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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* ALEXANDRA LIPTSEY-RAHE, TOM MERCER,  
ALESSANDRO ORFEI, and ALEX KINNIER

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Appeal 2020-002243  
Application 14/700,590<sup>1</sup>  
Technology Center 3600

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Before JOSEPH A. FISCHETTI, MICHAEL R. ZECHER, and  
CYNTHIA L. MURPHY, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1–5, 7–15, and 17–25. Final Act. 1.<sup>2</sup> Claims 6 and 16 have been cancelled. *Id.* at 2. We have jurisdiction under 35 U.S.C. § 6(b).

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Oracle International Corporation as the real party in interest. Appeal Br. 2.

<sup>2</sup> All references to the Final Office Action under appeal refer to the Final Office Action entered March 12, 2019.

## SUMMARY OF DECISION

We AFFIRM.

### THE INVENTION

Appellant states the invention “generally relates to behavioral demand response using substation meter data.” Spec. ¶ 2.

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

1. A computer-implemented method performed by a computing system including at least one processor, the method comprising:

identifying, by the at least one processor, a first substation from a plurality of substations, and assigning the first substation as a treatment group, wherein the first substation is configured to provide a resource to a first plurality of customers, and comprises one or more meters for measuring first meter data comprising an aggregate quantity of the resource supplied by the first substation to the first plurality of customers, as a group;

identifying, by the at least one processor, a second substation from the plurality of substations, and assigning the second substation as a control group, wherein the second substation is configured to provide the resource to a second plurality of customers, and comprises one or more meters for measuring second meter data comprising an aggregate quantity of the resource supplied by the second substation to the second plurality of customers, as a group;

transmitting, via a communication network, a pre-event notification to a plurality of remote devices, each of the remote devices being associated with one of the first plurality of customers in the treatment group, wherein the pre-event notification is part of a campaign and includes information regarding a demand response event and a request to reduce usage of the resource during the demand response event; and

at a time after the demand response event:

receiving the first meter data measured by the one or more meters for the first substation in the treatment group during the demand response event;

receiving the second meter data measured by the one or more meters for the second substation in the control group during the demand response event;

measuring an efficacy of the campaign by:  
(i) determining an actual usage for the first substation in the treatment group during the demand response event based on the received first meter data measured by the one or more meters provided to the first substation, (ii) determining an actual usage for the second substation in the control group during the demand response event based on the received second meter data measured by the one or more meters provided to the second substation, and (iii) comparing an aggregate of the actual usage for the first substation in the treatment group, with an aggregate of the actual usage for the second substation in the control group to determine a change in actual usage of the resource between the treatment group and the control group caused by the pre-event notifications; and

transmitting a comparison result to a third party device to indicate the efficacy of the campaign to cause changes in a subsequent demand response campaign.

Appeal Br. 37–39 (Claims Appendix).

### THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Name	Reference	Date
Synesiou	US 7,873,441 B2	Jan. 18, 2011
Platt	US 8,375,068 B1	Feb. 12, 2013
Matsuoka	US 9,807,099 B2	Oct. 31, 2017
Li	US 2015/0066594 A1	Mar. 5, 2015

The following rejections are before us for review.

Claims 1–5, 7–15, and 17–25 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.

Claims 1–5 and 7–12 are rejected under 35 U.S.C. § 103 as being unpatentable over Matsuoka in view of Li, in further view of Synesiou and in further view of Platt.

Claims 13–15 and 17–25 are rejected under 35 U.S.C. § 103 as being unpatentable over Matsuoka in view of Synesiou and in further view of Platt.

#### FINDINGS OF FACT

1. We adopt the Examiner’s findings as set forth in the Final Office Action and in the Examiner’s Answer, concerning both the 35 U.S.C. § 101 and the 35 U.S.C. § 103 rejections.
2. The Examiner (at Final Act. 15) found Matsuoka discloses:  
receiving the first meter data measured by the one or more meters for the first substation in the treatment group during the demand response event;  
...[Matsuoka, column 20 lines 53-58, Matsuoka teaches “Processing engine 406 can include engines configured to receive data from a set of devices (e.g., via the Internet or a hubbed network), to index the data, to analyze the data and/or to generate statistics based on the analysis”].

3. Li discloses: “In a randomized experiment, a study sample can be divided into two groups: one receiving the intervention being studied (e.g. the treatment group) and the other not receiving it (e.g. the control group).” Li ¶ 146.

4. Synesiou discloses:

In sum, the system may provide a user interface that presents to a user reporting options to derive reports from data stored in the system databases including: resource consumption measured for loads, resource consumption measured for groups of loads, rates of resource consumption for loads, rates of resource consumption for groups of loads.

*Id.* at col. 38, ll. 46–51.

5. The Examiner (at Final Act. 18.) cites to:

[Platt, column 9 lines 47-55, Platt teaches a user is able to select a baseline period to compare against, based on previous usage period. Comparison can be reduction (difference)].

## ANALYSIS

### 35 U.S.C. § 101 REJECTION

We affirm the Examiner’s rejection of claims 1–5, 7–15, and 17–25 under 35 U.S.C. § 101.

The Appellant argues claims 1–5, 7–15, and 17–25 as a group. We select claim 1 as the representative claim for this group (Appeal Br. 13), and so the remaining claims stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2019).

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[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 Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Alice*, 573 U.S. 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 id.* at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

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

252, 267–68 (1854)); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 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 Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (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.*

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) (“Guidance”).<sup>3</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.<sup>4</sup>

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* MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) § 2106.05(a)–(c), (e)–(h) (9th Ed., Rev. 10.2019, June 2020)) (“Step 2A, Prong Two”).<sup>5</sup>

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<sup>3</sup> In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 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)).

<sup>4</sup> The Guidance supersedes MPEP § 2106.04 and also supersedes all versions of the USPTO’s “Eligibility Quick Reference Sheet Identifying Abstract Ideas.” *See* 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.”). Accordingly, Appellant’s arguments challenging the sufficiency of the Examiner’s rejection will not be addressed to the extent those arguments are based on now superseded USPTO guidance.

<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

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.

Guidance, 84 Fed. Reg. at 52–56. The U.S. Court of Appeals for the Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the [S]pecification, 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 Enfish*, 822 F.3d at 1335–36.

In so doing, as indicated above, we apply a “directed to” two prong test: (1) evaluate whether the claim recites a judicial exception, and (2) if the claim recites a judicial exception, evaluate whether the claim “appl[ies], rel[ies] on, or use[s] the judicial exception in a manner that imposes a meaningful limit on the judicial exception,

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determine whether the claim, as a whole, integrates the exception into a practical application. *See* Guidance - Section III(A)(2), 84 Fed. Reg. at 54–55.

such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Guidance, 84 Fed. Reg. at 53; *see also* MPEP §§ 2106.04–2106.05.

Accordingly, we find:

The Specification states:

Peak resource consumption events or “peak events” can occur multiple times per year for a given resource (e.g., electricity, gas, or water). For example, a peak event for a utility may occur during one or more hot days due to heavy air-conditioning loads. During a peak event, a resource provider (e.g., utility) may have difficulty meeting demand, which may result in a blackout, higher utility rates, and/or a need to put one or more additional electric power generators online.

*Id.* ¶ 23.

To address this problem, resource providers (e.g., utility company) may initiate a demand response event to reduce resource demand during a peak event. A demand response event may refer to actions that are taken to reduce resource energy demand during a peak event. A demand response event may involve implementing a demand response campaign or program, in which communications are sent to utility customers (e.g., via electronic mail, regular mail, etc.) before the peak event. Each communication may inform the respective customer of the upcoming peak event and ask the customer to reduce usage during the peak event. After the peak event, each customer may receive a post-event notification providing the customer with feedback on how much energy he/she saved during the peak event (e.g., compared to a previous peak event and/or other customers).

*Id.* ¶ 24.

After the groups are formed, customers in the treatment group are enrolled in the demand response campaign (e.g., receive pre-event notifications) while customers in the control group are not. After the peak event, usage data for the control

group during the peak event may be compared with usage data for the treatment group to measure the efficacy of the campaign. For example, the usage data for the treatment group and control group may be used to determine whether the treatment group reduced usage during the peak event compared to the control group. Thus, the efficacy of the demand response campaign can be measured using usage data collected at the substation level.

*Id.* ¶ 30.

Understood in light of the Specification, claim 1 recites, in pertinent part,

identifying, . . . a first substation from a plurality of substations, and assigning the first substation as a treatment group, wherein the first substation is configured to provide a resource to a first plurality of customers, and comprises one or more meters for measuring first meter data comprising an aggregate quantity of the resource supplied by the first substation to the first plurality of customers, as a group;

identifying, . . . a second substation from the plurality of substations, and assigning the second substation as a control group, wherein the second substation is configured to provide the resource to a second plurality of customers, and comprises one or more meters for measuring second meter data comprising an aggregate quantity of the resource supplied by the second substation to the second plurality of customers, as a group;

transmitting, . . . a pre-event notification to . . . one of the first plurality of customers in the treatment group, wherein the pre-event notification is part of a campaign and includes information regarding a demand response event and a request to reduce usage of the resource during the demand response event; and

at a time after the demand response event:

receiving the first meter data measured by the one or more meters for the first substation in the treatment group during the demand response event;

receiving the second meter data measured by the one or more meters for the second substation in the control group during the demand response event;

measuring an efficacy of the campaign by: (i) determining an actual usage for the first substation in the treatment group during the demand response event based on the received first meter data measured by the one or more meters provided to the first substation, (ii) determining an actual usage for the second substation in the control group during the demand response event based on the received second meter data measured by the one or more meters provided to the second substation, and (iii) comparing an aggregate of the actual usage for the first substation in the treatment group, with an aggregate of the actual usage for the second substation in the control group to determine a change in actual usage of the resource between the treatment group and the control group caused by the pre-event notifications; and transmitting a comparison result to a third party device to indicate the efficacy of the campaign to cause changes in a subsequent demand response campaign.

Appeal Br. 37–39 (Claims Appendix).

The Examiner found claim 1 recites,

advertising, marketing or sales activities or behaviors, and business relations[, and a] mental grouping. A human can use the claimed method to compare meter data of the treated group and the meter data of the control group to find the efficacy of a utility campaign without using a computer. This is a mental process that can be performed using a pen and a paper.

(Final Act. 11.)

Accordingly, we find that claim 1 recites measuring an efficacy of a campaign targeted to a treatment group which receives a pre-event notification, as compared to that of a control group not receiving the notification, to determine a change in actual usage of a resource between the treatment group and the control group caused by the pre-event notifications.

We thus agree with the Examiner that claim 1 recites, *inter alia*, a mental process. Claim limitations such as,

measuring an efficacy of the campaign by: (i) determining an actual usage for the first substation in the treatment group during the demand response event based on the received first meter data measured by the one or more meters provided to the first substation, (ii) determining an actual usage for the second substation in the control group during the demand response event based on the received second meter data measured by the one or more meters provided to the second substation, and (iii) comparing an aggregate of the actual usage for the first substation in the treatment group, with an aggregate of the actual usage for the second substation in the control group to determine a change in actual usage of the resource between the treatment group and the control group caused by the pre-event notifications,

are concepts performed in the human mind as mental processes. These steps are akin to the steps of receiving, transmitting, storing, and analyzing data mimic human thought processes of observation, evaluation, judgment, and opinion, perhaps with paper and pencil, where the data interpretation is perceptible only in the human mind. *See In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016), *see also* Guidance, 84 Fed. Reg. at 52.

Turning to the second prong of the “directed to” test, claim 1 only generically requires “at least one processor” and “a communication network.” These components are described in the specification at a high level of generality. *See* Spec. ¶¶ 31, 36, 38, 39, Fig. 1, items 140, 155. We fail to see how the generic recitations of these most basic computer components and/or of a system so integrates the judicial exception as to

“impose[] a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Guidance, 84 Fed. Reg. at 53. We find no indication in the Specification, nor does Appellant direct us to any indication, that the operations 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.”).

Thus, we find that the claims recite the judicial exception of a mental process that is not integrated into a practical application.

That the claims do not preempt all forms of the abstraction or may be limited to resource usage, does not make them any less abstract. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (“And that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”).

Turning to the second step of the *Alice* analysis, because we find that the claims are directed to abstract ideas/judicial exceptions, the claims must include an “inventive concept” in order to be patent-eligible, i.e., there must be an element or combination of elements sufficient to ensure that the claim in practice amounts to significantly more than the abstract idea itself. *See Alice*, 573 U.S. at 217–18 (quoting *Mayo*, 566 U.S. at 72–73).

Concerning this step the Examiner found the following:  
The[] additional elements are recited at a high-level of generality such that it amounts no more than mere instructions to apply the exception using computer component, or merely uses a computer as a tool to perform an abstract idea - see MPEP 2106.05(f). Accordingly, these additional elements do not integrate the abstract idea into a practical application because they do not impose any meaningful limits on practicing the abstract idea. The claims are directed to an abstract idea with no significantly more elements.

Final Act. 12. We agree with the Examiner. “[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Alice*, 573 U.S. at 225. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to retrieve, select, and apply decision criteria to data and modify the data as a result amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the industry. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016); *see also In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming”). In short, each step does no more than require a generic computer to perform generic computer functions. The claims do not, for example, purport to improve the functioning of the computer itself. In addition, as we stated above, the claims do not effect an improvement in any

other technology or technical field. The Specification spells out different generic equipment and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of information access under different scenarios. (*See, e.g.*, Spec. ¶¶ 31, 36, 38, 39, Fig. 1, items 140, 155). Thus, the claims at issue amount to nothing significantly more than instructions to apply the abstract idea using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 225–226.

Considered as an ordered combination, the computer components of Appellant’s claims add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis (i.e., identify, transmit, receive, measure, determine, transmit) and store is equally generic and conventional or otherwise held to be abstract. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction), *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that sequence of data retrieval, analysis, modification, generation, display, and transmission was abstract), *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (holding sequence of processing, routing, controlling, and monitoring was abstract). The ordering of the steps required by claim 1 is, therefore, ordinary and conventional.

We have reviewed all the arguments Appellant has submitted concerning the patent-eligibility of the claims before us that stand rejected under 35 U.S.C. § 101. (Appeal Br. 13–36, Reply Br. 2–6.) We find that

our analysis above substantially covers the substance of all the arguments, which have been made. But, for purposes of completeness, we will address various arguments in order to provide individual rebuttals.

Appellant argues: “The claim limitations cannot reasonably or practically be performed in the mind. The human mind cannot implement demand response campaigns to limit demand for energy during a peak event.” (Appeal Br. 16.) Appellant further argues,

the claims cannot be interpreted to be performed in the human mind because such an interpretation is not reasonable and inconsistent with the both the specification and the explicitly recited limitations in the claim. Nothing in the present specification suggests in any way that the invention can be performed in the human mind.

(*Id.* at 17.)

As early as *Parker v. Flook*, the Supreme Court held that calculations, while “primarily useful for computerized calculations producing automatic adjustments in alarm settings,” “can [still] be made by pencil and paper calculations.” *Parker*, 437 U.S. at 586. As such, the Supreme Court did not deem the alleged primacy of computer implementation to be persuasive in its 35 U.S.C. § 101 analysis. Appellant here has not produced evidence showing that the claimed computations cannot be made by human interaction using a pen and paper. Instead, Appellant appears to be relying on attorney argument alone. It is well settled that merely using a computer to perform more efficiently what could otherwise be accomplished manually does not confer patent-eligibility. *See Bancorp Servs. v. Sun Life Assur.*, 687 F.3d 1266 at 1279 (Fed. Cir. 2012) (“Using a computer to accelerate an ineligible mental process does not make that process patent-eligible.”);

*MySpace v. Fox Audience Network*, 672 F.3d 1250 at 1267 (Fed. Cir. 2012) (“While running a particular process on a computer undeniably improves efficiency and accuracy, cloaking an otherwise abstract idea in the guise of a computer-implemented claim is insufficient to bring it within section 101.”).

Although we agree with Appellant that the claims must be read, as a whole (Appeal Br. 18–19), we nevertheless find, on balance, that claim 1 is directed to at least a mental process for the reasons specified above with respect to our “directed to” findings. As we found *supra*, claim 1 only includes the following generically recited device limitations: “at least one processor” and “a communication network.” What remains in the claim after disregarding these device limitations, are abstractions, such as:

measuring an efficacy of the campaign by: (i) determining an actual usage for the first substation in the treatment group during the demand response event based on the received first meter data measured by the one or more meters provided to the first substation, (ii) determining an actual usage for the second substation in the control group during the demand response event based on the received second meter data measured by the one or more meters provided to the second substation, and (iii) comparing an aggregate of the actual usage for the first substation in the treatment group, with an aggregate of the actual usage for the second substation in the control group to determine a change in actual usage of the resource between the treatment group and the control group caused by the pre-event notifications.

“[A] claim for a *new* abstract idea is still an abstract idea.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (citing *Mayo*, 566 U.S. at 90).

The question of what the claims, as a whole, are directed to may be distilled down to two components, i.e., do the claims “focus on a specific

means or method that improves the relevant technology,” or are they “directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). In this case, claim 1, as a whole, is focused on measuring an efficacy of a campaign to a treatment group which receives a pre-event notification, as compared to that of a control group not receiving the notification, to determine a change in actual usage of the resource between the treatment group and the control group caused by the pre-event notifications. In other words, nothing in claim 1 purports to improve computer functioning or “effect an improvement in any other technology or technical field.” *Alice*, 550 U.S. at 225.

Appellant further argues: “The Examiner has failed to answer or show why these are not improvements to a computer and/or technological processes of a computer. The Examiner’s conclusory opinion that the invention is not a technological improvement has no legal merit.” (Appeal Br. 22.)

We disagree with Appellant. Although Appellant lists various excerpts from the Specification as examples of purported improvements to a power grid system (Appeal Br. 21–22), it does so without providing evidence that they are improvements in the computer that controls the grid as contrasted with advancing a campaign to effect human behavior consumption of the grid system. Although the “at least one processor” and “a communication network” are by definition in some sense technological, their use has become so notoriously settled that merely invoking them is no more than abstract conceptual advice to use well known technology for its intended purpose. *See In re TLI Commc ’ns*, 823 F.3d at 612–613 (Using a

generic telephone for its intended purpose was a well-established “basic concept” sufficient to fall under *Alice* step 1.)

Appellant also argues, “[t]he recited combination of elements is not well-understood, routine, and conventional. The §101 rejection is not supported by the Examiner with any proper evidence to refute this fact.” (Appeal Br. 25.)

We disagree with Appellant. As described above, the only claim elements beyond the abstract idea are “least one processor” and “a communication network.” Appellant cannot reasonably deny that the operation of a “computer processor” and a “communication network” is well-understood, routine, or conventional. Indeed, 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) (citations omitted); *see also BSG Tech LLC*, 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.”).

The Federal Circuit in *Berkheimer* made clear that “not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). In fact, the Federal Circuit in *Berkheimer* did not require evidentiary

support for the involved claim, i.e., independent claim 1, because “[t]he limitations [of claim 1] amount to no more than performing the abstract idea of parsing and comparing data with conventional computer components.” *Id.* at 1370.

We fail to see Appellant’s view that its claims are similar to those found eligible in *Thales Visionix v. United States*, 850 F.3d 1343 (Fed. Cir. 2016). (Appeal Br. 27–30). In *Thales*, the Federal Circuit reasoned, “[j]ust as the claims in *Diehr* reduced the likelihood that the rubber molding process would result in ‘overcuring’ or ‘undercuring,’ *id.* at 187, 101 S.Ct. 1048, the claims here result in a system that reduces errors in an inertial system that tracks an object on a moving platform.” *Id.* at 1348. Looking back at *Diehr*, the Federal Circuit found “[t]hat respondents’ claims involve the transformation of an article, in this case raw, uncured synthetic rubber, into a different state or thing cannot be disputed.” *Diehr*, 450 U.S. at 184. No such transformation of matter to a different state occurs in Appellant’s claims. The claims recite steps which merely move data through the steps of identifying, transmitting, receiving, determining, measuring and comparing. Through these steps, the content of the data remains unchanged.

Likewise unpersuasive is Appellant’s argument that:

The operations performed to measure the efficacy of the campaign in the present claims reflect the location of the meters at the substations, as opposed to at a location of the individual customers. As in *Thales*, the present claims are directed to a novel application of the measured meter data aggregated at the substation to measure the efficacy of a program to reduce resource demand during a demand response event, which is unconventional, and patent eligible.

(Appeal Br. 30.)

Although the second step in the *Mayo/Alice* framework is termed a search

for an “inventive concept,” the analysis is not an evaluation of novelty or non-obviousness, but rather, a search for “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 573 U.S. at 217–218. Even still, Appellant’s asserted novel aspect is the collection of group data at the substation level. (Spec. ¶ 28.) Such an approach is conventional because it involves placing a sensor where the data for the desired grouping is already collectively measured.

Appellant argues, “[t]he patent-eligible claim in *Thales* simply recites a computer method that processes data to determine an orientation of an object. The computer makes this determination ‘based on signals from’ two inertial sensors. The claim processes data from a data source, nothing more.” (Appeal Br. 29.)

We disagree with Appellant. Claim 1 in *Thales* results in “determin[ing] an orientation of the object relative to the moving reference frame based on the signals received from the first and second inertial sensors.” No such result which reflects spatial orientations is determined in Appellant’s claim 1 before us here.

We likewise are unpersuaded by Appellant’s argument that *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016), is applicable here. (Appeal Br. 32). To the extent that Appellant argues that the use of “at least one processor” and “a communication network” makes the claims analogous to the claims at issue in *BASCOM*, we disagree. That is, in *BASCOM* the technology at issue was a

filtering system . . . located on a remote ISP [Internet Service Provider] server that associates each network account with (1) one or more filtering schemes and (2) at least one set of filtering

elements from a plurality of sets of filtering elements, thereby allowing individual network accounts to customize the filtering of Internet traffic associated with the account.

*BASCOM Global Internet*, 827 F.3d at 1346.

Thus, in *BASCOM*, it was the location of the filtering element within an ISP server which was controlling, whereas in the instant claims there is no such specific location of ordered combination elements. In contrast, all that the claims before us cover is using a known computer system for working an assigned task without a device improvement.

Appellant asserts, “[t]he Examiner did not consider the other elements of the claim in combination with whatever elements he believes are additional elements.” (Appeal Br. 33.)

We disagree with Appellant. Our review of the Final Office Action on pages 10–13 shows that the Examiner enumerated, and thus considered, all the elements of the independent claims, together with those of the dependent claims as well, and then concluded that the claims “when analyzed as a whole, are not sufficient to transform the abstract idea into a patent eligible invention.” (Final Act. 13.)

Appellant’s other arguments, including those directed to now-superseded USPTO guidance, have been considered but are not persuasive of error. (*See* 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.”))).

For the reasons identified above, we determine there are no deficiencies in the Examiner’s prima facie case of patent ineligibility of the rejected claims. Therefore, we sustain the Examiner’s § 101 rejection of claims 1–5, 7–15, and 17–25.

35 U.S.C. § 103 REJECTIONS

We affirm the Examiner's rejection of claims 1–5 and 7–12 under 35 U.S.C. § 103.

The Appellant argued claims 1–5 and 7–12 as a group. (Appeal Br. 33–34.) We select claim 1 as the representative claim for this group, and the remaining claims standing or falling with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Appellant argues,

[t]he Office Action correctly acknowledges that the combination of Matsuoka, Synesiou and Li fails to teach such limitations. The portions of Platt cited as teaching such a limitation, describe a user in a social network community comparing his/her individual energy usage with that of another user within the social network. Comparing an individual's energy usage with that of another user described by Platt is not a comparison of actual usage for a group measured at a substation, and is not used to measure an efficacy of a campaign to reduce resource supply during a demand response event as claimed in amended claim 1.

(Appeal Br. 34.)

This argument is misplaced because the Appellant is attacking the Platt reference individually when the rejection is based on a combination of references. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981); *In re Young*, 403 F.2d 754, 757–58 (CCPA 1968). Here the Examiner combines the teachings of Matsuoka, Li, Synesiou, and Platt to meet the limitations of claim 1. (Final Act. 14–19.) More particularly, claim 1's requirement of:

determining an actual usage for the first substation in the treatment group during the demand response event based on the received first meter data measured by the one or more meters

provided to the first substation, (ii) determining an actual usage for the second substation in the control group during the demand response event based on the received second meter data measured by the one or more meters provided to the second substation.

(*Id.* at . 14–16.)

The Examiner finds that Matsuoka teaches a “[p]rocessing engine 406 can include engines configured to receive data from a set of devices (e.g., via the Internet or a hubbed network), to index the data, to analyze the data and/or to generate statistics based on the analysis or as part of the analysis.” (FF 2.) Thus, the Examiner presents sufficient evidence to support a finding that a substation connected to plural customer devices is known in the art.

The Examiner then relies on Synesiou to disclose “deriving rates of resource consumption for groups of loads.” (Final Act. 16, FF 4.) Thus, Synesiou meets the limitation of dividing the devices in Matsuoka into groups, each associated with a given substation, to determine consumption for the divided groups.

The Examiner also relies on Li to further teach “a study sample can be divided into two groups: one receiving the intervention being studied (e.g. the treatment group) and the other not receiving it (e.g. the control group).” (FF. 3).

The Examiner relies on “[Platt, column 9 lines 47-55, [that] Platt teaches a user is able to select a baseline period to compare against, based on previous usage period. Comparison can be reduction (difference)].” (FF.5).

The Examiner thus determines that it would have been obvious to modify Matsuoka in view of Li and the teachings of Synesiou and Platt to meet the determining limitation listed above for the reasons set forth in the Final Action on pages 17–19, which we adopt as our own finding herein.

That Platt discloses comparing an individual's usage with that of another user and not a comparison of actual usage for a group, is of no consequence because, as noted above, both Synesiou and Li disclose comparisons of individuals' consumption by group data.

We thus find no error in the Examiner's obviousness rejection. As noted above, the Examiner provided articulated reasoning with some rational underpinning to support the obviousness conclusion as to each and every claim limitation. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Absent specific, technical arguments as to why the motivation is insufficient or why the proposed combination is more than the predictable use of prior art elements according to their established functions, we find Appellant's argument unpersuasive. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR*, 550 U.S. at 416.

We also affirm the Examiner's rejection of claims 13–15 and 17–25 under 35 U.S.C. § 103.<sup>6</sup>

Appellant's arguments to these claims are similar to those made for claims 1–5 and 7–12 above, i.e., "Platt, in combination with Matsuoka and Synesiou, fails to teach or render obvious generating a comparison of aggregate usage of the resource supplied by substations during the demand response event." (Appeal Br. 35.) We are unpersuaded for the same reasons set forth above concerning the similar argument made regarding the alleged

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<sup>6</sup> These claims were rejected under 35 U.S.C. § 103 as being obvious over Matsuoka, Synesiou, and Platt. (Final Act. 35).

deficiency in Platt. Appellant’s other arguments also are not persuasive because the mere allegation of differences between the prior art and the claim does not establish nonobviousness. *Dann v. Johnston*, 425 U.S. 219, 230 (1976). Instead, the issue is “whether the difference between the prior art and the subject matter in question ‘is a differen[ce] sufficient to render the claimed subject matter unobvious to one skilled in the applicable art.’” *Dann*, 425 U.S. at 228 (internal citation omitted).

### CONCLUSION

We conclude the Examiner did not err in rejecting claims 1–5, 7–15, and 17–25 under 35 U.S.C. § 101.

We conclude the Examiner did not err in rejecting claims 1–5, 7–15, and 17–25 under 35 U.S.C. § 103.

### DECISION

In summary:

<b>Claim(s) Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1–5, 7–15, 17–25	101	Eligibility	1–5, 7–15, 17–25	
1–5, 7–12	103	Matsuoka, Li, Synesiou, Platt	1–5, 7–12	
13–15, 17–25	103	Matsuoka, Synesiou, Platt	13–15, 17– 25	
<b>Overall Outcome</b>			1–5, 7–15, 17–25	

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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