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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/333,256	12/11/2008	Robert Lee Angell	END920080105US1	6005
79230	7590	01/31/2020	EXAMINER	
Law Office of Jim Boice 3839 Bee Cave Road Suite 201 West Lake Hills, TX 78746			ARAQUE JR, GERARDO	
			ART UNIT	PAPER NUMBER
			3689	
			NOTIFICATION DATE	DELIVERY MODE
			01/31/2020	ELECTRONIC

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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* ROBERT LEE ANGELL, ROBERT R. FRIEDLANDER, and  
JAMES R. KRAEMER

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Appeal 2018-005273  
Application 12/333,256  
Technology Center 3600

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Before MURRIEL E. CRAWFORD, JOSEPH A. FISCHETTI, and  
MICHAEL W. KIM, *Administrative Patent Judges*.

CRAWFORD, *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 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Appellant claims a computer implemented method, apparatus, and computer usable program code for generating general risk cohorts and identifying risk scores for general risk cohorts. (Spec. ¶ 1, Title).

Claim 1 is representative of the subject matter on appeal.

1. A computer implemented method of generating general risk scores for general risk cohorts, the computer implemented method comprising:

a processor receiving digital sensor data associated with a general risk cohort from a set of multimodal sensors, wherein the digital sensor data comprises metadata describing attributes associated with at least one member of the general risk cohort, wherein each member of the general risk cohort is a category of average objects, wherein the category is represented by a range of data describing objects belonging to the category, wherein the range of data includes data that falls within a predetermined range of multiple values, and wherein the set of multimodal sensors comprises a biometric sensor that captures data that describes an external physical attribute of said at least one member of the general risk cohort, wherein the external physical attribute is one of a group consisting of a fingerprint, a palm print, a retinal pattern, and an iris pattern described by said at least one member of the general risk cohort;

the processor generating a general risk score for the general risk cohort based on selected risk factors and the attributes associated with the at least one member of the general risk cohort, wherein the general risk score describes a probability of an event occurring based on the selected risk factors and the attributes associated with the at least one member of the general risk cohort; and

the processor, responsive to a determination that the general risk score exceeds a risk threshold, initiating a response action that modifies a non-computer device.

#### THE REJECTION

Claims 1–20 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

## ANALYSIS

### 35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1–20 under 35 U.S.C. § 101.

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, . . . then ask, “[w]hat else is there in the claims before us?” To answer that question, . . . consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. . . . [The Court] described step two of this analysis as 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 Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)) (citations omitted).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept. 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.’” *See 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.

In so doing 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 judicial exception is integrated into a practical application. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Red. 50, 50–57 (Jan. 7, 2019) (“Guidance”).

The Examiner determines that the claims are directed to risk management via observation (monitoring), specifically, receiving information about cohorts generating a risk score, and initiating a response based on analysis of the risk score (Final Act. 3). The Examiner determines that the claims are directed to initiating a response action when risk has exceeded a threshold which is related to economy and commerce, collecting and comparing known information, and generating a risk score and thus is directed to a fundamental economic practice, a method of organizing human activities and a mathematical relationship or formula. (Final Act. 4). The Examiner finds that the claimed invention does not further or improve upon the technology or technical field as merely having a general purpose device to perform steps of the abstract idea is nothing more than having the general purpose device which performs well-understood, routine, and conventional activities already known in the risk management which results in the claimed invention not amounting to being “significantly more” than the judicial exception. (Final Act. 10).

The Specification discloses that risk assessment is the determination of a quantitative or qualitative value of risk associated with a particular situation or set of circumstances. (Spec. ¶ 2). The present invention generates a risk score for general risk cohorts. (Spec. ¶ 3). A cohort is described as a group of objects and an object is a member of a cohort that

may be a person, an animal, a plant, a location or a thing (Spec. ¶ 35). Digital sensor data associated with general risk cohort is received from a set of multimodal sensors. (Spec. ¶ 3). These sensors may include any device for gathering information describing at least one member of a cohort. (Spec. ¶ 21). The Specification discloses as an example, a situation in which a merchant's store risk of loss of merchandise may increase as the number of customers in the merchant's store increases, and that risk assessment may be useful for health, safety, business, and various other industries. The invention is disclosed as being able to quickly and accurately perform risk assessment to calculate the risks associated with different situations and circumstances and may be valuable to business planning, hiring employees, health, safety, future purchases, and various industries. (Spec. ¶ 2). As such the present invention, as disclosed, is a computer implemented method, apparatus and computer program product for generating general risk scores for general risk cohorts. As such, the Specification supports the Examiner's determination that the claimed invention is directed to risk management via observation (monitoring), specifically, receiving information about cohorts and generating a risk score.

Consistent with this disclosure, claim 1 recites a processor "receiving digital sensor data associated with a general risk cohort from a set of multimodal sensors," and "generating a general risk score for the general risk cohort based on selected risk factors."

We thus agree with the Examiner's determination that the claims overall concern risk management via observation (monitoring). Such risk management, as disclosed by the Specification may be used to access a merchant's risk of loss of merchandise or a risk associated with a male

teenage driver or the crime risk in an area (Spec. ¶¶ 2, 17, 19). Mitigating risk is fundamental economic practice which is a certain method of organizing human activity and therefore is a judicial exception. Guidance, 84 Fed. Reg. 52.

Also, we find the steps of “receiving . . . digital sensor data comprises metadata describing attributes associated with at least one member of the general risk cohort,” “generating a general risk score. . . based on selected risk factors and the attributes associated with the at least one member . . . wherein the general risk score describes a probability of an event occurring” constitute “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016); *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (claims directed to certain arrangements involving contractual relations are directed to abstract ideas). As such, we agree with the Examiner that the claims also concern collecting and comparing information via a mental process.

Thus, we determine that claim 1 recites a judicial exception of a certain method of organizing human activity and in the alternative, a mental process.

Turning to the second prong of the “directed to test,” claim 1 requires a “processor,” a “biometric sensor,” and a “non-computer device.” These recitations do not 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. 54. We find no indication in the Specification, nor does Appellant directs us to any indication, that the

operations recited in independent claim 1 invoke any 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.”).

We also find no indication in the Specification that the claimed invention effects a transformation or reduction of a particular article to a different state or thing. Nor do we find anything of record, short of attorney argument, that attributes any improvement in computer technology and/or functionality to the claimed invention or that otherwise indicates that the claimed invention integrates the abstract idea into a “practical application,” as that phrase is used in the revised Guidance. *See* Guidance, 84 Fed. Reg. at 55.

In this regard, the recitations do not affect an improvement in the functioning of the processor, the biometric sensor, or any non-computer device or other technology, does not recite a particular machine or manufacture that is integral to the claims, and does not transform or reduce a particular article to a different state or thing. Guidance, 84 Fed. Reg. at 55. Thus, claim 1 is directed to a judicial exception that is not integrated into a practical application and thus is an “abstract idea.”

Turning to the second step of the *Alice* analysis, because we find that claim 1 is directed to abstract ideas, the claims must include an “inventive concept” in order to be patent-eligible, i.e., there must be an element or

combination of elements that is 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. 66, 72–73).

The introduction of a processor into claim 1 does not alter the analysis at *Alice* step two.

[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. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implemen[t]” an abstract idea “on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional featur[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

*Alice*, 573 U.S. at 223–24 (alterations in original) (citations omitted).

Instead, “the 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 processor at each step of the process is purely conventional.

Using a processor 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 functions are well-understood, routine, conventional activities previously

known to the trading industry. *See Elec. Power Grp.*, 830 F.3d at 1354; *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. As to the data operated upon, “even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *SAP Am. Inc. v. InvestPic, LLC*, 890 F.3d 1016, 1022 (Fed. Cir. 2018).

The Specification discloses that the biometric sensor may be any device that gathers biometric data such as data describing a physiological state, physical attribute, or measurement of a physiological condition. The data may include fingerprints, thumbprints, palm prints, footprints, heart rate, retinal patterns, pupil dilation, blood pressure etc. The sensors may include generic fingerprint scanners, palm scanners, thumb print scanners, iris scanners, wireless blood pressure monitors, heart monitors, thermometers etc. (Spec. 13–14). The claimed biosensors operate as a conventional sensor to gather data such as fingerprints, retinal patterns etc. and thus constitutes insignificant data gathering and transmission. *See Ultramercial, LLC v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014) and *WildTangent Inc. v. Ultramercial, LLC*, 566 U.S. 1007 (2012) (vacating and remanding from writ of certiorari), finding insignificant data-gathering and use of the Internet did not amount to significantly more than the abstract

idea. As such, the biometric sensor recited in claim 1 is a generic biometric sensor and thus does not amount to significantly more than the abstract idea.

Considered as an ordered combination, the computer components and biometric sensor of Appellant's claim 1 add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis-access/display is equally generic and conventional or otherwise held to be abstract. *See Ultramercial*, 772 F.3d at 715 (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 is, therefore, ordinary and conventional.

The claims do not, for example, purport to improve the functioning of the processor or sensor. As we stated above, the claims do not affect 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. ¶¶ 15, 21, 45). In fact, the Specification specifically discloses that the processor may be a general purpose computer. (Spec. ¶ 15). Thus, claim 1 amounts to nothing significantly more than instructions to apply the abstract idea of information access using some unspecified, generic computer and some unspecified conventional sensor.

Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 226.

In regard to the recitation of “initiating a response action that modifies a non-computer device,” the Specification discloses that the response action is a specified action to either reduce the risk score or increase the risk score. An example given in the Specification relates to when a risk score indicates that there is increased crime rate. In this situation, the response action may be to (1) recommend increasing lighting in the area, (2) activate additional street lights in the area, (3) display crime watch messages on monitors and electronic billboards in the area and (4) send an electronic message to business owners regarding increased risk. (Spec. ¶ 64). The only action disclosed that *may* relate to activating a non-computer *device* is the action to activate additional street lights in the area. However, there is no disclosure that the street lights are in fact non-computer devices or on how they are activated. In any case, in this particular case, the broadly claimed activation of additional street lights which focuses on the result rather than the technical details of its implementation is generic and conventional and is similar to language otherwise held to be abstract (*see Ultramercial*, 772 F.3d at 715 (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction)). We thus conclude the claims do not provide an inventive concept because the additional elements recited in the claims do not provide significantly more than the recited judicial exception.

We have reviewed all the arguments (Appeal Br. 12–13, 17); Reply Br. 4–10) Appellant has submitted concerning the patent eligibility of the claims before us that stand rejected under 35 U.S.C. § 101. 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 make individual rebuttals of same.

In the briefing, Appellant refers to prior USPTO guidance regarding § 101, including, for example: *July 2015 Update on Subject Matter Eligibility*, 80 Fed. Reg. 45,429 (July 30, 2015) (“the 2015 Update”) (Appeal Br. 6). However, the 2015 Update and other prior guidance, including: (1) *2014 Interim Guidance on Patent Subject Matter Eligibility*, 79 Fed. Reg. 74,618 (December 16, 2014); (2) *May 2016 Subject Matter Eligibility Update*, 81 Fed. Reg. 27,381 (May 6, 2016); and (3) *Memorandum on Subject Matter Eligibility Decisions* dated Nov. 2, 2016 have been superseded by the 2019 Revised Guidance. *See* 2019 Revised Guidance, 84 Fed. Reg. at 52. As such, we will not address the sufficiency of the Examiner’s rejection against the cited prior guidance. Rather, our analysis will comport with the 2019 Revised Guidance as discussed below.

We are not persuaded of error on the part of the Examiner by Appellant’s argument that the invention requires the use of hardware such as biometric sensors thus making it inextricably intertwined with hardware technology, thereby making it more than a mere human activity. (Appeal Br. 8). The biometric sensors were not determined to be part of the abstract idea of mitigating risks or human activity, but were considered elements in addition to the recited abstract idea. As we discussed above, the claimed biometric sensors operate like conventional sensors to gather data such as fingerprints, retinal patterns etc. and thus the actions of the biometric sensors constitutes insignificant data gathering and this recitation is not significantly more than the abstract idea.

We are not persuaded of error on the part of the Examiner by Appellant's argument that the claimed features are not well-known, are not routine, and are not conventional because the present invention was found to be novel based on all section 103 rejections. We also are not persuaded that because the present invention provides a novel solution to the problem of when and how to modify a non-computer device claim 1 recites statutory subject matter. (Reply Br. 7). We initially note that the Appellant does not explain what features are referred to or why or how these features are not well-known, routine, and conventional. To the extent Appellant maintains that the limitations of claim 1 necessarily amount to "significantly more" than an abstract idea because the claimed apparatus is allegedly patentable over the prior art, Appellant misapprehends the controlling precedent. Although the second step in the *Alice/Mayo* 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. A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 90.

We are not persuaded of error on the part of the Examiner by Appellant's argument that the present invention entails an unconventional technological solution of modifying a non-computer device based on a general risk score. Specifically, Appellant argues that the non-computer device (e.g., a streetlight) needs to be turned off and on based on factors other than darkness. (Appeal Br. 9). As noted above, the claims recite no technological implementation details. At that level of generality, the claims

do no more than describe a desired function or outcome, without providing any limiting detail that confines the claim to a particular solution to an identified problem. The purely functional nature of the claim confirms that it is directed to an abstract idea, not to a concrete embodiment of that idea. *See, e.g., Affinity Labs of Tex., LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1269 (2016).

Appellant argues that the claims are rooted in technology and solve the problem of properly controlling physical devices according to a need for such physical devices. Specifically, the present invention utilizes sensor data to create a risk score, which is then used to cause the non-computer device to be modified, thereby improving the usefulness/features of the non-computer device. (Reply Br. 4). According to Appellant, the invention provides a computer specific problem by controlling how a processor modifies a non-computer device by using risk scores. This argument is not persuasive because it is not commensurate with the recitations in claim 1. Claim 1 does not recite that the risk score is used to cause the non-computer device to be modified. Rather, claim 1 recites initiating a response action that modifies a non-computer device responsive to the determination that the general risk score exceeds a risk threshold. Such a recitation is broad enough to cover a human being modifying a non-computer device when the risk score threshold is exceeded. There is no improvement to the non-computer device or the processor recited or disclosed.

We do not agree with Appellant that the claimed invention solves problems of intelligently controlling non-computer devices and therefore arises in the realm of hardware analogous to the claims in *DDR Holdings*. Reply Br. 4–5. In *DDR Holdings*, the Court evaluated the eligibility of

claims “address[ing] the problem of retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host’s website after ‘clicking’ on an advertisement and activating a hyperlink.” *DDR Holdings*, 773 F.3d at 1257. There, the Court found that the claims were patent eligible because they transformed the manner in which a hyperlink typically functions to resolve a problem that had no “pre-Internet analog.” *Id.* at 1258. The Court cautioned, however, “that not all claims purporting to address Internet-centric challenges are eligible for patent.” *Id.* For example, in *DDR Holdings* the Court distinguished the patent-eligible claims at issue from claims found patent-ineligible in *Ultramercial*. *See id.* at 1258–59 (citing *Ultramercial*, 772 F.3d at 715–16). As noted there, the *Ultramercial* claims were “directed to a specific method of advertising and content distribution that was previously unknown and never employed on the Internet before.” *Id.* at 1258 (quoting *Ultramercial*, 772 F.3d at 715–16). Nevertheless, those claims were patent ineligible because they “merely recite[d] the abstract idea of ‘offering media content in exchange for viewing an advertisement,’ along with ‘routine additional steps such as updating an activity log, requiring a request from the consumer to view the ad, restrictions on public access, and use of the Internet.’” *Id.*

Appellant’s asserted claims are analogous to claims found ineligible in *Ultramercial* and distinct from claims found eligible in *DDR Holdings*. The ineligible claims in *Ultramercial* recited “providing [a] media product for sale at an Internet website;” “restricting general public access to said media product;” “receiving from the consumer a request to view [a]

sponsor message;” and “if the sponsor message is an interactive message, presenting at least one query to the consumer and allowing said consumer access to said media product after receiving a response to said at least one query.” *Ultramerical*, 772 F.3d at 712. Similarly, Appellant’s claim 1 recites receiving, analyzing, modifying, and transmitting sensor data. This is precisely the type of Internet activity found ineligible in *Ultramerical*.

We also note that claim 1 does not recite a method of intelligently controlling a non-computer device because claim 1 does not recite how such non-computer device is controlled. All that claim 1 recites is that the processor initiates some sort of “response action that modifies a non-computer device.” Nothing is disclosed or recited on how this is done or in fact what is done. As noted by the Examiner, claim 1 is broad enough to cover a method in which the processor simply indicates that the threshold has been exceeded and a person modifies a non-computer device. In this scenario, there is no hardware linkage between the processor and the response action and there is no improvement to the non-computer device. To be clear, claim 1 does not positively recite that the processor itself modifies the non-computer device only that it initiates the modification in some way.

We are likewise not persuaded of error on the part of the Examiner by Appellant’s argument that the present invention is similar to the claims in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) and performs a function not previously performed by a computer (Reply Br. 5). As we stated above, claim 1 recites that the processor initiates a response action not that the processor performs the response action. In addition, we also agree with the Examiner that the process of turning on

something because of a trigger is notoriously well-understood, routine, and conventional. (Ans. 8).

Appellant also argues that just like the claims in *Diamond v. Diehr*, 450 U.S. 175 (1981) that improved the operation of a device, the present invention improves the operation of a device. First, as we discussed above, no improvement of the non-computer device is recited or disclosed. Second, the claims in *Diehr* were directed to a process for curing synthetic rubber, and recited a series of steps (e.g., installing rubber in a press, closing the mold, constantly determining the temperature of the mold, constantly recalculating the appropriate cure time through the use of the Arrhenius equation and a digital computer, and automatically opening the press at the proper time) that together provided a significant and practical application of the well-known Arrhenius equation and transformed uncured synthetic rubber into a new state or thing. *See id.* at 184–87. The Court determined that although the invention employed a well-known equation, it used that equation in a process designed to solve a technological problem in conventional industry practice. *Alice*, 573 U.S. at 223 (citing *Diehr*, 450 U.S. at 177). The claims in *Diehr* were, thus, patent-eligible because they improved an existing technological process. *Id.*

The Appellant contends that the claims here improve the process of controlling when devices are to be modified, activated, or turned on (Reply Br. 8). However, merely taking a manual, mental, or computer-implemented action is not transforming the data from one form to another, such as a molded product. In contrast to the situation in *Diehr*, modifying a non-computer device does not result in any analogous transformation of matter from one state (i.e., raw rubber) to another (i.e., a molded product). In

addition, the claim does not provide details on any technological processes for initiating a response action that modifies a non-computer device such that a technological process is changed or improved. Rather, any change or improvement lies in the abstract idea i.e., the idea of when the device should be modified.

In view of the foregoing, we will sustain the Examiner's rejection of claim 1. We will also sustain the Examiner's rejection of claims 2–10 because Appellant has not argued the separate eligibility of these claims.

In regard to claim 11, we do not agree with Appellant that the claimed invention is clearly “deeply rooted in the technology.” (Appeal Br. 12). Specifically, Appellant argues that the claimed invention makes a better street light that turns on based on the risk score and makes an electronic billboard better by displaying crime watch messages. According to Appellant the present invention addresses the issue of when to turn on a street light, display a crime watch message on an electronic billboard and thus improves the technology of street lights and electronic billboards by making them address the problems that they are designed to solve. This argument is not persuasive because, as we discussed above, in regard to claim 1, no improvement to the technology of non-computer devices like street lights or billboards is recited or disclosed.

We also do not agree with the Appellant that claim 11 recites significantly more than an abstract idea because claim 11 recites multimodal sensors which are machines and therefore claim 11 is analogous to the claims in *SiRF Technology, Inc. v. International Trade Commission*, 601 F.3d 1319 (Fed. Cir. 2010). (Appeal Br. 14). The persuasive value of *SiRF Technology* is limited. The claims at issue in *SiRF Technology* were

determined to be patent-eligible using the (now superseded) machine-or-transformation test. *See SiRF Tech.*, 601 F.3d at 1331–32. In any case, as stated above in our discussion of claim 1, the multimodal sensors are generic sensors that are not found to be significantly more than the abstract idea of risk management.

We do not agree with Appellant that the claims recite an unconventional technological solution of activating additional street lights based on a general risk core and are analogous to the claims in *Amdocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016). However, unlike Appellant’s claim 11, the claim at issue in *Amdocs* had a technology focus--it “entail[ed] an unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases).” *Id.* at 1300 (determining the claim term “to enhance” was a specific technological limitation, construed as meaning “to apply a number of field enhancements in a distributed fashion”). From a technological perspective, whereas Appellant’s claim 11 recites “computer program product” “multimodal sensors” and “street lights” where the computer program analyzes sensor data and issues an instruction to execute a response action by unknown means, the *Amdocs* claims were “tied to a specific structure of various components (network devices, gatherers, ISMs, a central event manager, a central database, a user interface server, and terminals or clients)” such that the components were “purposefully arrange[d] . . . in a distributed architecture to achieve a technological solution to a technological problem specific to computer networks.” *Amdocs*, 1841 F.3d at 1300. Claim 11, on the other hand, uses generic technology components simply to process data

and issue an instruction to execute a response action by some unspecified means.

In view of the foregoing, we will sustain the Examiner's rejection of claim 11. We will also sustain the rejection as it is directed to claims 12–15 because the Appellant has not argued the separate eligibility of these claims.

Appellant makes similar arguments regarding the eligibility of independent claims 16 and 20 as were made in regard to claims 1 and 11. We do not find these arguments persuasive of error on the part of the Examiner for the same reasons discussed above. As such, we will sustain the rejection of these claims. We will also sustain the rejection of claims 17, 18, and 19 because the Appellant has not argued the separate eligibility of these claims.

#### CONCLUSIONS OF LAW

We conclude the Examiner did not err in rejecting claims 1–20 under 35 U.S.C. § 101.

#### DECISION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1–20	101	Eligibility	1–20	

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