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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* TIMOTHY J. SCUDDER and KENT MITCHELL<sup>1</sup>

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Appeal 2018-000716  
Application 14/258,241  
Technology Center 3700

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Before MICHAEL L. HOELTER, MICHELLE R. OSINSKI, and  
LEE L. STEPINA, *Administrative Patent Judges*.

STEPINA, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from a rejection of claims  
19–38.<sup>2</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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<sup>1</sup> The Appeal Brief lists Personal Strengths Publishing, “Appellant,” as the  
real party in interest. Appeal Br. 2.

<sup>2</sup> Claims 1–18 are withdrawn. Appeal Br. A-1–A-3 (Claims App.).

### CLAIMED SUBJECT MATTER

The claims are directed to a system and stored set of instructions for displaying personality assessment results. Claim 19, reproduced below, is illustrative of the claimed subject matter:

19. A system for displaying results of a personality assessment, the system comprising:
  - at least one hardware processor; and
  - one or more executable software modules that, when executed by the at least one hardware processor, for each of one or more people,
    - receive a plurality of selections from an ipsative assessment completed by the person,
    - calculate a motivational-value-system (MVS)<sup>[3]</sup> set of scores and a conflict sequence (CS)<sup>[4]</sup> set of scores for the person based on the plurality of selections,
    - calculate a first point, corresponding to the MVS set of scores, within a triangle,
    - calculate a second point, corresponding to the CS set of scores, within the triangle,
    - display the triangle with a first indication at the first point and a second indication at the second point, wherein the triangle comprises
      - three sides of equal length,
      - three vertices,
      - seven demarcated MVS regions representing seven well states into which a person is classifiable, wherein the seven MVS regions comprise a hexagon-shaped MVS Hub region in a center of the triangle and six MVS regions surrounding the hexagon-shaped MVS Hub region, and wherein the seven MVS regions cover the entire area of the triangle,
      - thirteen demarcated CS regions representing thirteen conflict states into which a person is classifiable, wherein the thirteen CS regions comprise

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<sup>3</sup> Spec. ¶ 7.

<sup>4</sup> Spec. ¶¶ 8–11.

a hexagon-shaped CS Hub region in the center of the triangle and twelve CS regions surrounding the hexagon-shaped CS Hub region, and wherein the thirteen CS regions cover the entire area of the triangle so as to overlap the seven MVS regions.

Appeal Br. A-4 (Claims App.). Appellant’s Summary of the Claimed Subject Matter refers to Figures 9–17 and 19 as depicting the structure<sup>5</sup> recited in claim 19. *Id.* at 2–4. Figures 1–8 depict prior art versions of the triangle recited in claim 19. *See* Figs. 1–8, Spec. ¶¶ 76–79.

#### REJECTION

Claims 19–38 are rejected under 35 U.S.C. § 101 as being directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Final Act. 2.

#### OPINION

Appellant makes arguments for the patent eligibility of claims 19–38 as a group. *See* Appeal Br. 4, 9. We select claim 19 as the representative claim, and claims 20–38 stand or fall with claim 19. *See* 37 C.F.R. § 41.37(c)(1)(iv).

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract

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<sup>5</sup> Figure 12 is a flowchart depicting certain functions recited in independent claims 19 and 29 and dependent claims.

ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. See *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *Id.* at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, i.e., the use of a third party to mitigate settlement risk.”); see also *Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 679 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive

concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citation and quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* ((alteration in the original) quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

In January of 2019, the PTO published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (hereinafter “Memorandum”). Under Step 2A of that guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, in Step 2B, to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

*See Memorandum.*

*Step 1 – Statutory Category*

Claim 19 recites a system including a hardware processor, and, therefore, is a machine. *See Appeal Br. A-4 (Claims App.).*

*Step 2A, Prong 1 – Recitation of Judicial Exception*

In determining that claim 19 is directed to a judicial exception to patent eligibility, without significantly more, the Examiner takes the position that this claim is directed to performing clinical tests and then analyzing the results. Final Act. 3. The Examiner characterizes the steps of receiving a plurality of selections from an assessment and calculating a plurality of scores based on the selections as “comparing of new and stored data and the use of rules to identify options.” *Id.* Additionally, the Examiner determines that claim 19 “essentially involve[s] the use of input data to perform calculations and then visually represent the calculations.” *Id.*

Appellant asserts that the Examiner erred because the Examiner’s analysis “ignores the half of the claim that represents the entire gist of the claim and the stated improvement of the invention, i.e., to improve the SDI® triangle.” Appeal Br. 4 (citing Spec. ¶¶ 66–69). Appellant then quotes claim 19, beginning with the “display” step and concludes “[i]gnoring half of the claim limitations (over 60% by word count) – let alone, the entire gist of the claim - fails to consider the claim in its ‘entirety’ — let alone, with sufficient specificity to ensure a meaningful inquiry, as required under the law.” *Id.* at 5.

As recited in claim 19, the system includes at least one software module that receives a plurality of a person's selections from an ipsative<sup>6</sup> assessment completed by that person, *calculates MVS scores and CS scores based on these selections, calculates first and second points corresponding, respectively, to the MVS and CS scores*, and then plots these points in a triangle. *See* Appeal Br. A-4. The triangle is then displayed. *See id.* Accordingly, claim 19 explicitly recites two different calculations and plotting of the results of these calculations on a diagram (the triangle). Thus, we agree with the Examiner (*see* Final Act. 3) that claim 19 recites performing mathematical calculations, which is an abstract idea. *See* Memorandum 52; *Bilski*, 561 U.S. at 611 (“The concept of hedging . . . reduced to a mathematical formula . . . is an unpatentable abstract idea”).

We also agree with the Examiner that collection of the above-noted data (a person's selections from an ipsative assessment) and then performing scoring based on this data amounts to “comparing of new and stored data and the use of rules to identify options.” Final Act. 3. These steps can be performed practically entirely in the human mind. Accordingly, claim 19 recites a mental process, which is another of the three enumerated categories of abstract ideas set forth in the Memorandum. *See* Memorandum 52; *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1139, 1149 (Fed. Cir. 2016) (holding that claims to the mental process of “translating a functional description of a logic circuit into a hardware component description of the logic circuit” are directed to an abstract idea, because the

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<sup>6</sup> “Designating or involving a measurement or scale calculated relative to a person's own performance or responses, rather than those of others.” <https://en.oxforddictionaries.com/definition/ipsative> (last visited May 17, 2019).

claims “read on an individual performing the claimed steps mentally or with pencil and paper”).

As for Appellant’s argument that the Examiner failed “to address the entire gist of the claim, i.e., the improvements to the SDI® Triangle” (Appeal Br. 5), we address the limitations of the displayed triangle, i.e., the limitations following the recitation of the above-noted abstract ideas, in Step 2A, prong 2 and in Step 2B.

*Step 2A, Prong 2 – Integrated Into a Practical Application*

If a claim recites a judicial exception, then, in Step 2A, Prong 2, we determine whether the recited judicial exception is integrated into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application. *See Memorandum*. This evaluation requires an additional element or a combination of additional elements in the claim to 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 exception. *See id.*

Referring to a Declaration executed by Timothy J. Scudder<sup>7</sup> (hereinafter the “Scudder Declaration”), Appellant asserts that, in the prior art triangle used for personality assessments such as described in the Specification, “human judgment was required . . . , reproducibility was

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<sup>7</sup> Timothy J. Scudder is one of the named inventors in the present application.

diminished, and personality assessments could not be processed in high volumes.” Appeal Br. 8; *see also* Scudder Declaration. Appellant contends that, in contrast to previous personality assessments using a conventional triangular diagram, claim 19 improves an existing technological process because “‘a hexagon-shaped MVS Hub region,’ allow[s] computers to produce more accurate, reproducible, and scalable personality assessments that previously required human judgment.” Appeal Br. 8 (citing Spec. ¶¶ 3–5).

We disagree with Appellant’s arguments on this point. The Scudder Declaration states that in conventional SDI® triangles,

when a set of three scores resulted in an intersection that was exactly on a straight boundary of the surrounding MVS regions or near the curved boundary of the circular MVS hub, a human judgment was required with respect to a personality assessment for the individual represented by that intersection.

Scudder Declaration ¶ 3. Due to such difficulties, Mr. Scudder “devised new numerical definitions for each of the seven MVS regions, including the MVS hub, as well as the thirteen Conflict Sequence (CS) regions,” and, after Mr. Scudder devised these new numerical definitions, he “drew a new triangle using those definitions.” *Id.* ¶ 4. Mr. Scudder states that he “was surprised to find the appearance of a hexagon-shaped MVS hub, and a reshaping of the CS boundaries.” *Id.* Thus, the Scudder Declaration supports a finding that *the way the information in the triangle is depicted* is the cause of any improved functionality. The fact that such improved functionality persists when the triangle is implemented via a computer does not improve the functionality of the computer itself. In other words, the limitations in claim 19 following the phrase “display the triangle” do not

improve the functionality of the recited hardware processor that performs the display function. Rather, these limitations define how the information collected in the previously recited steps is displayed.

Appellant's Specification supports this reading of claim 19. For example, paragraph 71 of the Specification explains that, for one embodiment of the invention, "a printed material for plotting results of a personality assessment is disclosed[, and t]he printed material comprises a triangle that comprises [the limitations following the phrase 'display the triangle' in claim 19]." We also reproduce paragraph 93 below, with emphasis added.

As a result of the mathematical definitions above, which include boundaries lying at decimal numbers (e.g., 24.3, 33.3, and 42.3 for MVS, and 27.3 and 39.3 for CS) as opposed to whole numbers, the border lines between the MVS and CS regions differ from those in a conventional SDI® Triangle. However, for simplicity of understanding, the references used for the regions in the modified SDI® Triangles illustrated herein are the *same as those used for the conventional SDI® Triangles*. Even though these regions may differ in area and/or shape in the modified SDI® Triangles, *they still represent the same well types and conflict types as the analogous regions in conventional SDI® Triangles*.

Thus, Appellant's Specification explains that the inventive triangle changes the boundaries from those provided in a conventional SDI® Triangle. Appellant's Specification further states, "[t]he modified SDI® Triangle may be provided on *printed material* as a tool for personality assessment. For example, the modified SDI® Triangle illustrated in FIG. 11 may be *printed on a substrate, such as paper*." Spec. ¶ 108 (emphasis added); *see also* Appeal Br. A-1 (Claims App.)("A material for plotting

results of a personality assessment, wherein the material comprises: a substrate; and a triangle printed on the substrate.”).

We do not agree with Appellant (*see* Appeal Br. 7–8; Reply Br. 4–5) that displaying such printed material, based on collected data, with a system using a hardware processor, improves an existing technological process. “[T]he claims here fail because arranging information along an axis does not improve the functioning of the computer, make it operate more efficiently, or solve any technological problem.” *Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1378, 1385 (Fed. Cir. 2019). Thus, contrary to Appellant’s assertions (Appeal Br. 7–8), the claims are not analogous to those of *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) because in *McRO*, the court concluded that the claims were directed to a technological improvement over existing, manual 3-D animation techniques and used limited rules in a process specifically to achieve an improved technological result.

Further, in the context of 35 U.S.C. § 102, our reviewing court has held that non-functional descriptive material cannot lend patentability to an invention that would have otherwise been anticipated by the prior art. *In re Ngai*, 367 F.3d 1336, 1339 (Fed. Cir. 2004). We determine that the limitations in Appellant’s claim 19 defining the triangle are non-functional descriptive material, which, as explained below, informs the analysis in step 2A, prong 2 and step 2B. In *Ngai*, the Examiner allowed claim 1, which recited a method, and rejected claim 19, which recited a kit with, among other things, instructions describing the method of allowed claim 1. *Id.* at 1337–1338. *Ngai* argued that the addition of new printed matter to a known product makes the product patentable, and therefore, the rejection of claim

19 was improper. *Id.* at 1338. Rejecting Ngai’s argument, the court said, “[i]f we were to adopt Ngai’s position, anyone could continue patenting a product indefinitely provided that they add a new instruction sheet to the product. . . . [Ngai is not] entitled to patent a known product by simply attaching a new set of instructions to that product.” *Id.* at 1339.

The recitations regarding the particular values and shapes of the various borders in the triangle of Appellant’s claim 19 are similar to the recited instructions on the package in *Ngai*. Specifically, the various limitations regarding the triangle after the phrase “display the triangle” in claim 19 are not functionally related to the substrate upon which they are placed, as evidenced by Appellant’s Specification. *See Spec.* ¶¶ 71, 93, 104, 108. Rather, the recited triangle is merely a graphical depiction used to convey information. *See id.* As our reviewing court has generally found, printed matter falls outside the scope of § 101 (*see AstraZeneca LP v. Apotex, Inc.*, 633 F.3d 1042, 1064 (Fed. Cir. 2010); *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1161 (Fed. Cir. 2018)), and given that the triangle recited in claim 19 is not functionally *related to its substrate*,<sup>8</sup> the triangle does not integrate the judicial exception recited in claim 19 into a practical application of that exception.

*Step 2B – Well-Understood, Routine, Conventional Activity*

In Step 2B, we determine whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field. *See Memorandum.*

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<sup>8</sup> Whether the Triangle has a function, *per se*, is a different question from whether the Triangle is functionally related to its substrate. *See Ngai*, 367 F.3d at 1339.

Appellant asserts that the system recited in claim 19 creates no preemption problem because claim 19 limits the way the recited triangle is depicted. *See* Appeal Br. 8–9; Reply Br. 5.

As our reviewing court has explained, “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). Although “preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Id.* Moreover, “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the [*Alice/Mayo*] framework . . . , preemption concerns are fully addressed and made moot.” *Id.*; *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 701 (2015) (“[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the ecommerce setting do not make them any less abstract.”).

Although claim 19 specifically limits, in various ways, the depiction of the recited triangle, and, therefore, would seem to exclude numerous other depictions of the same information, we do not agree that claim 19 recites anything significantly more than the abstract ideas discussed above in Step 2A. In particular, the particular depiction of the triangle recited in claim 19 is non-functional descriptive material, which, as explained in *Guldenaar*, does not transform an otherwise ineligible claim into an eligible one. “Because the only arguably unconventional aspect of the recited method of playing a dice game is printed matter, which falls outside the scope of § 101, the rejected claims do not recite an ‘inventive concept’ sufficient to

‘transform’ the claimed subject matter into a patent-eligible application of the abstract idea.” *In re Guldenaar*, 911 F.3d at 1162.

Appellant also compares claims 19–38 to withdrawn claims 1–18, stating “[c]laims 1-18 are directed to the same specifically-defined triangle as Claims 19–38” and “as a manufacture and/or composition of matter, Claims 1–18 are indisputably eligible under 35 U.S.C. 101.” Appeal Br. 9. Appellant’s assertion that claims 1–18 are patent eligible, and, therefore, claims 19–38 are too, is not persuasive. Our analysis of claims 19–38 is set forth above, and we need not address the patent-eligibility *vel non* of claims 1–18 as these claims are not part of the present appeal.

We have considered all of Appellant’s arguments in support of the patent eligibility of claim 19, but find them unpersuasive. Accordingly, we sustain the rejection of claims 19–38 under 35 U.S.C. § 101.

#### DECISION

The Examiner’s rejection of claims 19–38 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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED