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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SERGIO SCHULTE de OLIVEIRA,
BENJAMIN J. PURRENHAGE, and PHILIP W. SWIFT

Appeal 2018-007167
Application 14/212,719
Technology Center 3600

Before ANTON W. FETTING, MICHAEL C. ASTORINO, and AMEE A. SHAH, *Administrative Patent Judges*.

SHAH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), the Appellant[1] appeals from the Examiner's final decision to reject claims 1–16, claims 17–23 having been withdrawn. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. The Appellant identifies the real party in interest as "Crown Equipment Corporation." Appeal Br. 1.

CLAIMED SUBJECT MATTER

The Appellant's invention "relates in general to measurements of industrial vehicle usage, and in particular, to the measurement and normalization of industrial vehicle work for comparison and analysis." Spec. ¶ 2.

Claim 1 is the only independent claim on appeal, is representative of the subject matter on appeal, and is reproduced below (with added bracketing for reference):

> 1. A method of normalizing industrial vehicle performance data, comprising:
>
> [(a)] establishing at least one category where:
>
> each category is associated with a distinct, measureable activity capable of being performed by an industrial vehicle, and
>
> each category is characterized by at least one parameter;
>
> [(b)] electronically collecting data from an industrial vehicle corresponding to actual vehicle use, where the collected data satisfies at least one parameter associated with each category;
>
> [(c)] accumulating the electronically collected data according to each category;
>
> [(d)] extracting, with a battery sensor, battery information from a battery coupled to the industrial vehicle so as to measure actual energy consumed by the industrial vehicle during the vehicle use for which data is electronically collected;
>
> [(e)] creating a battery usage history from the extracted battery information;
>
> [(f)] associating for each category, a measure of work performed by that category as a function of energy consumed in performing that work by correlating the collected data accumulated into each category as a function of energy

> consumed in performing the measurable activity associated with that category from the battery usage history; and
>
> [(g)] providing an indication of the measure of work performed by the industrial vehicle based upon the accumulated data.

Appeal Br. 21 (Claims App.).

THE REJECTION

Claims 1–16 stand rejected under 35 U.S.C. § 101 as being directed to a judicial exception without significantly more.

OPINION

35 U.S.C. § 101 Framework

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. *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*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 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 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the 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 176; *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 (internal 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.*

After the Appellant's briefs were filed and the Examiner's Answer mailed, the U.S. Patent and Trademark Office ("USPTO") published revised guidance on the application of § 101. *2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance"). That guidance revised the USPTO's examination procedure with respect to the first step of the *Mayo*/*Alice* framework by (1) providing groupings of subject matter that are considered an abstract idea; and (2) clarifying that a claim is not "directed to" a judicial exception if the judicial exception is integrated into a practical application of that exception. *Id.* at 50. The 2019 Revised Guidance, by its terms, applies to all applications, and to all patents resulting from applications, filed before, on,

or after January 7, 2019. *Id.*[2] Under the 2019 Revised Guidance, 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); 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. 08.2017, Jan. 2018)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look 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.

See 2019 Revised Guidance, 84 Fed Reg. at 54, 56.

Step One of the Mayo/Alice Framework

Reciting a Judicial Exception

Under the first step of the *Mayo*/*Alice* framework and Step 2A, Prong 1 of the 2019 Revised Guidelines, 84 Fed. Reg. at 54, the Examiner determines that claim 1 is

> directed to the abstract idea of normalizing industrial vehicle performance data, as evidenced by the claim language found in

[2] The 2019 Revised Guidance supersedes MPEP § 2106.04(II) and also supersedes all versions of the USPTO's "Eligibility Quick Reference Sheet Identifying Abstract Ideas." *See* 2019 Revised Guidance, 84 Fed. Reg. at 51 ("Eligibility-related guidance issued prior to the Ninth Edition, R-08.2017, of the MPEP (published Jan. 2018) should not be relied upon.").

> claim 1, which is collecting information, analyzing it and displaying certain results of the collection and analysis (Electric Power Group); Obtaining and comparing intangible data (CyberSource); organizing information through mathematical correlations (Digitech)."

Final Act. 7 (emphases omitted). When viewed through the lens of the 2019 Revised Guidance, the Examiner's analysis depicts the claimed subject matter as a "[m]ental process[]—[a] concept[] performed in the human mind (including an observation, evaluation, judgment, opinion)" involving mathematical concepts. 2019 Revised Guidance, 84 Fed. Reg. at 52 (footnotes omitted).

The Appellant disagrees and contends that "claim 1 is directed to a specific way to compute a measure of work" and "improves the existing technological process of measuring actual work performed by industrial vehicles in a way that is vehicle independent." Appeal Br. 13. For at least the following reasons, we disagree.

Before determining whether the claim at issue is directed to an abstract idea, we first determine to what the claim is directed. The Federal Circuit has explained that "the 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether 'their character as a whole is directed to excluded subject matter.'" *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an "abstract idea" for which computers are invoked merely as a tool. *See id.* at 1335–36. Here, it is clear from the Specification, and the claim language, that the

focus of claim 1 is on an abstract idea, and not on any improvement to technology and/or a technical field.

The Specification provides for "NORMALIZING PERFORMANCE DATA ACROSS INDUSTRIAL VEHICLES." Spec., Title. In the "Background" section, the Specification discusses that "[w]ireless strategies may be deployed by business operations . . . to improve the efficiency and accuracy of business operations . . . [and] to avoid the insidious effects of constantly increasing labor and logistics costs." *Id.* ¶ 3. Further, workers utilize industrial vehicles to move around operators' facilities. *Id.* ¶ 4. "However, disruptions in the operation of such materials handling vehicles impact the ability of the management system and corresponding wireless strategy to obtain peak operating efficiency." *Id.* Existing conventional software and systems "do not account for the industrial vehicles required to perform the work required to move the items about the operator's facility." *Id.* Thus, the claimed invention "normaliz[es] performance data for the operation of industrial vehicles" so as to be "useful in evaluating industrial vehicles based upon different manufacturers, makes, models, etc." (*id.* ¶ 18) and to create a "standardized and consistent unit of measure" so that "comparative analysis (cost, efficiency or both) may be performed for aspects such as fleet operation, operational efficiency, team efficiency, and industrial vehicle operation" (*id.* ¶ 19). The Specification does not provide a definition for the term "normalizing."

Consistent with the disclosure, claim 1 recites "[a] method of normalizing industrial vehicle performance data, comprising:"

(a) establishing at least one category, each category associated with a measureable activity characterized by at least one parameter;

(b) "electronically collecting data from an industrial vehicle," the data corresponding to actual vehicle use and satisfying at least one parameter associated with each category; (c) "accumulating the electronically collected data according to each category"; (d) "extracting, with a battery sensor, battery information . . . to measure actual energy consumed by the industrial vehicle"; (e) "creating a battery usage history from the extracted battery information"; (f) "associating for each category, a measure of work performed by that category as a function of energy consumed in performing that work," the associating performed "by correlating the collected data accumulated into each category as a function of energy consumed in performing the measurable activity associated with that category from the battery usage history"; and (g) "providing an indication of the measure of work performed by the industrial vehicle based upon the accumulated data." Appeal Br. 21 (Claims. App). None of the limitations are recited as being performed by an apparatus, and thus can all be performed manually and/or mentally. Limitation (d) extracts information with a battery sensor, but does not specify whether a user extracts information using the sensor or whether the sensor itself extracts information. Further, although the Specification discusses a generic computing environment (*see* Spec. ¶¶ 22–25), no such computing system is claimed. Moreover, all sensors described (*see* Spec. ¶ 31) are generic to the attribute sensed and are only described as sampling characteristics. This limitation is therefore no more than the conceptual idea of monitoring battery data using generic sensors in accord with their conventional operation, devoid of any particular technological implementation for doing so.

When considered collectively and under the broadest reasonable interpretation, the limitations of claim 1 recite a method for normalizing industrial vehicle performance data by associating a measure of work as a function of energy based on collected data and presenting the measure.[3] Although there is no provided definition for normalizing, the ordinary and customary meaning of the term as used in this context is to make or reduce data to a norm or standard. *See* Merriam-Webster Online Dictionary, https://www.merriam-webster.com/dictionary/normalize, retrieved Jan. 3, 2020.

Limitation (a) of establishing a category is recited functionally without technical or technological details on how the categories are established. The Appellant directs attention to the specific types of categories, measurable activity, and parameter (*see* Appeal Br. 5, nn. 2–5), but does not direct attention to where the Specification discusses how the establishing is performed. Not seeing any such details in the Specification, we construe the establishing of categories as being some form of organizing data, a mental step. *See Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) ("[W]e have treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes"). Limitations (b), (c), and (d) of collecting, accumulating, and extracting data are steps of gathering information, an activity ordinarily done in normalizing data and an extra-

[3] We note that "[a]n abstract idea can generally be described at different levels of abstraction." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). The Board's "slight revision of its abstract idea analysis does not impact the patentability analysis." *Id.* at 1241.

solution activity. *See In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008) (en banc), *aff'd sub nom Bilski v. Kappos*, 561 U.S. 593 (2010) (characterizing data gathering steps as insignificant extra-solution activity). We note that limitation (d) of extracting data is recited functionally without any specifics on how, technologically, the sensor extracts data or is used to extract data, and the Specification provides no further detail. *See, e.g.*, Spec. ¶¶ 26, 31, 44, 52, 53, Appeal Br. 5, nn. 9–11. Limitation (e) of creating a history is recited functionally without technical or technological details on how the history is created. As support for this limitation, the Appellant directs attention to paragraphs 30 and 45 of the Specification (Appeal Br. 5, n. 12) that provide for collecting usage history from the battery monitor. As such, we construe the creating of a history as collecting data, an activity ordinarily done in normalizing data and an extra-solution activity. Limitation (f) of associating a measure of work is also recited functionally without technical or technological details on how the measure of work is associated. The Appellant directs attention to the Abstract and paragraphs 5, 37, 45, and 52 of the Specification as support for this limitation. *Id.* at 5, n. 13, 14. These portions provide no further details. As such, we construe the associating of a measure of work that is done by correlating data as a form of analysis, which is mental process or a mathematical formula.

Thus, the limitations of claim 1 recite a method for making and reducing industrial vehicle performance data to a norm of a measure of work by performing mental steps and/or mathematical formulas, and presenting the results. This is similar to the concepts found abstract in *Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1366–68 (Fed. Cir. 2019 (claim for standardizing data to be conveyed to a bedside device for

graphical display was directed to the abstract idea of "collecting, analyzing, manipulating, and displaying data"), *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1339–40 (Fed. Cir. 2017) (claim for manipulating XML documents by organizing, identifying, mapping, defining, and modifying data was directed to the abstract idea of "collecting, displaying, and manipulating data"), and *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351–54 (Fed. Cir. 2016) (claim for detecting events by receiving, detecting, analyzing, displaying, accumulating, and updating data, and deriving a composite indicator from that data was directed to the abstract idea of "collecting information, analyzing it, and displaying certain results of the collection and analysis").

For at least the reasons above, we disagree with the Appellant's contention that "the claimed invention is not analogous to *Electric Power Group*, and in fact, is opposite *Electric Power Group*." Appeal Br. 14; *see also id.* at 15. We also disagree that the claim cannot be performed in the human mind (*see id.* at 16), because, as noted above, the claim recites no structure for performing the functions of establishing a category, collecting, and accumulating, data, associating a measure of work, and providing an indication. And, although the extraction of data requires a sensor, the claim recites that data can be extracted, i.e., collected, manually using a data.

Accordingly, we conclude the claim recites a mental process including evaluations, which is one of the groupings of abstract ideas identified in the 2019 Revised Guidance, 84 Fed. Reg. at 52.

Integration into a Practical Application

Under Step 2A, Prong 2 of the 2019 Revised Guidance, 84 Fed. Reg. at 54, we look to 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, such that the claim is more than a drafting effort designed to monopolize the judicial exception," i.e., "integrates a judicial exception into a practical application." Here, the only additional elements recited in claim 1 beyond the abstract idea are a battery sensor, battery, and industrial vehicle. These elements are described generically in the Specification (*see, e.g.*, Spec. ¶¶ 26, 31, 44; Fig. 1), and are used to extract data and as the particular field in which the method is employed.

The Appellant contends that "[t]he claimed invention provides a particular (and technical) solution to a particular problem." Appeal Br. 13. The Appellant argues that the claim is like *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), because "the claimed invention is directed to the specific way of normalizing industrial vehicle data, and not merely to a result to be achieved." Appeal Br. 14; *see also id.* at 13. The Appellant also argues that "the claimed invention provides an inventive technology to carry out the invention," such as by defining a category, recording measurable activity, and using a battery sensor. *Id.* at 15. Thus, the Appellant contends, "the claimed invention focuses on a specific improvement (correlating the collected data accumulated into each category as a function of energy consumed in performing the measurable activity associated with that category from the battery usage history) on industrial vehicles." *Id.* at 19. When viewed through the lens of the 2019 Revised Guidance, the Appellant contends that under Prong Two, the elements of claim 1 integrate the abstract idea into a practical application because the combination of the elements "reflects an improvement in the functioning of a computer, or an improvement to other technology or

technical field." 84 Fed. Reg. at 55 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014)). We disagree.

In *DDR Holdings*, the Federal Circuit determined that the claims addressed the problem of retaining website visitors who, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be transported instantly away from a host's website after clicking on an advertisement and activating a hyperlink. *DDR Holdings*, 773 F.3d at 1257. The Federal Circuit, thus, held that the claims were directed to statutory subject matter because they claim a solution "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *Id.* The court cautioned that "not all claims purporting to address Internet-centric challenges are eligible for patent." *Id.* at 1258. And the court contrasted the claims to those at issue in *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014), in that, in *DDR Holdings*, the computer network was not operating in its "normal, expected manner" and the claims did not "recite an invention that is [] merely the routine or conventional use of the Internet." *Id.* at 1258–59.

Here, the Appellant contends that the problem being solved is "being able to evaluate the work performed by various industrial vehicles." Appeal Br. 13. However, being able to evaluate work performed by vehicle is not a problem necessarily rooted in computer or other technology. Rather, it is a problem rooted in "comparative analysis (cost, efficiency or both)" that is used for "fleet operation, operational efficiency, team efficiency, and industrial vehicle operation" (Spec. ¶ 19), i.e., business problems existing prior to computer technology.

Also, unlike *DDR Holdings*, here, the purported solution of normalizing data by evaluating extracted data involves the use of generic components performing in their ordinary capacities. The sensor to extract data is a generic sensor operating in its ordinary capacity to monitor data. *See, e.g.,* Spec. ¶ 26. The claim does not specify a particular method by which the data are extracted. That the claimed technique is performed in the field of industrial vehicles with batteries simply limits the use of the abstract idea to a particular technological environment. "The Supreme Court and [the Federal Circuit] have repeatedly made clear that merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claims any less abstract." *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016), citing *Alice*, 573 U.S. at 222; *Mayo*, 566 U.S. at 71; *Bilski*, 561 U.S. at 612, *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014). The Appellant does not direct our attention to, and we do not see, where the Specification describes the sensor, battery, or vehicle acting in an unconventional manner to further the desired solution of normalizing data based on a measure of work and displaying that measure. The Appellant also does not direct our attention to anything in the Specification to indicate that the invention provides a technical improvement to the sensor, battery, or vehicle.

Regarding *McRO*, the claims there were directed to a specific improvement in computer animation and used rules to automate a subjective task of humans to create a sequence of synchronized, animated characters. *See McRO*, 837 F.3d at 1314–15. Unlike *Flook*, *Bilski*, and *Alice*, it was not the use of the computer, but the incorporation of the rules that improved an

existing technological process. *Id.* at 1314. Here, there is no such improvement to technology or a technological process. The Appellant does not assert an improvement in the technical or technological aspects of establishing, collecting, accumulating, creating, associating, and providing data. Rather, any improvement lies in the analysis of the data, i.e., in the ability to evaluate work performed (*see* Appeal Br. 13). This alleged improvement lies in the abstract idea itself, not to any technological improvement. *See BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1287–88 (Fed. Cir. 2018). The Appellant also does not direct our attention to anything in the Specification to indicate that the invention provides a *technical* improvement in the analysis or display of data or that claim 1 incorporates rules to automate a subjective task of humans, similar to those in *McRO*.

Accordingly, we conclude claim 1 does not contain an element that imposes a meaningful limit on the abstract idea that integrates the abstract idea into a practical application.

Thus, we are not persuaded of error in the Examiner's determination that claim 1 is directed to an abstract idea.

Step Two of the Mayo/Alice Framework

Under the second step in the *Alice* framework (corresponding to Step 2B of the 2019 Revised Guidance), we find supported the Examiner's determination that the limitations of claim 1, taken individually and as an ordered combination, do not amount to significantly more than the judicial exception. *See* Final Act. 7–8.

The Appellant argues that the claim elements amount to significantly more than the abstract idea because, like *BASCOM Global Internet Svcs.*,

Inc. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016), "the claimed invention expressly recites non-conventional elements in a non-generic arrangement." Appeal Br. 18; *see also id.* at 19–20. However, the Appellant does not show how the claim here is similar to *BASCOM*'s "particular arrangement of elements [that] is a technical improvement over prior art ways of filtering such content." 827 F.3d at 1350. The patent at issue in *BASCOM* "claim[ed] a technology-based solution (not an abstract-idea-based solution implemented with generic technical components in a conventional way) to filter content on the Internet that overcomes existing problems with other Internet filtering systems." *Id.* at 1351. The court determined that "[b]y taking a prior art filter solution (one-size-fits-all filter at the ISP server) and making it more dynamic and efficient (providing individualized filtering at the ISP server), the claimed invention represents a 'software-based invention[ ] that improve[s] the performance of the computer system itself.'" *Id.* Here, there is no such improvement. Although the claim recites structural elements of a sensor, battery, and vehicle, as discussed above, there is no claimed technological improvement to these structures. Any improvement in the lies in the abstract idea itself, i.e., creating a usage history and correlating data to result in a measure of work based on accumulated and collected data. *See* Appeal Br. 18–19.

The Appellant also argues that "the claim[] expressly recite[s] claim elements that are not known in the art." *Id.* at 18; *see also* Reply Br. 4. To the extent the Appellant argues that the claim is significantly more than the abstract idea because there are not prior art rejections, an abstract idea does not transform into an inventive concept just because the prior art does not disclose or suggest it. *See Mayo*, 566 U.S. at 78. "Ground-breaking,

innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry." *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013). Indeed, "[t]he 'novelty' of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." *Diehr*, 450 U.S. at 188–89; *see also Mayo*, 566 U.S. at 91 (rejecting "the Government's invitation to substitute §§ 102, 103, and 112 inquiries for the better established inquiry under § 101").

The Appellant further contends "[u]nder *Berkheimer*, the Appellant's claims are clearly subject-matter eligible." Reply Br. 3. Specifically, the Appellant argues that "the Examiner has been wholly unable to find any reference or combination of references showing that battery sensors, which measure physical properties, are well-understood, routine, or conventional in the relevant industry." *Id.*

The court in *Berkheimer* held that "[t]he patent eligibility inquiry may contain underlying issues of fact." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018) (quoting *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016) ("The § 101 inquiry '***may*** contain underlying factual issues."')). But, the court also held that "[w]hen there is *no genuine issue of material fact* regarding whether the claim element or claimed combination is well-understood, routine, [and] conventional to a skilled artisan in the relevant field, this issue can be decided on summary judgment as a matter of law." *Berkheimer*, 881 F.3d at 1368 (emphasis added). This qualification has been subsequently reiterated.

> If there is a genuine dispute of material fact, Rule 56 requires that summary judgment be denied. In *Berkheimer*, there was such a genuine dispute for claims 4–7, but not for claims 1–3 and 9. . . . [I]n accordance with *Alice*, we have repeatedly recognized the absence of a genuine dispute as to eligibility for the many claims that 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, 1371–73 (Fed. Cir. 2018) (Order, On Petition for rehearing en banc, May 31, 2018) (Moore, J., concurring); *see also Aatrix Software, Inc. v. Green Shades Software, Inc*., 890 F.3d 1354, 1368 (Fed. Cir. 2018) ("A factual allegation or dispute should not automatically take the determination out of the court's hands; rather, there needs to be justification for why additional evidence must be considered—the default being a legal determination."). Here, the Specification indisputably shows the sensor was conventional at the time of filing. *See supra*, Spec. ¶¶ 31, 52. Further, the claim does not recite, and the Appellant does not argue, how the sensor extracts data such that it would be new or specific, or comprise an unconventional arrangement. *See Automated Tracking Sols., LLC v. Coca-Cola Co.*, 723 F. App'x 989, 993–95 (Fed. Cir. 2018) (claims tracking objects by collecting data from sensors did not use "conventional RFID components in a non-conventional combination or arrangement"); *cf. Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1348–49 (Fed. Cir. 2017) (claim with "unconventional utilization of inertial sensors" were not directed to an abstract idea because they sought "to protect only the application of physics to the unconventional configuration of sensors as disclosed").

Thus, we are not persuaded of error in the Examiner's determination that the limitations of claim 1 do not transform the claim into significantly more than the abstract idea. We therefore sustain the Examiner's rejection under 35 U.S.C. § 101 of claim 1.

The Appellant includes a separate heading for dependent claims 2–16, but does not provide a separate argument for the rejection of these claims. *See* Appeal Br. 20. Therefore, for the reasons given above, the rejection of claims 2–16 is also sustained.

CONCLUSION

The Examiner's decision to reject claims 1–16 is sustained.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–16	101	Eligibility	1–16	

TIME PERIOD FOR RESPONSE

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)(l)(iv).

AFFIRMED

Notice of References Cited	Application/Control No. 14/212,719	Applicant(s)/Patent Under Patent Appeal No. 2018-007167	
	Examiner	Art Unit 3624	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Merriam-Webster Online Dictionary, https://www.merriam-webster.com/dictionary/normalize, retrieved Jan. 3, 2020.
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

normalize verb

Save Word

nor·mal·ize | \ ˈnȯr-mə-ˌlīz \

normalized; **normalizing**

Definition of *normalize*

transitive verb

1 : to make conform to or reduce to a norm or standard

2 : to make normal (as by a transformation of variables)

3 : to bring or restore to a normal condition
// normalize relations between two countries

Other Words from *normalize*

Synonyms

More Example Sentences

Learn More about *normalize*

Other Words from *normalize*

normalizable \ ˈnȯr-mə-ˌlī-zə-bəl \ *adjective*

normalization \ ˌnȯr-mə-lə-ˈzā-shən \ *noun*

Synonyms for *normalize*

Synonyms

formalize, homogenize, regularize, standardize

Visit the Thesaurus for More

Examples of *normalize* in a Sentence

// The drug *normalizes* heart function.

// The talks are aimed at *normalizing* relations between the countries.

See More

Recent Examples on the Web

// Hanging out with high-school kids seems to work as a contact high for her, *normalizing* her hidden recklessness.

— Emily Nussbaum, *The New Yorker*, "Uncertain Attraction in "Work in Progress" and "Dare Me"," 16 Dec. 2019

// To do nothing and *normalize* this behavior would be a dereliction of my oath of office.

— Rick Green, *courant.com*, "Rep. Hayes says she will vote for impeachment," 12 Dec. 2019

These example sentences are selected automatically from various online news sources to reflect current usage of the word 'normalize.' Views expressed in the examples do not represent the opinion of Merriam-Webster or its editors. Send us feedback.

See More

First Known Use of *normalize*

1847, in the meaning defined at sense 1

Learn More about *normalize*

Share *normalize*

Time Traveler for *normalize*

The first known use of *normalize* was in 1847

See more words from the same year

From the Editors at Merriam-Webster

The New 'Normalize'

Is the meaning of 'normalization' changing?

Dictionary Entries near *normalize*

normal honey

normal horizontal separation

normalise

normalize

normalizer

normal minor scale

normal moisture capacity

Statistics for *normalize*

Last Updated

30 Dec 2019

Look-up Popularity

Bottom 50% of words

Cite this Entry

"Normalize." *The Merriam-Webster.com Dictionary*, Merriam-Webster Inc., https://www.merriam-webster.com/dictionary/normalize.

Accessed 3 January 2020.

Style: MLA

More Definitions for *normalize*

normalize verb

English Language Learners Definition of *normalize*

formal : to bring (someone or something) back to a usual or expected state or condition

See the full definition for *normalize* in the English Language Learners Dictionary

normalize transitive verb

nor·mal·ize

variants: *or British* **normalise** \ ˈnȯr-mə-ˌlīz \

normalized *or British* **normalised**; **normalizing** *or British* **normalising**

Medical Definition of *normalize*

: to make conform to or reduce to a norm or standard
// *normalize* blood pressure

Other Words from *normalize*

normalization *or British* **normalisation** \ ˌnȯr-mə-lə-ˈzā-shən \ *noun*

More from Merriam-Webster on *normalize*

Thesaurus: All synonyms and antonyms for *normalize*

Spanish Central: Translation of *normalize*

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What made you want to look up *normalize*? Please tell us where you read or heard it (including the quote, if possible).

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