed limitation of claim 1, nor do we find error in the Examiner's resulting legal conclusion of obviousness. Therefore, we sustain the Examiner's obviousness rejection of independent claim 1, and grouped claims 2, 5–9, 11–14, 17–21, 23, and 24 which fall therewith. *See Claim Grouping, supra.*

3. § 103 Rejection R3 of Claims 25 and 26

In view of the lack of any substantive or separate arguments directed to obviousness Rejection R3 of claims 25 and 26 under § 103 (*see App. Br. 14*), we sustain the Examiner's rejection of these claims. Arguments not made are waived.<sup>13</sup>

REPLY BRIEF

To the extent Appellant *may* advance new arguments in the Reply Brief (Reply Br. 2–17) 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

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<sup>13</sup> Appellant merely argues, "[t]hese claims depend, directly or indirectly, from one of the independent claims and are therefore patentably distinct from the applied documents at least due to their respective dependencies." App. Br. 14.

raised in the Appeal Brief or are not responsive to arguments raised in the Examiner's Answer will not be considered except for good cause (*see* 37 C.F.R. § 41.41(b)(2)), which Appellant has not shown.

#### CONCLUSIONS

(1) The Examiner did not err with respect to patent-ineligible subject matter Rejection R1 of claims 1, 2, 5–9, 11–14, 17–21, and 23–26 under 35 U.S.C. § 101, and we sustain the rejection.

(2) The Examiner did not err with respect to obviousness Rejections R2 and R3 of claims 1, 2, 5–9, 11–14, 17–21, and 23–26 under 35 U.S.C. § 103(a) over the cited prior art combinations of record, and we sustain the rejections.

#### DECISION

We affirm the Examiner's decision rejecting claims 1, 2, 5–9, 11–14, 17–21, and 23–26.

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