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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* DAVID KIM, ROBERT LIN,  
REBECCA CONWAY JUSTICE, and SENA KWAWU

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Appeal 2017-010641<sup>1</sup>  
Application 13/854,516<sup>2</sup>  
Technology Center 3600

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Before TARA L. HUTCHINGS, AMEE A. SHAH, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a rejection of claims 38, 39, 42–50, 52, and 53. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> Our Decision references Appellants’ Appeal Brief (“Appeal Br.,” filed February 7, 2017), Reply Brief (“Reply Br.,” filed August 15, 2017), the Examiner’s Answer (“Ans.,” mailed June 15, 2017), and Final Office Action (“Final Act.,” mailed September 7, 2016).

<sup>2</sup> Appellants identify Genworth Holdings, Inc. as the real party in interest. Appeal Br. 1.

## CLAIMED INVENTION

Appellants' claims relate "to a system and method for risk assessment, and more particularly to a system and method for risk assessment in connection with insurance pool participation" (Spec. 1:3–5).

Claims 38, 50, and 53 are the independent claims on appeal. Claim 38, reproduced below with bracketed notations added, is illustrative of the claimed subject matter:

38. A computer implemented method that assesses risk associated with participating in an insurance pool based on costs and expected benefits of participating, the computer implemented method implemented on a computing device using a tangibly embodied computer readable medium, the method comprising:

[a] storing, in a database, an insurance pool's percentage share to market, an insurance company's percentage share to pool, the insurance company's percentage share to market, an average policy amount, and a number of casualties in a catastrophic event;

[b] determining, by a computer server comprising a computer processor, an investment index associated with investment by an insurance company in an insurance pool, wherein the investment index comprises a product of the number of casualties, the insurance pool's percentage share to market, the insurance company's percentage share to pool, and the average policy amount, the insurance pool being constituted by member insurance companies each respectively contributing a predetermined amount of respective capital to the pool, and the investment, of said insurance company, being the respective capital contributed by said insurance company;

[c] determining, by the computer processor, a return index associated with an expected return to the insurance company from participating in the insurance pool, wherein the return index comprises a product of the number of casualties, the insurance company's percentage share to market, and the average policy amount;

[d] calculating, by the computer processor, a computed index based on the investment index and the return index, wherein the computed index comprises a difference between the investment and return indices; and

[e] automatically generating and transmitting, by the computer processor, the investment index, the return index and the computed index in a graphical format to an interactive user interface over a communication network.

## REJECTION

Claims 38, 39, 42–50, 52, and 53 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

## ANALYSIS

### *Patent-Ineligible Subject Matter*

Appellants argue claims 38, 39, 42–50, 52, and 53 as a group (Appeal Br. 7–16; Reply Br. 1–6). We select independent claim 38 as representative. The remaining claims stand or fall with claim 38. *See* 37 C.F.R. § 41.37(c)(1)(iv).

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. Yet, subject matter belonging to any of the statutory categories may, nevertheless, be ineligible for patenting. The Supreme Court has interpreted § 101 to exclude laws of nature, natural phenomena, and abstract ideas, because they are regarded as the basic tools of scientific and technological work, such that including them within the domain of patent protection would risk inhibiting future innovation premised upon them. *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013).

Of course, “[a]t some level, ‘all inventions . . . embody, use, reflect, rest upon, or apply’” these basic tools of scientific and technological work. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014) (internal citation omitted). Accordingly, evaluating ineligible subject matter, under this judicial exclusion, involves a two-step framework for “distinguish[ing] between patents that claim the buildin[g] block[s] of human ingenuity and those that integrate the building blocks into something more, thereby transform[ing] them into a patent-eligible invention.” *Id.* (internal quotation marks and citation omitted). The first step determines whether the claim is directed to judicially excluded subject matter (such as a so-called “abstract idea”); the second step determines whether there are any “additional elements” recited in the claim that (either individually or as an “ordered combination”) amount to “significantly more” than the identified judicially excepted subject matter itself. *Id.* at 217–18.

The USPTO recently published revised guidance on the application of § 101, in accordance with judicial precedent. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 57 (Jan. 7, 2019) (“2019 Revised Guidance”). Under the 2019 Revised Guidance, a claim is “directed to” an abstract idea, only if the claim recites any of (1) mathematical concepts, (2) certain methods of organizing human activity, and (3) mental processes — without integrating such abstract idea into a “practical application,” i.e., without “apply[ing], rely[ing] on, or us[ing] 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.” *Id.* at 53–55. A claim so “directed to” an abstract idea constitutes ineligible subject matter, unless it

recites an additional element (or combination of elements) amounting to significantly more than the abstract idea. *Id.* at 56.

With regard to the first step of the *Alice* framework, the Examiner states that independent claim 38 is directed towards “risk assessment in connection with insurance pool participation” (Final Act. 3), and determines that the process recited in independent claim 38 is directed to “a fundamental economic practice (concepts relating to commerce such as forming contracts and business relations) and a method of organizing human activity (concepts relating to interpersonal activities such as managing transactions and sales activities)” (*id.*). When viewed through the lens of the 2019 Revised Guidance, the Examiner’s analysis depicts the claimed subject matter as one of the ineligible “[c]ertain methods of organizing human activity” that include “fundamental economic principles or practices” and “commercial . . . interactions,” such as “advertising, marketing or sales activities or behaviors” and “business relations,” as well as “managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions)” under Prong One of Revised Step 2A. *See* 2019 Revised Guidance, 84 Fed. Reg. at 51–52.

In response to the Examiner’s determination, Appellants argue that independent claim 38 “do[es] not simply claim the general concept of ‘allowing users to assess the risk of an investment’” (Appeal Br. 12 (citing Final Act. 4)); but rather, “recite[s] a very specific method for determining whether to participate in an insurance pool” (Appeal Br. 12; *see also id.* at 7–11). We cannot agree.

Under the first prong of step 2A of the 2019 Revised Guidance, we first determine if the claims recite an abstract idea. In this regard, we note that the Specification is titled “SYSTEM AND METHOD FOR POOL RISK ASSESSMENT.” The Specification discloses that “[t]he present invention relates to a system and method for risk assessment, and more particularly to a system and method for risk assessment in connection with insurance pool participation” (Spec. 1:3–5). According to the Specification,

[r]isk assessment is a cornerstone of the insurance industry. An insurance company’s success is based, in part, on its ability to accurately predict, assess, and thereafter assume risk. Assumption of too much risk may result in the insurance company not having enough reserve capital to cover its claims, while assumption of too little risk may result in unrealized business opportunities.

(*Id.* at 1:6–10). The Specification identifies that “[a] common industry response to a catastrophic event is to form an insurance pool--a collection of member insurance companies each contributing a predetermined amount of capital to the pool” (*id.* at 1:18–20). However, the Specification describes that after the September 11 attacks, “[m]any insurance companies formerly associated with such pools have withdrawn their participation in response to the heavy losses incurred” (*id.* at 2:3–9). The Specification discloses that there is presently “no system or method whereby an insurance company may assess or determine the expected costs, benefits and/or risks that result from participating in an insurance pool” (*id.* at 2:12–14). To address these drawbacks, the present invention “provide[s] a system and method for assessing the risks of participating in an insurance pool based on the costs and expected benefits of participating” (*id.* at 2:24–26).

Consistent with this description, independent claim 38 recites broadly “[a] method that assesses risk associated with participating in an insurance pool based on costs and expected benefits of participating” including steps for “storing” data (i.e., “[1] an insurance pool’s percentage share to market, [2] an insurance company’s percentage share to pool, [3] the insurance company’s percentage share to market, [4] an average policy amount, and [5] a number of casualties in a catastrophic event”), “determining . . . an investment index,” “determining . . . a return index,” “calculating . . . a computed index based on . . . a difference between the investment and return indices,” and “automatically generating and transmitting . . . the investment index, the return index and the computed index . . . to an interactive user interface.”

Upon reviewing the Specification and the claim as whole, as summarized above, we agree with the Examiner that exemplary independent claim 38 is at least directed to one of the ineligible “[c]ertain methods of organizing human activity” that include “fundamental economic principles or practices” and “commercial . . . interactions” (*see* Final Act. 3). Here, independent claim 38 “stor[es]” data (limitation [a]), “determin[es] . . . an investment index” based on a portion of the stored data (limitation [b]), “determin[es] . . . a return index” based on a portion of the stored data (limitation [c]), “calculate[es]. . . a computed index,” which is simply the “difference between the investment and return indices” (limitation [d]), and then “transmit[s] . . . the investment index, the return index and the computed index . . . to an interactive user interface” (limitation [e]). Together these steps simply provide a user with data that enables a user to

assess “the risks, benefits and/or costs associated with participating in an insurance pool” (*cf.* Spec. 2:19–26).

Thus, like the concept of intermediated settlement in *Alice*, and the concept of hedging in *Bilski*, the concept of “risk assessment in connection with insurance pool participation” (Final Act. 3) recited in exemplary independent claim 1 “is a fundamental economic practice long prevalent in our system of commerce.” *Alice*, 573 U.S. 216 (citations and internal quotation marks omitted). Accordingly, we conclude that exemplary independent claim 38 recites fundamental economic practices and/or commercial transactions that, under the Revised Guidance, fall under the category of abstract ideas related to “[c]ertain methods of organizing human activity.” 2019 Revised Guidance, 84 Fed. Reg. at 52. Accordingly, independent claim 38 recites an abstract idea.

Next, we turn to the second prong of step 2A of the 2019 Revised Guidance and determine whether the claims recite a practical application of the recited judicial exception. Here we look to see if, for example, (i) any additional elements of the claims reflects an improvement in the functioning of a computer or to another technological field, (ii) an application of the judicial exception with, or by use of, a particular machine, (iii) a transformation or reduction of a particular article to a different state or thing (iv) or a use of the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment. *See* 2019 Revised Guidance, 84 Fed. Reg. at 55; *See also* MPEP § 2106.05(a)–(c), (e)–(h).

Appellants argue that independent claim 1 “improve[s] efficiencies, both physical and transactional, for ‘assess[ing] risk associated with

participating in an insurance pool based on costs and expected benefits of participating” (Appeal Br. 15 (emphases omitted); *see also* Reply Br. 4). However, we find no indication in the Specification that the present invention improves a computer or other technology, invokes any assertedly inventive programming, requires any specialized computer hardware or other inventive computer components (*see, e.g.*, Spec. 13:9–14:4, 16:17–24, 17:14–18:3), 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.”) (*see also* Ans. 6–9). Instead, the “improvements” to which Appellants refer are business improvements rather than an improvement to a technological or technical field (*see OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (“[R]elying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.”) (*see also* Ans. 7).

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 “appl[ies], rel[ies] on, or us[es] 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.” *See* 2019 Revised Guidance, 84 Fed. Reg. at 54.

Appellants argue that independent claim 38 is similar to the claims in *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016). More particularly, Appellants argue

the claims here recite improvements to conventional systems and methods that require a very particular system that “determin[es], by a computer server comprising a computer processor, an investment index associated with investment by an insurance company in an insurance pool, wherein the investment index comprises a product of the number of casualties, the insurance pool’s percentage share to market, the insurance company’s percentage share to pool, and the average policy amount, the insurance pool being constituted by member insurance companies each respectively contributing a predetermined amount of respective capital to the pool, and the investment, of said insurance company, being the respective capital contributed by said insurance company.” Thus, like the claims in *Bascom*, the novel and non-generic arrangements recited in the claim are patent-eligible.

(Reply Br. 5.) We cannot agree.

The difficulty with Appellants’ argument is that Appellants simply reproduce limitations from independent claim 38 and assert, without explaining, that the present claim is similar to claims in *Bascom*. Appellants fail to provide adequate evidence or technical reasoning that independent claim 38 improves some existing technological process or solves some technological problem in conventional industry practice, such as in *Diamond v. Diehr*, 450 U.S. 175 (1981). See *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1334 (Fed. Cir. 2015) (Determining that the “claims recit[ed] a commonplace business method aimed at processing business information despite being applied on a general purpose computer.”), *cert. denied*, 136 S. Ct. 2510 (2016); see also *Alice*, 573 U.S. at 224.

Consequently, we are not persuaded that independent claim 38 is similar to the claims in *Bascom*, which recited a “non-conventional and non-generic arrangement of known, conventional pieces” within a network, the arrangement of elements being “a technical improvement over prior art ways of filtering.” *Bascom*, 827 F.3d at 1350; *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (“Rather, the ‘interactive interface’ simply describes a generic web server with attendant software, tasked with providing web pages to and communicating with the user’s computer.”).

We are not persuaded of Examiner error to the extent Appellants maintain that the claims are patent-eligible because “[t]he claims do not wholly pre-empt the field of ‘allowing users to assess the risk of an investment’ due to numerous non-infringing alternatives that are significant and substantial” (Appeal Br. 12; *see also* Reply Br. 5–6). There is no dispute that the Supreme Court has described “the concern that drives [the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption,” *Alice Corp.*, 573 U.S. at 216. But, characterizing preemption as a driving concern for patent eligibility is not the same as characterizing preemption as the sole test for patent eligibility. “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 573 U.S. at 216). “[P]reemption may signal patent ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

Appellants also appear to argue that independent claim 38 is not directed to an abstract idea because it is similar to the claims at issue in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) (Reply Br. 4). However, Appellants do not point to anything in the claims that resembles the improvement to the technical field of computer animation that was not simply the use of a generic computer in *McRO*. Appellants do not direct our attention to anything in the Specification to indicate that the present invention provides an improvement in the computer's technical functionality. The claims recite no technical element or details for implementing the steps, and the "improvement" to which Appellants refer is a business improvement rather than a technological one.

Turning to Step 2B of the of the 2019 Revised Guidance, we determine whether the additional elements or combination of elements (1) add a specific limitation or combination of limitations that is not well-understood, routine, and conventional activity in the field, which is indicative that an inventive concept may be present; or (2) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present. *See* 2019 Revised Guidance, 84 Fed. Reg. at 56.

Appellants argue that independent claim 38 recites limitations which "represent 'significantly more' than the alleged abstract idea of 'risk assessment in connection with insurance pool participation'" (Appeal Br. 10). However, we agree with the Examiner that:

[t]he elements of the instant process, when taken in combination, together do not offer substantially more than the sum of the functions of the elements when each is taken alone.

That is, the elements involved in the recited process undertake their roles in performance of their activities according to their generic functionalities which are well-understood, routine and conventional. The elements together execute in routinely and conventionally accepted coordinated manners and interact with their partner elements to achieve an overall outcome which, similarly, is merely the combined and coordinated execution of generic computer functionalities which are well-understood, routine and conventional activities previously known to the industry.

(Final Act. 10; *see also id.* at 9–10 (citing Spec. 13–15).)

Finally, to the extent Appellants maintain that the claimed invention is patent-eligible, i.e., that claim 38 amounts to “significantly more” than an abstract idea, because “[t]he Office Action cannot cite to any prior art references that anticipate or render obvious the claimed combination of features” (Appeal Br. 13; Reply Br. 3–4), Appellants misapprehend the controlling precedent.

Neither a finding of novelty nor a non-obviousness determination automatically leads to the conclusion that the claimed subject matter is patent-eligible. Although the second step in the *Mayo/Alice* 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 217–18 (citation omitted).

“Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.” *Ass’n for Molecular Pathology*, 569 U.S. at 591. A novel and non-obvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 90; *see also Diamond*,

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450 U.S. at 188–89 (“The ‘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.”).

We are not persuaded, on the present record, that the Examiner erred in rejecting independent claim 38 under 35 U.S.C. § 101. Therefore, we sustain the Examiner’s rejection of independent claim 38, and claims 39, 42–50, 52, and 53, which fall with independent claim 38.

#### DECISION

The Examiner’s rejection of claims 38, 39, 42–50, 52, and 53 under 35 U.S.C. § 101 is affirmed.

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

AFFIRMED