



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/166,524	06/22/2011	Chinmaya Kar	H0027928-0103	6091
92720	7590	06/04/2018	EXAMINER	
HONEYWELL/MUNCK Patent Services 115 Tabor Road P.O. Box 377 MORRIS PLAINS, NJ 07950			KUAN, JOHN CHUNYANG	
			ART UNIT	PAPER NUMBER
			2857	
			NOTIFICATION DATE	DELIVERY MODE
			06/04/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentservices-us@honeywell.com
patents@munckwilson.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHINMAYA KAR

Appeal 2017-004856
Application 13/166,524¹
Technology Center 2800

Before KAREN M. HASTINGS, CHRISTOPHER L. OGDEN, and
MICHAEL G. McMANUS, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant requests our review under 35 U.S.C. § 134 of the Final Rejection of claims 1–5, 7–9, 11, 12, 14–16, and 18–25. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Honeywell International, Inc. is identified as the real party in interest. Appeal Br. 2.

THE INVENTION

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

1. A method comprising:

using at least one processing device:

obtaining information associated with a machine including one or more components, wherein the information comprises multiple rules associated with the one or more components, the rules associated with threshold values;

determining a baseline vibration level for the machine, wherein the baseline vibration level is an average of a plurality of baseline vibration measurements;

receiving measurements of a vibration level of the machine;

generating a ratio of the measurements against the baseline vibration level;

generating, based on the measurements, one or more feature values for one or more features associated with the one or more components;

determining a first component-related condition for a first type of failure mode of the one or more components based on the one or more feature values, one or more of the threshold values associated with at least one of the rules, and the ratio;

providing a first indicator identifying the first component-related condition;

based on the first indicator, determining a second component-related condition for a second type of failure mode of the one or more components based on the one or more feature values, one or more of the threshold values associated with at least one of the rules, and the ratio; and

providing a second indicator identifying the second component-related condition and a third indicator, based on the

first and second indicators, identifying an overall component-related condition;

wherein the at least one processing device is configured to use a common set of rules and threshold values to identify component-related conditions for different types of machines.

Appeal Br.² 29–30 (Claims Appendix).

Independent claim 1 is directed to a method of “determining a first component-related condition for a first type of failure mode” and “a second component-related condition for a second type of failure mode” similar to the apparatus of independent claim 8 and the non-transitory computer readable medium of independent claim 15 (Appeal Br. 31–34, Claims Appendix). Appellant argues claims 1, 8, and 15 as a group (Appeal Br. 12–20 & 22–27).

Dependent claim 25, reproduced below, is also illustrative of the subject matter on appeal.

25. The method of Claim 1, further comprising:

generating an audible or visual alarm based on the overall component-related condition.

Appellant argues the dependent claims as a group and does not present substantive separate arguments for any claim except claim 25 (Appeal Br. 25 & 22–27).

Accordingly, we have selected independent claim 1 and dependent claim 25 as representative.

² Citations are to the Final Rejection (“Final Action”), mailed 1/12/2016, to the Corrected Appeal Brief, filed 10/05/2016 (“Appeal Br.”) and to the Reply Br. (“Reply Br.”), filed 2/02/2017.

REJECTIONS AND REFERENCES

The Examiner maintains the following rejections on appeal:

1. Claims 1–5, 7–9, 11, 12, 14–16, and 18–25 are rejected under 35 U.S.C. § 101.
2. Claims 1–5, 7–9, 11, 12, 14–16, 18–21, and 25 are rejected under 35 U.S.C. § 103(a) over Kar et al. (U.S. Patent Publication No. 2010/0030492 A1, published Feb. 4, 2010) (“Kar”) in view of Hala et al. (U.S. Patent Publication No. 2010/0198534 A1, published Aug. 5, 2010) (“Hala”) and V. Sugumaran & K.I. Ramachandran, *Automatic Rule Learning Using Decision Tree for Fuzzy Classifier in Fault Diagnosis of Roller Bearing*, 21 Mechanical Systems and Signal Processing 2237 (2007) (“Sugumaran”).
3. Claims 22–24 are rejected under 35 U.S.C. § 103(a) over Kar in view of Hala, Sugumaran, and Lofall (U.S. Patent No. 6,484,109 B1, issued Nov. 19, 2002).

ANALYSIS

We review the appealed rejections for error based upon the issues identified by the Appellant and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential) (*cited with approval in In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections”)). After considering the evidence presented in this Appeal and each of Appellant’s arguments, we are not persuaded that Appellant identifies reversible error. Thus, we affirm

the Examiner's rejections for the reasons expressed in the Final Office Action and the Answer. We add the following primarily for emphasis.

The § 101 Rejection

Appellant argues independent claims 1, 8, and 15 as a group. Appeal Br. 12–20. We therefore limit our discussion to claim 1. Claims 8 and 15 stand or fall with that claim. 37 C.F.R. § 41.37(c)(1)(iv) (2013).

Alice Corp. Pty. v. CLS Bank International, 134 S. Ct. 2347 (2014), identifies a two-step framework for determining whether claimed subject matter is judicially-excepted from patent eligibility under § 101.

According to *Alice* step one, “[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Alice*, 134 S. Ct. at 2355. In that regard, the Examiner determined that the claims are directed to organizing measurement data according to mathematical correlations and processing information using rules, and concluded that the subject matter of the claims is directed to the judicial exception of abstract ideas. Ans. 2–3 & 6–11.

The Appellant challenges the Examiner's articulation of what the claims are directed to by arguing that the Examiner fails to analyze each claim as a whole, but the challenge is unfounded. *See* Appeal Br. 13–15, Reply Br. 4–6. For example, the fact that the claims are drafted to determining a second component-related condition for a second type of failure mode and identifying an overall component-related condition based on the first and second indicators is not dispositive. The question is what the claims are “directed to.”

[T]he “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.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); see *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1375, 2016 WL 1393573, at *5 (Fed. Cir. 2016) (inquiring into “the focus of the claimed advance over the prior art”).

Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016). “The ‘abstract idea’ step of the inquiry calls upon us to look at 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) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)). “In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.” *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

The Appellant argues that the “directed to” inquiry requires a determination of whether the claims would pre-empt or attempt to tie up an exception such that others could not practice it and that Appellant’s claims are sufficient enough in detail to avoid preemption. Appeal Br. 15–17; Reply Br. 4. However, “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). Moreover, the Examiner’s arguments support a finding of preemption by Appellant’s claims. The Examiner explains in detail that “claim 1, for instance, does not specify what ‘machine’ is being evaluated, or what sensor is collecting what ‘measurements of a vibration level’, or what ‘rules’ or ‘threshold values’ are obtained, or what ‘failure

modes’ and ‘component-related conditions’ are determined” (Ans. 9). Consequently, the claims are “applicable over a wide range of applications in a wide range of fields (vehicles, factory equipment, power generators, oil drilling equipment, etc.), so the abstract idea would tend to be widely monopolized by the claim” (*id.*). Accordingly, Appellant has not persuasively shown error in the Examiner’s determination that the claims are sufficiently broad to pre-empt application in a wide array of fields.

The Appellant further argues that the Examiner failed to properly identify an abstract idea similar to those previously raised by the courts (Appeal Br. 13–14, Reply Br. 2–3), however the Examiner finds and identifies that Appellant’s claims are directed to two abstract ideas and cites four opinions in which similar abstract ideas were identified (Ans. 2–3). Specifically, the Examiner cites the abstract ideas of “calculating parameters indicating an abnormal condition (*In re Grams*, 888 F.2d 835, 12 U.S.P.Q.2d 1824 (Fed. Cir. 1989))” and “organizing information through mathematical correlations (*Digitech Image Techs., LLC v Electronics for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014))” as being similar to the abstract idea identified by the Examiner of organizing measurement data according to mathematical calculations and cites the abstract ideas of “comparing information regarding a sample or test subject to a control or target data (*Univ. of Utah Research Found. v Ambry Genetics Corp.*, 774 F.3d 755 (Fed. Cir. 2014), *Association for Molecular Pathology v. USPTO*, 689 F.3d 1303 (Fed. Cir. 2012))” and “obtaining and comparing intangible data (*Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011))” as being similar to the abstract idea identified by the Examiner of

processing information using rules. *Id.* Appellant does not provide sufficient rationale to overcome the Examiner's arguments because the Appellant does not explain why the abstract ideas identified by the Examiner are not similar to the abstract ideas identified in the opinions cited by the Examiner.

In addition, Appellant argues that the claims are not directed to an abstract idea because the claims are dependent upon computer systems, citing "*DDR Holdings, LLC v. Hotels.com, L.P.*, No. 2013-1505, 2014 WL 6845152 (Fed. Cir. 2014) (noting that . . . the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks" (Appeal Br. 14–15), however the Examiner properly rebuts Applicant's arguments. The Examiner finds, and Appellant does not subsequently rebut, that the abstract ideas, to which Appellant's claims are directed, of performing mathematical calculations and data comparison using a decision tree predated computer technology and are not rooted in computer technology and the Internet because the claims merely disclose "using a processor to help quickly calculate and compare values according to the rules" (Ans. 7).

As set out in the Background section of Appellant's Specification, it was known to monitor the vibrations of rotating machines in order to determine the health of a machine. The claims are directed to using "a common set of rules and threshold values" to determine the condition of a component based on indicators identifying failure modes. The Specification clarifies that "[t]he component-related conditions identified by the RBDS 100 may represent any suitable conditions" and the indicators may identify

“component-related conditions in any suitable manner” by providing “numerical values such as in the range of 0–1, 0–10, or 0–100” (Spec. ¶¶ 25, 31). Accordingly, the claims as a whole, in light of the Specification, are directed to monitoring the condition of components of a machine by calculating numerical values called indicators indicative thereof, which is consistent with the Examiner’s position that the claim is directed to mathematical correlations (Final Act. 2–3).

Step two is “a search for an ‘inventive concept’—*i.e.*, 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*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)). In response to Applicant’s argument that individual elements of the independent claims comprise significantly more (Reply Br. 8), the Examiner determined that each of the individual elements of the claim are directed to one of the two abstract ideas identified by the Examiner by grouping each of the claim steps into one of the two abstract ideas (Ans. 6–7). For example, the Examiner argues, the steps of providing an indicator or determining a condition do not comprise significantly more than the abstract idea because they comprise part of the abstract idea of processing measurement information according to mathematical calculations (*id.*).

The Specification does not support Applicant’s argument that the additional elements comprise significantly more than the abstract idea of organizing measurement data according to mathematical correlations and processing information using rules. The claims employ conventional

devices (processing device, machines and “a common set of rules”) for their common functions. The Specification supports the view that said device/system are conventional. (See, e.g., Spec. ¶¶ 20, 32 (disclosing machines “represent[] any device for which a vibrational analysis may be desired” and an analyzer “includes any suitable structure for receiving and analyzing vibration signals”). See *Alice*, 134 S. Ct. at 2358 (“[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea ‘while adding the words “apply it”’ is not enough for patent eligibility.” (citation omitted))

The Appellant further argues that the claims comprise significantly more than simple calculations because they integrate the calculations “into a diagnostic process” such that when “looking at the additional limitations as an ordered combination, Claim 1 as a whole amounts to significantly more than simply ‘an algorithm or mathematical relations’” (Appeal Br. 19–20, Reply Br. 3–4), however Applicant does not persuasively argue why the additional elements of the claim (beyond calculating) are not routine or conventional. The final step of the claim even goes so far as to explicitly state it is performing generic functionality in disclosing that it uses “a common set of rules and threshold values to identify component-related conditions for different types of machines.” The claims do not disclose any application or further use for the condition and disclose that the indicators are obtained by performing a series of mathematical calculations in order to generate baseline vibration measurements, a ratio, feature values and threshold values. In addition, the Examiner concludes that the combination of steps including the additional elements directed to collecting and

processing data according to “common rules” do not comprise significantly more than the abstract idea because the ordered combination does not add meaningful limitations to the abstract idea beyond reciting functions at a high level of generality and using a general purpose computer to perform routine or conventional functionality (Final Action 3, Ans. 9). Accordingly, Appellant’s arguments that the claims comprise significantly more than the abstract idea are not persuasive.

Dependent Claims

Appellant argues dependent claim 25 separately. Appeal Br. 21, Reply Br. 9–10.

Appellant argues that the limitations of claim 25 further reciting “generating an audible or visual alarm based on the overall component-related condition” comprise significantly more than the abstract idea when combined with the limitations of claim 1, because the alarm of claim 25 is similar to the stock quote alert disclosed in Example 21 of the July 2015 Update Appendix 1 to be “used in conjunction with the *2014 Interim Guidance on Subject Mater Eligibility*” (issued July 30, 2015, available at <https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-app1.pdf>) (hereafter “July 2015 Update”). Appellant’s arguments are not persuasive. The stock quote alert in Example 21, claim 2, differs significantly from Appellant’s claims in that the claim limitations taken as a whole, when viewed as an ordered combination, “solve[] an Internet-centric problem with a claimed solution that is necessarily rooted in computer technology.” (July 2015 Update 4). In contrast to Appellant’s alarm, which merely indicates the result of an abstract calculation, the method in Example 21

addresses the “challenge of alerting a subscriber with time sensitive information when the subscriber’s computer is offline” by transmitting an alert over a wireless communication channel to activate a stock viewer application, which causes the alert to display and enables the connection of a remote subscriber computer to a data source over the Internet when the remote subscriber computer comes online. *Id.* Consequently, the limitations of claim 25 do not comprise significantly more than the abstract idea because they are routine and generic, as stated by the Examiner (Ans. 11), and are not similar to the claim limitations provided in Example 21.

In addition, the finding by the Court in *Parker v. Flook*, 437 U.S. 584 (1978), supports a conclusion that a preponderance of the evidence shows that the limitations in Appellant’s claim 25 are directed to an abstract idea and are non-statutory. Similar to Appellant’s claims, the claims and Specification in *Flook* disclosed monitoring operating conditions such as temperature, pressure and flow rates and generating an alarm when any of the operating conditions exceed a predetermined alarm limit. *Id.* at 586. The Court based its finding that the claims were non-statutory in *Flook* upon their conclusion that “Respondent’s application simply provides a new and presumably better method for calculating alarm limit values,” citing “if a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.” *Id.* at 595–96 (quoting *In re Richman*, 563 F.2d 1026, 1030 (CCPA 1977)). Therefore, the limitations of Appellant’s claim 25 are non-statutory because, like the claims in *Flook*, the limitations of claim 25 are

directed to mathematical calculations for generating an alarm based on a condition.

The remainder of Appellant's dependent claims (including claims 2–5, 7, 9, 11, 12, 16, and 18–24) are argued by Appellant as a group. Appeal Br. 21. Claims 2–5, 7, 9, 11, 12, 16, and 18–24 all stand or fall together. 37 C.F.R. § 41.37(c)(1)(iv) (2013).

Appellant charges that the Examiner's treatment of the remaining dependent claims is improper because the Examiner grouped the rejection of the dependent claims together (Appeal Br. 21, Reply Br. 9–10). However, the Examiner did inform Appellant of the rationale for the rejection of the dependent claims by providing a statement for the group of claims disclosing that

[d]ependent claims 2-5, 7, 9, 11, 12, 14, 16, and 18–25 when analyzed as a whole respectively are held to be patent ineligible under 35 U.S.C. 101 because they either extend the abstract idea or the additional recited limitations . . . fail to establish that the claims amount to significantly more than the abstract idea

and reiterating that “[t]here is no additional element in any of the dependent claims that adds a meaningful limitation to the abstract idea to make the claims significantly more than the abstract idea” (Ans. 4, 10–11). To the extent Appellant contends that the Examiner is required to provide more explanation, the law is clear that there is no such requirement. *See, e.g., In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (holding that the PTO carries its procedural burden of establishing a prima facie case when its rejection satisfies the notice requirement of 35 U.S.C. § 132). Consequently, the Examiner satisfied the burden and provided Appellant with sufficient notice

regarding the reasoning for their rejection of the elements in the dependent claims.

For the foregoing reasons, Appellant has not shown error in the Examiner's *Alice* step two determination that the claims do not include an element or combination of elements sufficient to ensure that in practice they amount to significantly more than to be upon the ineligible concept itself.

The remaining arguments have been carefully considered but are unpersuasive as to error in the rejection.

The rejection of claims 1–5, 7–9, 11, 12, 14–16, and 18–25 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is sustained.

The § 103 Rejections

Upon consideration of the evidence relied upon in this appeal and each of Appellant's contentions, we find that the preponderance of the evidence supports the Examiner's conclusion that the subject matter of Appellant's claims is unpatentable over the applied prior art. We sustain the Examiner's § 103 rejections because we are unpersuaded of error in the Examiner's determination of obviousness essentially for the reasons set out by the Examiner in the Answer.

We add the following primarily for emphasis.

It has been established that “the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007); *see also In re Fritch*, 972 F.2d 1260, 1264–

65 (Fed. Cir. 1992) (a reference stands for all of the specific teachings thereof as well as the inferences one of ordinary skill in the art would have reasonably been expected to draw therefrom).

With respect to rejection II, Appellant first argues that Kar does not teach or suggest a second type of failure mode because in Figure 3 of Kar only a single difference is compared to two different thresholds (Appeal Br. 24–25, Reply Br. 11–12), however this argument ignores the other portions of Kar which the Examiner cited for this limitation. The Examiner finds that Kar discloses selecting frequency bands for multiple failure modes of which Figure 3 only depicts one (¶¶ 39, 40 and 50 disclosing “possible failure mode(s)” and “family of frequencies related to each failure mode of the bearing”). Consequently, a preponderance of the evidence supports the Examiner’s position that Kar teaches multiple types of failure modes.

Appellant further argues that neither Kar, Hala nor Sugumaran discloses the limitations “based on the first indicator, determining a second component-related condition for a second type of failure mode” and “providing a second indicator identifying the second component-related condition and a third indicator, based on the first and second indicators, identifying an overall component-related condition,” because Kar fails to disclose “the relationship between the first and second types of failure modes as recited in the claims” and the decision tree of Sugumaran only permits moving downward along one path (Appeal Br. 24–25, Reply Br. 13–15). Appellant concludes that because following a path of the decision tree in Sugumaran would lead to determining only a “first type of failure” or a “second type of failure,” a determination of a “first type of failure” or a

“second type of failure” would only be based on a single condition. *Id.* However, Appellant’s argument narrowly interprets the “based on” portion of their limitations to require determining the conditions and identifying the overall condition based on following multiple paths of the decision tree, which neither the Specification nor the claims disclose as a requirement. In contrast, the Examiner interprets the limitation “based on” to include the determinations of which paths not to follow (i.e., in determining that a second path or failure applies, one must determine or base that determination on a determination that the first path or failure type does not apply).

As disclosed *supra*, Kar already teaches determining multiple modes (i.e. types) of failures (§ 50 disclosing failure modes such as outer race and inner race) and additionally teaches using Fuzzy logic to determine an overall health indicator (§§ 70–71). Sugumaran discloses using Fuzzy logic and a decision tree to determine the relationship between the multiple modes of failures/faults discussed in Kar by explicitly disclosing diagnosing the machine as running normal (i.e. in an overall good condition) or in one of three faulty conditions – inner race fault (IRF), outer race fault (ORF) and inner and outer race fault (IORF) (*see* Sugumaran Introduction). Therefore, the Examiner finds that the decision tree could be used to determine first whether there is a first type of failure such as IRF, and then **based upon** determining that IRF is not applicable subsequently determining whether a second or third type of failure applies (Ans. 12–13 discussing Figures 4–5).

In addition, a determination using the decision tree that the machine is running “good” would be based upon a determination that IRF, ORF and IORF do not apply (i.e. based on the other fault conditions/types). *Id.*

Figures 4 and 5 of Sugumaran clearly show that making a determination of a type of fault or “good” (overall condition good) requires processing through multiple decision nodes in the decision tree involving multiple conditions of the three types of faults. Consequently, a preponderance of the evidence supports the Examiner’s determination that the decision trees of Sugumaran properly illustrate the relationships between the fault types discussed in Kar and how any determination of fault or running “good” would require also considering or ruling out the conditions of the other faults (Final Action 11-12, Ans. 12–13). Appellant has not directed our attention to any persuasive reasoning or credible evidence to establish that the Examiner’s interpretation that the claims encompass the applied prior art combination is unreasonable. *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007) (it is well established that “the PTO must give claims their broadest reasonable construction consistent with the specification” and if the Specification does not provide a definition for claim terms, the PTO applies a broad interpretation).

Because Appellant fails to identify harmful error, we sustain the Examiner’s rejection of claims 1–5, 7–9, 11, 12, 14–16, 18–21, and 25 as unpatentable over Kar in view of Hala and Sugumaran.

With respect to the rejection of dependent claims 22–24 based on Kar in view of Hala, Sugumaran, and Lofall, Appellant relies on the same arguments as above. *See* Appeal Br. 27, Reply Br. 16. Accordingly, based on the reasons set forth above, and the Answer, we determine that the preponderance of evidence supports the Examiner’s conclusion that the

Appeal 2017-004856
Application 13/166,524

subject matter recited in claims 22 through 24 are unpatentable over the applied prior art.

DECISION

For the above reasons, the Examiner's rejection of claims 1–5, 7–9, 11, 12, 14–16, and 18–25 is affirmed.

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

AFFIRMED