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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BRUCE McKENZIE, JANE LORAND, and
BRIAN HAMLIN

Appeal 2016-006875
Application 12/890,523
Technology Center 3600

Before MAHSHID D. SAADAT, JOHN P. PINKERTON, and
JAMES W. DEJMEK, *Administrative Patent Judges*.

PINKERTON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants¹ appeal under 35 U.S.C. § 134(a) from the final rejection of claims 17–36, which constitute all of the claims pending in this application. Claims 1–16 are canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify Future Insight Maps, Inc. as the real party in interest. App. Br. 4.

STATEMENT OF THE CASE

Introduction

Appellants' disclosed and claimed invention is generally directed "to group collaboration for effective management of complex issues (both present and future) facing organizations utilizing unique systemic methods, transparency and anonymity." Spec. ¶ 3.²

Claim 17 is representative and reproduced below (with the disputed limitations *emphasized*):

17. An apparatus comprising:

means for enabling a group of participants to provide a first set of information to be considered over a network to other members in the group of participants who are on separate client machines, where the information provided by the participants is stored in one or more databases;

means for enabling the group of participants to categorize the first set of information to be considered, where categorizations contributed by the participants are also stored in the one or more databases;

means for the group of participants to contribute their thoughts based on applying two or more strategies against plausible future events, the plausible future events generated by the participants, to anticipate a diversity of future outcomes;

² Our Decision refers to the Final Office Action mailed Apr. 23, 2015 ("Final Act."); Appellants' Appeal Brief filed Oct. 23, 2015 ("App. Br.") and Reply Brief filed June 30, 2016 ("Reply Br."); the Examiner's Answer mailed May 6, 2016 ("Ans."); and the original Specification filed Sept. 24, 2010 ("Spec.").

means for enabling the group of participants to rate impact of the first set of information on a designated population;

means for enabling the group of participants to rate probability that events associated with the first set of information will occur within a given time frame;

means for mapping the first set of information with a set of criteria;

means for soliciting insights from the group of participants when applying one or more of the criteria against the first set of information;

means for enabling the group of participants to view the first set of information and their associated ratings and upon viewing the first set of information and their associated ratings to rate the diversity of future outcomes;

means for identifying observations and insights to the viewing the first set of information and their associated ratings to the diversity of future outcomes and generating a plan of action based on those observations and insights; and

means for enabling the group of participants to mitigate risk against the set of plausible future events by redesigning the strategies.

App. Br. 68–69 (Claims App’x).

*Rejections on Appeal*³

Claims 17, 21, and 29 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and

³ The Examiner originally concluded the first limitation of claim 1 would not be construed pursuant to 35 U.S.C. § 112, paragraph 6 (*see* Final Act. 2). Based on Appellants’ arguments in the Appeal Brief, however, the Examiner

distinctly claim the subject matter which the applicants regard as their invention.

Claims 17–36 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to judicially excepted subject matter—the abstract idea of risk forecasting and mitigation.

Claims 17 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heathfield (US 2009/0157465 A1; published June 18, 2009), Suresh et al. (US 2004/0153128 A1; published Aug. 5, 2004) (“Suresh”), and Wedemeyer (US 2007/0294128 A1; published Dec. 20, 2007).

Claims 19–23 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heathfield, Suresh, Wedemeyer, and Pluschkell, Jr. et al. (US 2009/0199104 A1; published Aug. 6, 2009) (“Pluschkell”).

Claims 24–28 and 30–36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heathfield, Suresh, Wedemeyer, Pluschkell, and Caplan et al. (US 2005/0096950 A1; published May 5, 2005) (“Caplan”).

ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellants’ arguments in the Briefs. For the reasons discussed *infra*, we are not persuaded by Appellants’ arguments that the Examiner erred in rejecting (1) claims 17, 21, and 29 under 35 U.S.C. § 112, second paragraph, (2) claims 17–36 under 35 U.S.C. § 101, and (3) claims 17–36 under 35 U.S.C. § 103(a). Unless otherwise indicated, we incorporate by reference

concluded the limitation would be construed pursuant to § 112, paragraph 6. Ans. 3.

herein, and adopt as our own, the findings and reasons set forth by the Examiner in the Office Action from which this appeal is taken (Final Act. 4–53) and in the Examiner’s Answer in response to Appellants’ Appeal Brief (Ans. 2–20). We also concur with the conclusions reached by the Examiner. For emphasis, we consider and highlight specific arguments as presented in the Briefs.

Rejection of Claims 17–36 under § 101

Applicable Law

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (internal quotation marks and citation omitted).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 75–77 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* For example, abstract ideas include, but are not limited to, fundamental economic practices, methods of organizing human activities, an idea of itself, and mathematical formulas or relationships. *Id.* at 2355–57. The

“directed to” inquiry asks not whether “the claims *involve* a patent-ineligible concept,” but instead whether, “considered in light of the specification, . . . ‘their character as a whole is directed to excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (internal citations omitted). In that regard, we determine whether the claims “focus on a specific means or method that improves the relevant technology” or are “directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016).

If, at the first stage of the *Alice* analysis, we conclude that the claim is not directed to a patent-ineligible concept, it is considered patent eligible under § 101 and the inquiry ends. *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 (Fed. Cir. 2016).

If the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 79, 78). In other words, the second step is to “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.’” *Id.* (brackets in original) (quoting *Mayo*, 566 U.S. at 72–73). The prohibition against patenting an abstract idea “‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or adding ‘insignificant post solution activity.’” *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (internal citation omitted).

Appellants' Arguments⁴

Appellants contend the Examiner's assessment that the claims "just recite merely information on mitigation of risks is actually wrong as well as does not meet the standards set out by the PTO and courts." App. Br. 19. According to Appellants,

By the very words of the current claim language, this is complex information that is so complex that *more than* one human mind must be used to provide inductive and deductive i) observations & ii) insights along with having structured computer scripted tools to go through an ordered process of allowing multiple ratings to be assigned to the complex information, and then all of that complex information with objective ratings must be mapped and displayed back on client machines so that the group can evaluate the potential plausible future outcomes in order to generate some sort of plan of action from the collective group of participants. The tools must allow the collective group of participants to give their ratings and insights in order to be able to form a form a plan of action and rate and assess the different aspects of this complex information or problem that needs to be solved.

Id. at 20. In this regard, Appellants further argue "the examiner merely lumps all of the claim limitations together as the concept of mitigating risks," but the proper core concept is "mitigating risks on very complex problems" using groups of people to supply insights and observations and structured tools to map and display the information for evaluation and ratings to generate a plan of action to develop strategies for potential future actions. *Id.* at 21, 23.

⁴ Appellants argue independent claims 17–36 as a group, focusing on claim 17. We consider claim 17 to be representative of the claimed subject matter on appeal and, therefore, we decide the rejection of claims 17–36 on the basis of representative claim 17. *See* 37 C.F.R. § 3641.37(c)(1)(iv)(2016).

Appellants argue the Examiner has failed to follow the Patent Office July 2015 guidelines requiring (1) a “clear articulation” of the reasons for the rejection and (2) the identification of at least one court case finding an abstract idea that is similar to the concept in the current claims. *Id.* at 23, 26. Appellants also argue the Patent Office’s “own training documents do not support the Examiner’s understanding/interpretation of how to apply a 35 USC § 101 analysis under Alice Corp.” *Id.* at 29–41. Appellants further argue the Examiner’s analysis in the Answer regarding claim 17 “is simply a single-sentence reduction and a mere conclusory statement, which does not meet the Examination guidelines.” Reply Br. 10–12.

Appellants also argue the Examiner has failed “to provide evidence to support a prima facie case under Alice Corp. to establish the current claims, considering all of the claim limitations[,] recite an Abstract idea.” App. Br. 24 (citing *PNC Bank v. Secure Access, LLC*, CBM2012-00100 (PTAB Sept. 9, 2014); *see also id.* at 22, 25).

Appellants argue the current claims are directed to patent-eligible subject matter in light of the holding in *Intellectual Ventures, LLC v. Symantec Corp.* because a human mind cannot perform all of the claimed steps to “go through a specific structured organized process of information gathering and analysis in order to intelligently generate a plan of action that mitigates the risks for plausible future events by redesigning the strategies.” *Id.* at 29; *see also id.* at 28.

Regarding claim 17, Appellants argue it uses means plus function language and “relies on a list of structural components in the Specification, which moves this claim . . . over in the category of a specific implementation of a new and useful machine under 35 USC § 101.” *Id.* at 33–34; *see also*

id. at 35–37, 41–42. According to Appellants, if *DDR Holdings* involved a technical process rather than a mere abstract idea,

then Appellants’ concept of using separate client machines coupled to a network and one or more databases to store the event and further in parallel performing activities including categorization, applying strategies, rating probability and impact of the events on specific issues, soliciting insights and observations about the effect of the events of strategies, generating a plan of action based on observation and insights, and finally redesigning the strategies to mitigate the risk of the events on the strategies is a *technical process* rather than a mere *abstract idea*.

Id. at 38–39.

Regarding step one of *Alice*, Appellants argue claim 17 recites “a technological process/machine as a core concept rather than some abstract idea, and does not need to progress to Part 2 of the Alice Corp. test.” *Id.* at 48; *see also id.* 42–47 (citing *U.S. Bancorp v. Solutran, Inc.*⁵). Appellants also argue claims 21 and 29 have similar limitations and “thus pass Part 1 of the Alice Corp. test, and do not need to progress to Part 2 of the Alice Corp.” *Id.* at 48.

Regarding step two of *Alice*, Appellants argue claims 17, 21, and 29 contain meaningful imitations that go beyond generally linking the use of an abstract idea to a particular technological environment. *Id.* at 50–52. Appellants also argue the current claims “recite improvements to the efficiency of the functioning of the computer network itself,” at least in regard to wind tunneling in which (1) hundreds of participants rate the

⁵ *U.S. Bancorp v. Solutran*, CBM2014-00076, 2014 WL 3943913 (PTAB Aug. 7, 2014).

impact and probability of events and enter observations at the same time and (2) “the strategies/criteria change rapidly and the environment changes constantly showing continuous adaptability.” *Id.* at 53 (citing Spec. ¶ 91).

Step One of Alice

The Examiner finds claim 17 is “directed to a series of steps instructing how to enable the forecasting and mitigation of risks associated with future events” and recites each limitation of claim 17. The Examiner then concludes that the steps of the claim involve:

- 1) concepts relating to the economy and commerce since the claims are directed to the mitigation of risk and evaluation of strategies (fundamental economic practice), 2) an idea standing alone such as a plan/process or mental process that can be performed in the human mind or by a human using pen and paper (an idea of itself), and 3) concepts relating to interpersonal and intrapersonal activities since the claims are directed to the group collaboration in the evaluation of strategies and risks (method of organizing human activities); therefore, the claims are directed to an abstract idea.

Ans. 3–4.

Considering the focus of claim 1 as a whole, in view of the Specification, we agree with the Examiner’s conclusion that claim 17 is directed to an abstract idea—forecasting and mitigation of risks associated with future events. As Appellants argue, the limitations of claim 17 are in “means plus function” format pursuant to § 112, paragraph 6, with each limitation reciting a particular function or step: (1) enabling a group of participants to provide a first set of information to other members of the group over a network; (2) enabling the participants to categorize the information, which categorizations are stored in databases; (3) the participants contributing their thoughts based on applying strategies against

future events, to anticipate a diversity of future outcomes; (4) enabling the participants to rate impact of the information on a designated population; (5) enabling the participants to rate probability that events associated with the information will occur in a given time frame; (6) mapping the information with a set of criteria; (7) soliciting insights from the participants when applying one or more criteria against the information; (8) enabling the participants to view the information and their ratings, and upon doing so, rating the diversity of future outcomes; (9) identifying observations and insights to the viewing of the information and the ratings of the diversity of future outcomes; and (10) enabling the participants to mitigate risk against the plausible future outcomes by redesigning the strategies.

These various functions define collecting, analyzing, mapping, rating, and further analyzing information to mitigate risk against future events. We see no meaningful difference in claim 17 and similar or analogous claims in other cases that our reviewing court has found are directed to an abstract idea. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347 (“[t]he concept of data collection, recognition, and storage is undisputedly well-known”); *Electric Power Grp, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (claims focus on the abstract idea of collecting information, analyzing it, and displaying certain results of the collection and analysis); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1327 (Fed. Cir. 2017) (affirming that the invention is drawn to the abstract idea of “creating an index and using that index to search for and retrieve data”).

We also note that the functions recited in claim 17 could be performed by a human with pen and paper. In that regard, our reviewing

court has held that “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract-idea category.” *Electric Power*, 830 F.3d at 1354; *see also Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146 (Fed. Cir. 2016). “[T]he fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.” *Bancorp Servs., LLC v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012).⁶

Further, merely combining several abstract ideas does not render the combination any less abstract. *RecogniCorp, LLC v. Nintendo Co., Ltd.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (“Adding one abstract idea . . . to another abstract idea . . . does not render the claim non-abstract.”); *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1094 (Fed. Cir. 2016) (determining the pending claims were directed to a combination of abstract ideas).

We are not persuaded by Appellants’ arguments that the Examiner erred in concluding claim 17 is directed to an abstract idea under step one of *Alice*. First, we are not persuaded by Appellants’ argument the Examiner lumped the claim limitations together and failed to look at the actual limitations. *See* App. Br. 21–23. To the contrary, we find the Examiner listed and considered all of the limitations of claim 17, as well as the limitations of claims 21 and 29, in the Answer. *See* Ans. 3–4. In addition,

⁶ *See also CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (“That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*).

we are not persuaded by Appellants' arguments that the proper core concept is mitigating risks on "very complex problems" involving complex information and a group of participants. *See* App. Br. 20–24. As the Examiner correctly finds, "complexity is not a factor in determining patentability under 35 U.S.C. § 101." Ans. 7.

Second, we are not persuaded by Appellants' arguments the Examiner erred in concluding claim 17 is directed to an abstract idea because the Examiner did not follow the Patent Office guideline and training directives. *See* App. Br. 23, 26, 29–41; Reply Br. 10–12. Guidelines governing the agency's internal practice are not binding on the Board. *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 964 (Fed. Cir. 2002) (citing *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1180 n.10 (Fed. Cir. 1995)).

Third, we are not persuaded by Appellants' argument the Examiner did not provide evidence to establish the claims recite an abstract idea. *See* App. Br. 22, 24–25. Appellants' reliance on *PNC Bank v. Secure Access, LLC*, CBM2014-00100 (PTAB Sept. 9, 2014) is not persuasive because, as the Examiner notes (*see* Ans. 8), it is not precedential and, therefore, is not controlling. Furthermore, *PNC Bank* does not stand for the proposition that Examiners must provide evidentiary support in every case before a conclusion can be made that a claim is directed to an abstract idea. Indeed, there is no such requirement. *See, e.g.*, para. IV, "JULY 2015 UPDATE: SUBJECT MATTER ELIGIBILITY" to 2014 INTERIM GUIDANCE ON PATENT SUBJECT MATTER ELIGIBILITY (2014 IEG), 79 Fed. Reg. 74618 (Dec. 16, 2014):

The courts consider the determination of whether a claim is eligible (which involves identifying whether an exception such as an abstract idea is being claimed) to be a **question of law**.

Accordingly, courts do not rely on evidence that a claimed concept is a judicial exception, and in most cases resolve the ultimate legal conclusion on eligibility **without making any factual findings**.

(Emphasis added, footnote omitted).

Patent eligibility under 35 U.S.C. § 101 is ultimately an issue of law. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d at 1338. Although the ultimate determination of eligibility is a question of law, our reviewing court recently held “[t]he patent eligibility inquiry may contain underlying issues of fact.” *Berkheimer v. HP Inc.*, No. 2017-1437, 2018 WL 774096, at *6 (Fed. Cir. Feb. 8, 2018) (quoting *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016) (“[t]he § 101 inquiry ‘may contain underlying factual issues’”)). The court in *Berkheimer* also held “[w]hen there is no genuine issue of material fact regarding whether the claim element or claimed combination is well-understood, routine, conventional to a skilled artisan in the relevant field, this issue can be decided on summary judgment as a matter of law.” *Berkheimer*, 2018 WL 774096, at *13. Thus, evidence may be helpful where, for instance, facts are in dispute, but evidence is not always necessary. Appellants have not persuaded us that evidence is necessary in this case.

Fourth, Appellants reliance on the district court’s decision in *Intellectual Ventures I LLC v. Symantec Corp.*, 100 F. Supp. 3d 371 (D. Del. 2015) is misplaced. *See* App. Br. 28–29. Appellants argue the district court found a claim of U.S. Patent 5,987,610 is patent-eligible because the claim recites a computer virus and the human mind cannot perform steps “for implementing virus screening functionality in a telephone network.” *Id.* at 29. On appeal, however, the Federal Circuit decided that all asserted claims,

including claim 7 of the '610 patent, did not satisfy § 101. *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1316, 1319–22 (Fed. Cir. 2016) (“*IVP*”). Regarding the '610 patent, the court said “[j]ust as performance of an abstract idea on the Internet is abstract, so too the performance of an abstract concept in the environment of the telephone network is abstract.” *IVI*, 838 F.3d at 1320. The court also held that claim 7 does not change the way a computer functions, but “recites no more than generic computers that use generic virus screening technology,” which “cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Id.* (citing *Alice*, 134 S. Ct. at 2358). Thus, the mere reference in Appellants’ claim 17 to providing information over a “network” does not save claim 17 from being directed to an abstract idea. Furthermore, we are not persuaded by Appellants’ argument “[that the] human mind cannot perform all of the steps described in the specification for implementing 10 different means” (*see* App. Br. 29) because, “with the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.” *See IVI*, 838 F.3d at 1318 (citing *CyberSource*, 654 F.3d at 1371–72).

Fifth, we are not persuaded by Appellants’ arguments that the use of means plus function language, and the corresponding structures described in the Specification, place claim 17 “as a whole into the patentable subject matter category of a new and useful machine under 35 USC § 101 rather than merely some abstract idea.” App. Br. 36; *see also id.* at 33–34, 35, 37, 41, 42. Appellants mention various corresponding structures shown in the drawings and described in the Specification, including network structure

200, web based anticipatory design tools 300, with various modules using interfaces, various mapping tools, and a number of application specific user interfaces. *See id.* at 34–36. However, we are not persuaded by Appellants’ arguments that any of these structures represent technological advances or improvements.

Sixth, we are not persuaded by Appellants’ argument that, if *DDR Holdings* involved a technical process, then Appellants’ concept is a technical process, rather than an abstract idea. *Id.* at 38–39. In *DDR Holdings*, the disputed claims solved an Internet-specific problem with an Internet-based solution that was “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR Holdings, LLC v. Hotels.com L.P.*, 773 F.3d 1245, 1257–58 (Fed. Cir. 2014). That is not the case here.

Similarly, we are not persuaded by Appellants’ arguments based on *U.S. Bancorp v. Soluran, Inc.* *See* App. Br. 38–49. Appellants argue that “if ‘processing paper checks via scanning said checks with a digital scanner’ and ‘comparing by a computer said digital images’ is a technical processes rather than an abstract idea, then Appellants’ concept . . . is a *technical process* rather than a *mere abstract idea*.” *Id.* at 38. Appellants do not, however, account for the distinction between claims involving the collecting, analyzing, and processing of digital information or data, such as in claim 17, and claims directed to a method of processing paper checks—a method the Board concluded is more akin to a physical process than an abstract idea. *U.S. Bancorp*, 2014 WL 3943913, at *8 (“[W]e find that the basic, core concept of independent claim 1 is a method of processing paper checks, which is more akin to a physical process than an abstract idea”). Thus, we

are not persuaded by Appellants' argument that claim 17 passes step one of *Alice* "by actually reciting a technological process/machine as a core concept rather than some abstract idea, and does not need to progress to Part 2 of the *Alice Corp. test.*" App. Br. 48; *see also id.* 49.

Step Two of Alice

Regarding step two of the *Alice* analysis, the Examiner finds the additional elements "such as the client machines, processors, memory and interfaces, in claim 17 . . . do not add a meaningful limitation to the abstract idea since these elements are being used in conventional ways." Ans. 13.

The Examiner also finds

additional elements such as the computer network and user interfaces do not yield an improvement in the functioning of the computer itself, nor do they yield improvements to a technical field or technology. At best, the generated interfaces are an improvement to the business process, which is different than an improvement to the functioning of the computer itself and does not serve to provide "significantly more" than the abstract idea. Viewed as a whole these additional elements do not provide meaningful limitations to transform the abstract idea into a patent eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself.

Id.

The Examiner further finds that the claims do not recite an improvement to the functioning of the computer network itself, but are "directed to enabling group collaboration in the evaluation of strategies and risks and merely uses computers in a network to improve the 'enabling', not the performance of the computer or network itself." *Id.* at 15. For the reasons stated by the Examiner, we agree with these findings.

We are not persuaded by Appellants’ argument that the claims go “beyond generally linking the use of an abstract idea to a particular technological environment.” App. Br. 50–52. Instead, we agree with the Examiner that the “claims only broadly apply the abstract idea to networked computers; therefore, these elements generally link the use of the abstract idea to a particular technological environment or field of use and do not provide ‘significantly more.’” Ans. 13.

We also are not persuaded by Appellants’ arguments that the claims “recite improvements to the efficiency of the functioning of the computer network itself,” at least in regard to “wind tunneling.” App. Br. 53 (citing ¶ 91). Appellants have not identified any portions of the Specification that describe the corresponding structures for performing the recited functions of claim 17 as involving technological changes or improvements. Contrary to Appellants’ argument, paragraph 91 of the Specification does not describe technological advances in any modules or structures performing “wind tunneling,” but merely describes in detail the process and operations as shown in Figure 13. Thus, we agree with the Examiner that the additional claim elements do not add a meaningful limitation to the abstract idea because these elements are being used in conventional ways. Ans. 13.

Claim 17 does not “focus on a specific means or method that improves the relevant technology,” but is “directed to a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery.” *McRO*, 837 F.3d at 1314. This is not enough to transform an abstract idea into patent-eligible subject matter. *See, e.g., Alice*, 134 S. Ct. at 2360 (explaining that claims that “amount to ‘nothing significantly more’ than an instruction to apply the abstract idea . . . using some unspecified,

generic computer” “is not ‘*enough*’ to transform an abstract idea into a patent-eligible invention” (quoting *Mayo*, 566 U.S. at 77, 79)); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d at 1342 (“[T]he claim language here provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it. Our law demands more.”). Thus, we see nothing in the limitations of claim 17, considered “both individually and as an ordered combination,” that transforms the claimed abstract idea into patent-eligible subject matter.

Accordingly, for the reasons discussed above, we sustain the Examiner’s rejection of claim 17 under § 101. For the same reasons, we sustain the rejection of independent claims 21 and 29, and dependent claims 18–20, 22–28, and 30–36, which are not separately argued, under § 101.

*Rejection of Claims 17, 21, and 29 under § 112, second paragraph*⁷

The Examiner finds claims 17, 21, and 29 are indefinite because “it is not clear from the claim language if the ‘first set of information’ and ‘criteria[,]’ and ‘events’ and ‘strategies[,]’ in the claims are the same or separate elements.” Ans. 2. Appellants argue “the criteria recited in the claims are the strategies and the set of information are the events by antecedent basis.” App. Br. 14. Appellants also argue that, based on the Specification and the claims, claim 17 “is amenable to a single plausible

⁷ Appellants argue these claims as a group, focusing on claim 17. *See* Reply Br. 5–10. We consider claim 17 to be representative and, therefore, we decide this rejection on the basis of representative claim 17. *See* 37 C.F.R. § 41.37(c)(1)(iv)(2016).

claim construction rather than two or more plausible claim constructions.”

Reply Br. 9

We are not persuaded by Appellants’ arguments that the Examiner erred. The patent statute requires that a claim “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as [the] invention.” 35 U.S.C. § 112, second paragraph. A claim does not comply with § 112, second paragraph, and, therefore, is indefinite, “when it contains words or phrases whose meaning is unclear.” *In re Packard*, 751 F.3d 1307, 1310, 1314 (Fed. Cir. 2014); *see also Ex parte McAward*, Appeal 2015-006416, 2017 WL 3669566, at *5 (PTAB Aug. 25, 2017) (precedential) (adopting the approach for assessing indefiniteness approved by the Federal Circuit in *Packard*). That is, “claims are required to be cast in clear—as opposed to ambiguous, vague, indefinite—terms.” *Packard*, 751 F.3d at 1313.

We agree with the Examiner it is unclear from claim 17 whether the terms “first set of information” and “events” are the same or separate limitations. Similarly, we agree with the Examiner it is unclear from claim 17 whether the terms “criteria” and “strategies” are the same or separate limitations. Although Appellants argue the “criteria . . . are the strategies and the set of information are the events” (*see* App. Br. 14), the use of different terms in the claim connotes different meanings. *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1333 n.3 (Fed. Cir. 2006) (“[T]he use of two terms in a claim requires that they connote different meanings . . .”); *CAE Screenplates Inc. v. Heinrich Fiedler GmbH*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes

different meanings”). Here, Appellants have not provided persuasive evidence from the Specification or otherwise that the different terms used in claim 17 have the same meaning. Thus, we agree with the Examiner that the meaning of the terms “first set of information” and “events,” and “criteria” and “strategies,” is unclear and, therefore, claim 17 is vague and ambiguous.

Accordingly, we sustain the rejection of claims 17, 21, and 29 under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the invention.

*Rejection of Claims 17 and 18 under § 103(a)*⁸

Appellants argue claim 17 is patentable because the asserted art does not teach or suggest

means for the group of participants to contribute their thoughts based on applying two or more strategies against plausible future events, the plausible future events generated by the participants, to anticipate a diversity of future outcomes [“means to contribute”]; and

means for enabling the group of participants to view the first set of information and their associated ratings and upon viewing the first set of information and their associated ratings to rate the diversity of future outcomes [“means for enabling”].

⁸ Although we normally do not assess the propriety of rejections under 35 U.S.C. § 103(a) when we hold the claims indefinite, here Appellants have provided their interpretation of the disputed claim terms, and we exercise our discretion to address the obviousness rejections based on Appellants’ interpretation in the interest of administrative and judicial economy. *See Ex parte Tanksley*, 26 USPQ2d 1384, 1387 (BPAI 1991) (exercising discretion to reach art rejections despite indefiniteness where nature of case permitted). Thus, unlike the case of *In re Steele*, 305 F.2d 859 (CCPA 1962), a determination of obviousness in this case does not require speculation as to the scope of the claims. *Id.* at 862–63.

App. Br. 54–62.⁹

In particular, Appellants argue “Suresh does not disclose any diversity of future outcomes or rating the future outcomes.” App. Br. 56. Appellants also argue “[e]ven if the Appellants agree that comparing the results includes rating, the outcomes of Suresh have already happened and there are no future outcomes disclosed in Suresh.” *Id.* Regarding Heathfield, Appellants argue “the strategies of Heathfield are actions that happen as the consequence of events, i.e., future events.” *Id.* at 59. According to Appellants, “Heathfield does not disclose an already executing strategy that is evaluated against future events.” *Id.* at 60. Appellants also argue Heathfield does not disclose the recited “future outcomes.” *Id.* at 61.

We are not persuaded by Appellants’ arguments. The Examiner finds “Heathfield teaches a first set of information and associated ratings as it discloses various events (first information) and associated impacts (ratings).” Ans. 15 (citing Heathfield ¶ 70). The Examiner also finds Suresh teaches allowing “users to view a first set of information (different modifications/procedures) and allows for the rating of a diversity of possible outcomes (a diversity [of] future outcomes) as it determines an optimal

⁹ We note that Appellants’ arguments regarding these limitations concern whether the recited functions are taught by the cited references and not whether the structure disclosed in the references is the same or equivalent to the corresponding structure disclosed in the Specification for performing these functions. *See Fresenius USA, Inc. v. Baxter Intern., Inc.*, 582 F.3d 1288, 1299 (Fed. Cir. 2009) (“a challenger who seeks to demonstrate that a means-plus-function limitation was present in the prior art must prove that the corresponding structure—or an equivalent—was present in the prior art”).

outcome.” *Id.* at 16 (citing Suresh ¶ 241). For the reasons stated by the Examiner, we agree with these findings. Thus, we also agree with the Examiner that the combined teachings of Heathfield and Suresh teach or suggest “enabling the group of participants to view the first set of information and their associated ratings and upon viewing the first set of information and their associated ratings to rate the diversity of future outcomes,” as recited in the means for enabling limitation of claim 17. *See id.*

Regarding the “means to contribute” limitation of claim 17, the Examiner finds, and we agree, “Heathfield teaches means for the group of participants/experts to contribute their thoughts/reviews based on applying two or more strategies against plausible future events.” *Id.* at 16–17 (citing Heathfield ¶¶ 15, 39, 62, 72). The Examiner also finds, and we agree, “Heathfield further teaches plausible future events generated by the participants/users, to anticipate a diversity of future outcomes.” *Id.* at 17 (citing Heathfield ¶ 33, 72). Thus, we also agree with the Examiner’s finding that Heathfield teaches or suggests “the group of participants to contribut[ing] their thoughts based on applying two or more strategies against plausible future events, the plausible future events generated by the participants, to anticipate a diversity of future outcomes,” as recited in the means for enabling limitation of claim 17.

Accordingly, we sustain the Examiner’s rejection of claim 17 under

§ 103(a).¹⁰ Appellants argue claim 18 is patentable by virtue of its dependency from claim 17. App. Br. 62. Thus, we also sustain the Examiner’s rejection of claim 18.

Rejection of Claims 19–23 and 29 under § 103(a)

Appellants argue independent claims 21 and 29 have similar limitations as claim 17 and, therefore, are patentable for at least the reasons argued with respect to claim 17. App. Br. 62. For the reasons discussed above regarding claim 17, this argument is not persuasive with respect to claims 21 and 29.

Regarding dependent claim 19, Appellants argue Pluschkell does not teach the recited “means for identifying observations and insights to enhance the resilience of each of the criteria.” App. Br. 62. In particular, Appellants argue “although Pluschkell may disclose ranking the comments, it does not disclose any criterion or enhancing resilience of a criterion (strategy).” *Id.* at 64. We are not persuaded by Appellants’ arguments. Instead, we agree with the Examiner’s finding that “Pluschkell teaches means that allow users to

¹⁰ In the Reply Brief, Appellants argue that the Examiner has failed to show the references teach the identical function of each of the ten means plus function limitations of claim 17. Reply Br. 12–15. As discussed *supra*, Appellants make this argument in the Appeal Brief with respect to two of the limitations of claim 17, i.e., the means to contribute and the means for enabling. Because this argument is raised by Appellants with respect to the other eight means plus function limitations of claim 17 for the first time in the Reply Brief not in response to a shift in the Examiner’s position or without otherwise showing good cause, it is waived. *See* 37 C.F.R. § 41.41(b)(2); *see also Ex parte Borden*, 93 USPQ2d 1473, 1474 (BPAI 2010) (informative) (“[T]he reply brief [is not] an opportunity to make arguments that could have been made in the principal brief on appeal to rebut the Examiner’s rejections, but were not.”).

post comments/reviews/questions/suggestions (observations and insights) to improve the idea (enhance the resilience of the criteria).” Ans. 18 (citing Pluschkell ¶ 23).¹¹

Regarding dependent claim 20, Appellants argue Pluschkell does not teach the recited “means for identifying observations and insights to build insurance against identified risks associated with an occurrence of events associated with the subset of information.” App. Br. 64–65. Specifically, Appellants argue “although Pluschkell may disclose ranking the comments, [it] does not disclose building insurance against identified risks associated with occurrence of events.” *Id.* at 65. We are not persuaded by these arguments. Instead, we agree with the Examiner that “Pluschkell teaches means that allow users to post comments/reviews/questions/suggestions (observations and insights) in order to improve an idea against risks associated with an event.” Ans. 19. We also find the broadest reasonable interpretation of the claimed phrase “build insurance” against identified risks reads on Pluschkell’s teaching of “improving the idea” against risks. The Examiner also finds, and we agree, “Heathfield also teaches improving (build insurance) against risks associated with an event.” *Id.* (citing

¹¹ We do not agree with the Examiner that the recitation in claim 19 of “*to enhance the resilience of each of the criteria*” is “a statement of the intended purpose of the identification.” *See* Ans. 19. Instead, we agree with Appellants that the recited language is part of the function of claim 19. In spite of the Examiner’s position, the Examiner finds, as do we, for the reasons discussed *supra*, that the recited function of claim 19 is taught by Pluschkell.

Heathfield Abstract). Thus, we agree with the Examiner that the combination of Pluschkell and Heathfield teaches or suggests claim 20.¹²

Appellants also argue claims 19 and 20 are patentable by virtue of dependency on claim 17. App. Br. 62, 64. Again, this argument is not persuasive because, for the reasons discussed above, the Examiner did not err in finding claim 17 is not patentable under § 103(a).

Thus, we sustain the Examiner’s rejections of claims 19–21 and 29. We also sustain the rejection of dependent claims 22 and 23, which are not separately, substantively argued. *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986) (finding dependent claims not separately argued stand or fall with the claims from which they depend).

Regarding claims 24–28 and 30–36, Appellants argue Caplan does not cure the deficiencies of Heathfield, Suresh, and Wedemeyer. *See* App. Br. 66. Because we find there are no deficiencies of Heathfield and Suresh with respect to independent claims 21 and 29, for the reasons discussed *supra* regarding claim 17, we also sustain the Examiner’s rejection of dependent claims 24–28 and 30–36.

¹² We do not agree with the Examiner that the recitation in claim 20 of “*to build insurance against identified risks associated with an occurrence of events . . .*” is “a statement of the intended purpose of the identification.” *See* Ans. 20. Instead, we agree with Appellants that the recited language is part of the claimed function of the means plus function limitation of claim 20. In spite of the Examiner’s position, the Examiner finds, as do we, for the reasons discussed *supra*, that the recited function of claim 20 is taught by the combination of Pluschkell and Heathfield.

DECISION

We affirm the Examiner's decision rejecting claims 17, 21, and 29 under 35 U.S.C. § 112, second paragraph.

We affirm the Examiner's decision rejecting claims 17–36 under 35 U.S.C. § 101.

We affirm the Examiner's decision rejecting claims 17–36 under 35 U.S.C. § 103(a).

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). *See* 37 C.F.R. § 1.136(a)(1)(iv)(2016).

AFFIRMED