



# 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.
13/957,947	08/02/2013	Chandran Kymal	OEM0111PUS	6402
22045	7590	09/18/2020	EXAMINER	
Brooks Kushman 1000 Town Center 22nd Floor Southfield, MI 48075			NEAL, ALLISON MICHELLE	
			ART UNIT	PAPER NUMBER
			3683	
			NOTIFICATION DATE	DELIVERY MODE
			09/18/2020	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):

docketing@brookskushman.com  
kdilucia@brookskushman.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* CHANDRAN KYMAL and GREGORY FRANCIS GRUSKA

---

Appeal 2020-001657  
Application 13/957,947  
Technology Center 3600

---

Before HUBERT C. LORIN, MICHAEL C. ASTORINO, and  
NINA L. MEDLOCK, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner's Final decision to reject claims 1, 2, 10, 11, and 16.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

---

<sup>1</sup> We use the word Appellant to refer to "applicant" as defined in 37 C.F.R. § 1.42(a). Appellant identifies Omnex Systems LLC, as the real party in interest. Appeal Br. 1.

### CLAIMED SUBJECT MATTER

The claimed subject matter relates “generally relates to methods and systems for knowledge management throughout the entire life cycle of a product for use in product and process optimization, problem solving, and the development of other products and services” (Spec. para. 1). Claim 16, reproduced below with emphasis added, is illustrative of the claimed subject matter:

16. A method comprising:

*initiating a problem solver analysis tool responsive to a product failure input with respect to a manufactured product;*

*populating the problem solver analysis tool with information from a first risk prevention document having a defined association with the manufactured product;*

*determining a root-cause of the product failure using the problem solver analysis tool;*

*determining a corrective action to correct the root-cause of the product failure using the problem solver analysis tool;*

*populating the first risk prevention document, related to a product for which the product problem was defined, with the determined root-cause and corrective action based on a defined association between the first risk prevention document and the problem solver analysis tool; and*

*updating a sequence of predefined tasks to manufacture the product and a process design verification plan and report for the product to reflect the corrective action based on the populated first risk prevention document, responsive to populating the first risk prevention document; and*

*populating a second risk prevention document, designated to a product or process having a defined parent or child relationship with the product for which the product problem was defined, with the determined root-cause and corrective action.*

## REJECTION

Claims 1, 2, 10, 11, and 16 are rejected under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

## OPINION

The Appellant argues the claims as a group. *See* Appeal Br. 6–10. We select claim 16 as the representative claim for this group, and the remaining claims 1, 2, 10, 11, stand or fall with claim 16. *See* 37 C.F.R. § 41.37(c)(1)(iv).

### *Introduction*

35 U.S.C. § 101 provides that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor.”

In that regard, claim 16 covers a “process” and is thus statutory subject matter for which a patent may be obtained.<sup>2</sup> This is not in dispute.

However, the 35 U.S.C. § 101 provision “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

---

<sup>2</sup> This corresponds to Step 1 of the 2019 Revised 101 Guidance which requires determining whether “the claim is to a statutory category.” 84 Fed. Reg. at 53. *See also id.* at 53–54 (“consider[] whether the claimed subject matter falls within the four statutory categories of patentable subject matter identified by 35 U.S.C. 101.”).

In that regard, notwithstanding claim 16 covers statutory subject matter, the Examiner has raised a question of patent eligibility on the ground that claim 16 is directed to an abstract idea.

*Alice* identifies a two-step framework for determining whether claimed subject matter is directed to an abstract idea. *Alice*, 573 U.S. at 217. *Alice step one — the “directed to” inquiry*

According to *Alice* step one, “[w]e must first determine whether the claims at issue are *directed to* a patent-ineligible concept.” *Alice*, 573 U.S. at 218 (emphasis added).

The Examiner determined that claim 16 is directed to “managing knowledge throughout the entire life cycle of a product.” Final Act. 8.

Appellant contends that the claimed subject matter provides an improved technical solution which, *inter alia*, “improves overall resource utilization.” Reply Br. 2.

Accordingly, a dispute over whether claim 16 is directed to an abstract idea is present. Specifically, is claim 16 directed to “managing knowledge throughout the entire life cycle of a product” (Final Act. 8) or an improved technical solution?

*Claim Construction*<sup>3</sup>

We consider the claim as a whole giving it the broadest reasonable construction as one of ordinary skill in the art would have interpreted it in light of the Specification at the time of filing.<sup>4,5,6</sup>

Claim 16 recites 7 steps: the first four involve using a “problem solver analysis tool”; the fifth populates a “first risk prevention document” based on information determined by the “problem solver analysis tool” (i.e., “a root-cause of [a] product failure” for a product and “a corrective action to correct the root-cause of the product failure”); the sixth updates a “sequence of predefined tasks to manufacture the product and a process design verification plan and report for the product to reflect” the populated “first risk prevention document”; and, the seventh populates a “second risk

---

<sup>3</sup> “[T]he important inquiry for a 35 U.S.C. § 101 analysis is to look to the claim.” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013). “In *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1273 (Fed. Cir. 2012), the court observed that ‘claim construction is not an inviolable prerequisite to a validity determination under § 101.’ However, the threshold of § 101 must be crossed; an event often dependent on the scope and meaning of the claims.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347–48 (Fed. Cir. 2015).

<sup>4</sup> “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).

<sup>5</sup> “First, it is always important to look at the actual language of the claims. . . . Second, in considering the roles played by individual limitations, it is important to read the claims ‘in light of the specification.’” *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1378 (Fed. Cir. 2017) (J. Linn, dissenting in part and concurring in part) (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016)), among others.

<sup>6</sup> See 2019 Revised 101 Guidance, 84 Fed. Reg. at 52 n.14 (“If a claim, under its broadest reasonable interpretation.”).

prevention document” for a “product or process having a defined parent or child relationship with the product”.

As reasonably broadly construed, claim 16 provides for a scheme for determining a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect its manufacture and that of a related second product.

Notably, the first four steps are tied to a “problem solver analysis tool” but the last three steps are not tied to any device. The claim leaves open the type of device one can employ to practice the last three – “populating” a “first risk prevention document,” “updating” tasks, and “populating” a “second risk prevention document”. Accordingly, these steps are reasonably broadly construed as covering, at best, the use of generic computer functions. At the very least, these can be performed by hand.

As for the limitation “problem solver analysis tool,” it appears to cover generic problem solving methodologies. This appears to be so because the Specification states that “[t]he one or more problem solving analysis tools may include, but it is not limited to, a global eight discipline (8D) analysis, A3, 5 Why, team oriented problem solving, five phase analysis, corrective and preventive action, and/or rapid problem resolution.” Spec., para. 45 (emphasis added), which are *well-known problem-solving methodologies*. See also *id.* at para. 3 (“An eight discipline (8D) problem solving method is an example of a structured approach to resolve problems even those that may have an ill-defined solution path.”)

Thus, the first four steps involving a “problem solver analysis tool” are not strictly-speaking tied to any particular device but to a generic problem-solving methodology instead. Accordingly, the first four steps are

also reasonably broadly construed as covering, at best, the use of generic computer functions. At the very least, these could be performed by hand (e.g., through the use of “spreadsheets” (Spec., para. 21)).

As for the method claimed as a whole, it, too, is not couched in computer-enabling terms. Be that as it may, the Specification makes clear that a “system architecture” employing generic devices may be used to practice the claimed method. *See* Spec., para 26.

Putting it together, the claimed method is reasonably broadly construed as a scheme for determining a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect its manufacture and that of a related second product using, at best, generic devices.

According to the Specification, the invention provides for, *inter alia*, a “knowledge system [that] may continually collect data and transmit problem solving analysis results to risk prevention documents to ensure quality of the current product and future products.” Spec., para. 63.

Given the method as claimed as reasonably broadly construed above and in light of the Specification’s description of an objective of the invention to continually collect data and transmit problem solving analysis results to risk prevention documents to ensure quality of the current product and future products, we reasonably broadly construe claim 16 as being directed to a scheme for determining a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect its manufacture and that of a related second product. Put more succinctly, claim 16 is directed to a problem-solving scheme.

*The Abstract Idea*<sup>7</sup>

Above, where we reproduce claim 16, we identify in italics the limitations we believe recite an abstract idea.<sup>8</sup> Based on our claim construction analysis (above), we determine that the identified limitations describe a scheme for determining a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect its manufacture and that of a related second product. Problem solving in the field of product manufacture is a fundamental economic practice. It falls within the enumerated “[c]ertain methods of organizing human activity” grouping of abstract ideas set forth in the 2019 Revised 101 Guidance.<sup>9</sup> 2019 Revised 101 Guidance, 84 Fed. Reg. at 52.

---

<sup>7</sup> This corresponds to Step 2A of the 2019 Revised 101 Guidance. Step 2A determines “whether a claim is ‘directed to’ a judicial exception,” such as an abstract idea. Step 2A is two prong inquiry.

<sup>8</sup> This corresponds to Prong One (a) of Step 2A of the 2019 Revised 101 Guidance. “To determine whether a claim recites an abstract idea in Prong One, examiners are now to: (a) Identify the specific limitation(s) in the claim under examination (individually or in combination) that the examiner believes recites an abstract idea.” 84 Fed. Reg. at 54.

<sup>9</sup> This corresponds to Prong One [“Evaluate Whether the Claim Recites a Judicial Exception”] (b) of Step 2A of the 2019 Revised 101 Guidance. “To determine whether a claim recites an abstract idea in Prong One, examiners are now to: . . . (b) determine whether the identified limitation(s) falls within the subject matter groupings of abstract ideas enumerated in Section 1 of the [2019 Revised 101 Guidance].” 84 Fed. Reg. at 54. This case implicates subject matter grouping “(b):” “(b) Certain methods of organizing human activity—fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions).” *Id.* at 52.

*Technical Improvement*<sup>10</sup> (*Appellant's Argument*)

Our characterization of what the claim is directed to is similar to that of the Examiner's ("managing knowledge throughout the entire life cycle of a product."). The Examiner's characterization is described at a somewhat higher level of abstraction. Nevertheless, "[a]n abstract idea can generally be described at different levels of abstraction." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240, 1240–41 (Fed. Cir. 2016) ("The Board's slight revision of its abstract idea analysis does not impact the patentability analysis.").

We have reviewed the record and are unpersuaded as to error in our or the Examiner's characterization of what claim 16 is directed to.

Appellant points to various alleged improvements. For example, on page 6 of the Appeal Brief, Appellant argues:

In the instant claims, the system improves the maintaining and updating of risk prevention analysis documents associated with two disparate manufactured products, by automatically updating an risk prevention analysis document associate with a second

---

<sup>10</sup> This corresponds to Prong Two ["If the Claim Recites a Judicial Exception, Evaluate Whether the Judicial Exception Is Integrated Into a Practical Application"] of Step 2A of the 2019 Revised 101 Guidance. "A claim that integrates a judicial exception into a practical application will apply, rely on, or use 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." 84 Fed. Reg. at 54. One consideration, implicated here, that is "indicative that an additional element (or combination of elements) may have integrated the exception into a practical application" is if "[a]n additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field." *Id.* at 55.

product, that has a defined parent or child relationship with a first product for which risk prevention analysis was performed. Thus, it only updates a specific document under specific circumstances, . . . . The improvements reflected in the claims are multi-fold, the claims serve to limit network traffic utilized by the computer in updating documents, by constraining when updates occur, the claims avoid the time required to manually determine, and then update, any related product document related to family members of the product for which FMEA [“failure mode and effect analysis”] analysis was performed, and the claims ensure that family member documents of the analyzed product are accurately and completely updated with the most up-to-date information, which adds a degree of utility to the analysis for a given product (applying it also to all family members) and prevents failures to update documents as well as need for duplicative analysis on a family member when that problem was already analyzed and solved for another family member.

*See also* Reply Br. 4 (“There can literally be thousands, or hundreds of thousands, of pages of documentation saved with respect to highly complex processes for manufacturing highly complex products, which all share complicated interrelationships and associations. By using the technical solution of mapping defined root causes and corrective actions to those products or processes sharing the defined relationships, the entire technical system is made better . . .”).

The principal difficulty with such arguments are that they are not commensurate in scope with what is claimed. For example, for the “claims [to] serve to limit network traffic utilized by the computer in updating documents” as Appellant contends, the claims must at least mention a computer and a network. Claim 16, for example, does not. The same holds true for Appellant’s contentions that the claims deal with “two *disparate* manufactured products,” “*automatically* updating a[ ] risk prevention

analysis document associate[d] with a second product,” and “*highly complex* processes for manufacturing *highly complex* products,” among other contentions.

Another difficulty is that we do not find that the claim adequately reflects an improved *technical* solution to the problem of, *inter alia*, “ensur[ing] that family member documents of the analyzed product are accurately and completely updated with the most up-to-date information.” App. Br. 6.

The method as claimed describes, in very general terms, providing (via “initiating,” “populating,” “determining,” “determining,” “populating,” “updating,” and “populating” steps) a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect the product’s manufacture and that of a related second product. The method as claimed is not focused on improving technology. *Cf. Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1378, 1384 (Fed. Cir. 2019) (“The claims are focused on providing information to traders in a way that helps them process information more quickly, ’556 patent at 2:26–39, not on improving computers or technology.”).

We have carefully reviewed the claim. Per our previous claim construction analysis, claim 16 is reasonably broadly construed as covering a scheme for determining a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect its manufacture and that of a related second product. We see no specific asserted improvement in, for example, computer capabilities recited in the claim. Rather than being directed to any specific asserted improvement in technology, the claim supports the opposite view — that the claimed subject

matter is directed to a scheme for determining a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect its manufacture and that of a related second product using, at best, generic devices. *See Spec.*, e.g., para. 26.

The claim provides no additional structural details that would distinguish any device required to be employed to practice the method as claimed, that is, the recited “problem solver analysis tool,” from generic counterparts.<sup>11</sup>

With respect to the “initiating,” “populating,” “determining,” “determining,” “populating,” “updating,” and “populating” steps, the Specification attributes no special meaning to any of these operations, individually or in the combination, as claimed. In our view, albeit the claim does not specifically require a computer, these are common computer processing functions that one of ordinary skill in the art at the time of the invention would have known generic computers were capable of performing and would have associated with generic computers. *Cf. OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015)

Beyond the abstract idea of offer-based price optimization, the claims merely recite “well-understood, routine conventional activit[ies],” either by requiring conventional computer activities or routine data-gathering steps. *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 S. Ct. at 1294) . . . . For example, claim 1 recites “sending a first set of electronic messages over a network to devices,” the devices being “programmed to communicate,”

---

<sup>11</sup> *Cf. Move, Inc. v. Real Estate Alliance Ltd.*, 721 F. App’x 950, 954 (Fed. Cir. 2018) (non-precedential) (“Claim 1 is aspirational in nature and devoid of any implementation details or technical description that would permit us to conclude that the claim as a whole is directed to something other than the abstract idea identified by the district court.”).

storing test results in a “machine-readable medium,” and “using a computerized system . . . to automatically determine” an estimated outcome and setting a price. Just as in *Alice*, “all of these computer functions are ‘well-understood, routine, conventional activit[ies]’ previously known to the industry.” *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 S. Ct. at 1294) (alterations in original); *see also buySAFE[, Inc. v. Google, Inc.]*, 765 F.3d [1350,] 1355 [(Fed. Cir. 2014)] (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”).

We find the Appellant’s contentions that the claim presents a technical improvement unpersuasive as to error in the Examiner’s or our characterization of what the claim is directed to because the method as claimed fails to adequately support it. We are unable to point to any claim language suggestive of an improvement in technology. An argument that such an improvement exists is alone insufficient. *See generally In re Glass*, 474 F.2d 1015, 1019 (CCPA 1973); *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974); *In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984); and, *In re Schulze*, 346 F.2d 600, 602 (CCPA 1965).

Accordingly, within the meaning of the 2019 Revised 101 Guidance, we find there is no integration of the abstract idea into a practical application.

Appellant also argues that

the present claims are directed to a particular, recited methodology performed based on defined data, defined actions, with a defined result, in a defined manner to achieve the result of fault-cause and corrective-action identification and population throughout parent and child documents. **None of this is generic, none of this is abstract, and none of this is routine.**

App. Br. 9–10. According to Appellant, “[t]o understand this line of reasoning . . . one need look no further than the recent decision in *Core Wireless*.” *Id.* at. 8. We disagree that *Core Wireless* supports Appellant’s view that the “recited methodology” cannot be an abstract idea because it is “performed based on defined data, defined actions, with a defined result, in a defined manner to achieve the result of fault-cause and corrective-action identification and population throughout parent and child documents.”

*Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1359–63 (Fed. Cir. 2018) held patent eligible claims reciting an *improved user interface* for electronic devices that improved the efficiency of the electronic device, “particularly those with small screens.” *See Customedia Technologies, LLC v. Dish Network Corporation*, 951 F.3d 1359, 1364 (Fed. Cir. 2020). No such technical improvement is shown in the record before us. What the record shows is that what is claimed is a way to determine a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect a product’s manufacture and that of a related second product. What is claimed is arguably an improved way of problem solving in the field of product manufacture not “an improvement in the functioning of computers, particularly those with small screens” (*Core Wireless*, 880 F.2d at 1363).

Applicant further points out that the whole set of limitations serves to improve the field of fault management analysis by allowing for a management system that allows for cross-product, cross-component and cross-team analysis to eliminate redundant work and improve the quality of current and future products (through cross-update/population of identified root-causes and corrective actions, at least).

App. Br. 10.

The difficulty with such an argument is that it points to the recited steps (“initiating,” “populating,” “determining,” “determining,” “populating,” “updating,” and “populating”) themselves, the very subject matter that we, and the Examiner, have characterized as being an abstract idea. Rather than showing that these steps describe a technical improvement, Appellant points to result-based functional language that is without any means for achieving any purported technological improvement. The “whole set of limitations” Appellant points to – that is, determining a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect its manufacture and that of a related second product via “initiating,” “populating,” “determining,” “determining,” “populating,” “updating,” and “populating” steps – is unmoored in technical details. By so broadly defining the inventive method, that is, by setting out what it is aspiring to accomplish without any means for achieving it, let alone any purported technological improvement, the claim is in effect presenting the invention in purely result-based functional language, strengthening our determination under *Alice* step one that the claim is directed to an abstract idea. *Cf. Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) (“Claim 1 recites a method for routing information using result-based functional language. The claim requires the functional results of ‘converting,’ ‘routing,’ ‘controlling,’ ‘monitoring,’ and ‘accumulating records,’ but does not sufficiently describe how to achieve these results in a non-abstract way.”). *See also Uniloc USA v. LG Elecs. USA*, 957 F.3d 1303, 1308 (Fed. Cir. 2020):

The claims we held ineligible in *Two-Way Media* similarly failed to concretely capture any improvement in computer functionality. In *Two-Way Media*, the claims recited a method of

transmitting packets of information over a communications network comprising: converting information into streams of digital packets; routing the streams to users; controlling the routing; and monitoring the reception of packets by the users. 874 F.3d at 1334. Two-Way Media argued that the claims solved data transmission problems, including load management and bottlenecking, but the claimed method was not directed to those improvements. *Id.* at 1336–37. We therefore held the claims ineligible because they merely recited a series of abstract steps (“converting,” “routing,” “controlling,” “monitoring,” and “accumulating records”) using “result-based functional language” without the means for achieving any purported technological improvement. *Id.* at 1337.

We have considered Appellant’s other arguments challenging the Examiner’s determination under step one of the *Alice* framework and find them unpersuasive. For the foregoing reasons, the record supports the Examiner’s determination that claim 16 is directed to an abstract idea.

*Alice* step two — Does the Claim Provide an Inventive Concept?<sup>12</sup>

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*, 573 U.S. at 217–18 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)).

In that regard, the Examiner determined, *inter alia*, that

---

<sup>12</sup> This corresponds to Step 2B, of the 2019 Revised 101 Guidance, 84 Fed. Reg. at 56 “if a claim has been determined to be directed to a judicial exception under revised Step 2A, examiners should then evaluate the additional elements individually and in combination under Step 2B to determine whether they provide an inventive concept (*i.e.*, whether the additional elements amount to significantly more than the exception itself).”

the subject matter encompassed by the claims fails to amount to significantly more than the abstract idea. In addition, when taken as an ordered combination, the ordered combination adds nothing that is not already present as when the elements are taken individually. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology. Their collective functions merely provide conventional computer implementation. As evidence of routine and conventional implementation, Applicant's disclosure discloses a "web-based software system 100 may include a management method that integrates PPAP and/or APQP documents while allowing one or more analysis tools to be implemented while enabling data sharing between documents.

Final Act. 9–10. We agree.

We addressed the matter of whether the claim presented any purported specific asserted technical improvements in our analysis above under step one of the *Alice* framework. This is consistent with the case law. *See Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018) (“We have several times held claims to pass muster under *Alice* step one when sufficiently focused on such improvements.”). Such an argument, as the Appellant has made here, can also challenge a determination under step two of the *Alice* framework. *See buySAFE*, 765 F.3d at 1354–55. “[R]ecent Federal Circuit jurisprudence has indicated that eligible subject matter can often be identified either at the first or the second step of the *Alice/Mayo* [framework].” 2019 Revised 101 Guidance, 84 Fed. Reg. at 53.

Appellant’s arguments discussed above are also raised in the context of *Alice* step two. *See* App. Br. 7 (“these arguments are presented as ‘in the alternative’ arguments, and presentation of Step 2B analysis does not constitute acquiescence to Step 2A, for example”). We have addressed them, finding them unpersuasive in showing a technical improvement.

Particularly relevant here is Appellant’s argument that “all of the language describing *what* is populated, *what* data is used, *where* the data is drawn from, *what* is updated, *what* is included in the update, etc. are all instances of additional elements that must be shown to be routine, or the Step 2B analysis fails.” App. Br. 8.

In that regard, such an argument relies on the claim’s result-based functional language as the basis for contending that the claim provides an inventive concept. Rather than being based on any technical details, the argument looks to the very scheme (“initiating,” “populating,” “determining,” “determining,” “populating,” “updating,” and “populating”) to provide a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect its manufacture and that of a related second product that we have characterized as being an abstract idea. In effect, the Appellant is arguing that the abstract idea is not “routine.” But “[g]roundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.” *Ass’n for Molecular Pathology*, 569 U.S. at 591. *Cf. Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1315 (Fed. Cir. 2016).

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.” *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981) (emphasis added); *see also Mayo*, 132 S. Ct. at 1303–04 (rejecting “the Government’s invitation to substitute §§ 102, 103, and 112 inquiries for the better established inquiry under § 101”). Here, the jury’s general finding that Symantec did not prove by clear and convincing evidence that three particular prior art references do not disclose all the limitations of or render obvious the asserted claims does

not resolve the question of whether the claims embody an inventive concept at the second step of *Mayo/Alice*.

The abstract idea itself cannot amount to “‘significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 573 U.S. at 218 (quoting *Mayo*, 566 U.S. at 73), whether or not it is routine.

We are unpersuaded that claim 16 presents an element or combination of elements indicative of a specific asserted technical improvement, thereby rendering the claimed subject matter sufficient to ensure that the patent in practice amounts to significantly more than a patent upon a scheme for determining a root-cause of a product failure and a corrective action to correct the root-cause and using that information to effect its manufacture and that of a related second product.

We have reviewed the claim in light of the Specification and, as explained above, we find the claimed subject matter insufficiently expresses a technical improvement as a result of performing the functions as broadly as they are recited.

We cited the Specification in our earlier discussion. It is intrinsic evidence that the claimed “problem solver analysis tool” is conventional. In doing so, we have followed “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP Inc.*[], 881 F.3d 1360 (Fed. Cir. 2018)],” USPTO Memorandum, Robert W. Bahr, Deputy Commissioner For Patent Examination Policy, April 19, 2018 (the “*Berkheimer* Memo”).

Here, the Specification indisputably shows the recited “problem solver analysis tool” individually and in the context of the problem solving methodology as claimed was conventional at the time of filing. Accordingly,

there is sufficient factual support for the well-understood, routine, or conventional nature of the claimed “problem solver analysis tool” individually or in the combination as claimed.

No other persuasive arguments having been presented, we conclude that no error has been committed in the determination under *Alice* step two that claim 16 does not include an element or combination of elements circumscribing the patent-ineligible concept it is directed to so as to transform the concept into a patent-eligible application.

We have considered all of the Appellant’s arguments (including those made in the Reply Brief) and find them unpersuasive.

Accordingly, because we are not persuaded as to error in the determinations that representative claim 16, and claims 1, 2, 10 and 11 which stand or fall with claim 16, are directed to an abstract idea and do not present an “inventive concept,” we sustain the Examiner’s conclusion that they are directed to patent-ineligible subject matter for being judicially-excepted from 35 U.S.C. § 101. *Cf. LendingTree, LLC v. Zillow, Inc.*, 656 F. App’x 991, 997 (Fed. Cir. 2016) (“We have considered all of LendingTree’s remaining arguments and have found them unpersuasive. Accordingly, because the asserted claims of the patents in suit are directed to an abstract idea and do not present an ‘inventive concept,’ we hold that they are directed to ineligible subject matter under 35 U.S.C. § 101.”); *see, e.g., OIP Techs.*, 788 F.3d at 1364; *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016).

## CONCLUSION

The decision of the Examiner to reject claims 1, 2, 10, 11, and 16 is affirmed.

More specifically:

The rejection of claims 1, 2, 10, 11, and 16 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter is affirmed.

#### DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 2, 10, 11, 16	101	Eligibility	1, 2, 10, 11, 16	

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