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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DANIEL P. LANKTEEE

Appeal 2018-007483
Application 12/705,960
Technology Center 3700

Before JENNIFER D. BAHR, EDWARD A. BROWN, and
MICHELLE R. OSINSKI, *Administrative Patent Judges*.

BROWN, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1 and 4–22.² We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Gold Cross Benefits Corporation. Appeal Br. 2.

² Claims 2 and 3 are cancelled. Final Act. 2.

CLAIMED SUBJECT MATTER

Claims 1, 19, and 20 are independent claims. Claim 1 illustrates the claimed subject matter and is reproduced below with reference letters added in brackets.

1. A computer-implemented driver training program method for improving driving skills and behaviors of a participant, the method comprising steps of:

[A] obtaining by at least one vehicle computer actual driving information of the participant, the actual driving information of the participant comprising at least some information selected from the group consisting of acceleration, braking, absolute speed, cornering forces, and car-to-car-in-front distance, the actual driving information being logged by one or more sensors selected from the group consisting of acceleration sensor, braking sensor, cornering sensor, proximity to other cars sensor, and global positioning system;

[B] obtaining by at least one first computer a psychological profile of the participant, wherein the psychological profile is in accordance with a behavioral model based on a plurality of primary emotions and associated behaviors, the psychological profile comprising profile information selected from the group consisting of (1) identification of a primary psychological trait of the participant, (2) identification of a personality type of the participant, and (3) classifications of the participant as having one of a plurality of traits in each of a plurality of personality categories, and wherein the psychological profile is based at least in part on the actual driving information of the participant;

[C] analyzing by the at least one first computer the profile information in the psychological profile of the participant to select from a plurality of driver education curricula a selected driver education curriculum for the participant, wherein the selected driver education curriculum is selected based at least in part on the psychological profile, the plurality of driver education curricula comprising a plurality of courses, the plurality of courses being stored in a database

together with information for matching the plurality of courses to different personality traits; and

[D] delivering the selected driver education curriculum to the participant through a network by the at least one first computer;

[E] wherein the step of obtaining by the at least one first computer the psychological profile comprises administering to the participant a psychological profiling test comprising a plurality of questions, and determining the psychological profile of the participant based on answers of the participant to the plurality of questions and the actual driving information.

Appeal Br. 29–30 (Claims App.).

REJECTIONS

Claims 1 and 4–22 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Final Act. 30.

Claim 19 is rejected under 35 U.S.C. § 112, first paragraph, as lacking adequate written description.³ Final Act. 28.

Claims 1 and 4–22 are rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 2.

ANALYSIS

Claims 1 and 4–22 — Indefiniteness

The Examiner determines that claims 1, 19, and 20 are each indefinite. Final Act. 30–32. The Examiner notes that claim 1 recites the limitations “obtaining by at least one **vehicle computer** actual driving information of the participant . . . obtaining by at least one **first computer** a psychological profile of the participant . . . wherein the psychological profile is based at

³ The rejection of claim 20 under this ground has been withdrawn. Ans. 2.

least in part on the actual driving information of the participant.” *Id.* at 30 (italics omitted). The Examiner states, “it is unclear how the ‘first computer’ obtains the ‘*actual driving information of the participant*’ since there appears to be no means of communication between the ‘vehicle computer’ and the ‘first computer.” *Id.* at 31. The Examiner notes that claim 19 recites the limitations “the **first computer system** to . . . obtain actual driving patterns information of a participant . . . and a **second computer system** configured to . . . determine a psychological profile of the participant based on . . . the actual driving patterns information of the participant.” *Id.* (italics omitted). Similar to claim 1, the Examiner determines that “it is unclear how the ‘second computer system’ obtains the ‘*actual driving patterns information of the participant*’ since there appears to be no means of communication between the ‘first computer system’ and the ‘second computer system’” in claim 19. *Id.*

The Examiner notes that claim 20 recites the limitations “when the instructions are executed by one or **more processors of one or more computer systems** . . . obtaining by the one or **more computer systems** actual driving information of the participant . . . administering by the one or **more computer systems** to the participant a psychological profiling test . . . determining by the one or **more computer systems** a psychological profile of the participant . . . analyzing by the one or **more computer systems** the profile information in the psychological profile of the participant . . . delivering by the one or **more computer systems** the selected driver education curriculum to the participant through a network.” *Id.* at 31–32 (italics omitted). The Examiner determines that “it is unclear how multiple computer systems are arranged in order to achieve the steps recited

according to claim 20 (*e.g. it is unclear whether the plurality of computer systems are coordinating with one another, or each computer system is operating independently . . .*).” *Id.* at 32.

Appellant acknowledges that claim 1 does not recite any explicit connection between the vehicle computer and the first computer, but contends this only makes the claim broad in this aspect, not indefinite. Appeal Br. 27. Appellant contends that the details of this connection are not essential to the operation of the claimed subject matter. *Id.* Appellant further contends that claim 19 recites a functional relationship between the computer systems, that is, one computer system (first computer system) obtains the actual driving patterns information through various sensors and the other computer system (second computer system) determines the psychological profile and the curriculum based on the actual driving patterns information. Reply Br. 7.

The Examiner responds that “the features of a given claim are required to be bounded (*e.g. the structural and/or functional features*). Accordingly, if any of the features of the claim is unbounded or limitless, a rejection under section § 112(b) is appropriate.” Ans. 44. As understood, the Examiner’s position is that because claims 1 and 19 do not recite “a means to transfer the driving data from the vehicle computer to the external computer,” and claim 20 does not recite “a means to transfer the driving data from the vehicle to one or more of the external computers,” claims 1, 19, and 20 are each “unbounded or limitless,” and thus, indefinite. *Id.* at 45.

Appellant’s position is more persuasive. “A claim [in an application] 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 Ex parte*

McAward, No. 2015-006416, slip op. at 11 (PTAB Aug. 25, 2017) (precedential) (same). Here, the Examiner does not determine that claim 1, 19, or 20 contains any word or phrase whose meaning is unclear. Rather, the Examiner's position is that these claims are indefinite because they do not recite a "communication means" for transferring driving data from a vehicle computer to an external computer, which makes it unclear *how* the first computer of claim 1 or the second computer system of claim 19 obtains the recited "actual driving information of the participant," or *how* the recited computer systems are arranged to operate in relation to each other in claim 20. Ans. 45. We understand the Examiner's position to be that this makes *how* the data is transferred from a vehicle computer to an external computer "unbounded or limitless," such that claims 1, 19, and 20 have *undue breadth*.

35 U.S.C. § 112, second paragraph, requires that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming *the subject matter which the applicant regards as his invention.*" (Emphasis added). Appellant's contention that the specific details of the connection between the computers for transferring actual driving information are not essential to the operation of the claimed subject matter shows that Appellant regards the *claimed* subject matter as the invention. Appeal Br. 27. Even if not reciting details of the connection makes claims 1, 19, and 20 broad in this aspect, merely having a broad scope is not a proper basis for the rejection because "breadth is not to be equated with indefiniteness." *In re Miller*, 441 F.2d 689, 693 (CCPA 1971). The Examiner has provided no persuasive reason why "those skilled in the art

will be in . . . [any] uncertainty concerning what subject matter falls within the scope of the claims.” *Id.*

As the Examiner has not established that claims 1, 19, and 20 are indefinite, we do not sustain the rejection of claims 1 and 4–22 under 35 U.S.C. § 112, second paragraph.⁴

Claim 19 — Written Description

The Examiner finds that Appellant’s original disclosure does not disclose “**An apparatus** comprising: **a first computer system** comprising: one or more sensors . . . and **a second computer system** configured to: administer to the participant psychological profiling test . . . deliver the selected driver education curriculum to the participant,” as claimed. Final Act. 29 (italics omitted). The Examiner finds that, according to the original disclosure, the computer system implemented to deliver the driver education curriculum to the participant is different or separate from the vehicle computer system that collects data from sensors on the vehicle because there is no “link” between the systems. *Id.* (citing Spec. p. 11, ll. 3–6, p. 14); Ans. 43.

Appellant contends that the claimed first and second computer systems are tied together through a functional relationship, and that is sufficient. Reply Br. 6. Appellant also contends that the written description

⁴ The Examiner’s reasons for rejecting claims 1, 19, and 20 as indefinite seem more akin to a basis for rejection under 35 U.S.C. § 112, first paragraph, for lack of an enabling disclosure.⁴ See MPEP § 2173.04 (“If the claim is too broad because it is not supported by . . . an enabling disclosure, a rejection under 35 U.S.C. 112(a) or pre-AIA 35 U.S.C. 112, first paragraph, would be appropriate.”) However, no such rejection is before us.

requirement does not require the Specification “to describe that which is not claimed.” Reply Br. 6.

As understood, the Examiner’s position is that the original disclosure does not describe *an* apparatus that includes *both* a first computer system *and* a second computer system because there is no described “link” between these computer systems. We agree with Appellant, however, that the Specification is only required to describe the invention, *as claimed*. *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1333 (Fed. Cir. 2003). We agree with Appellant that because claim 19 does not recite any “link” between the first and second computer systems, the Specification is not required to describe such link. Accordingly, we do not sustain the rejection of claim 19 under 35 U.S.C. § 112, first paragraph, as lacking adequate written description.

Claims 1 and 4–22 — Patent Eligibility

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 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*. *Id.* 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.” *See Alice*, 573 U.S. at 219.

Concepts that have been determined to be abstract ideas, and thus patent-ineligible, include certain methods of organizing human activity (*Alice*, 573 U.S. at 219–20; *Bilski v. Kappos*, 561 U.S. 593 (2010)); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)).

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 (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.* (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.*

On January 7, 2019, the PTO issued revised guidance on the application of § 101. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (hereinafter “Guidance”). Under Step 2A, Prong 1, of the Guidance, we first look to whether the claim recites any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activities, or mental processes). *See id.* at 54.

If a claim recites a judicial exception, we proceed to Step 2A, Prong 2, of the Guidance and determine whether the claim recites additional elements

that integrate the judicial exception into a practical application. *See id.*; *see also* MPEP § 2106.05(a)–(c), (e)–(h).

Only if a claim both recites a judicial exception and fails to integrate the judicial exception into a practical application, do we proceed to Step 2B of the Guidance. At 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* MPEP § 2106.05(d)); or simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *See* 84 Fed. Reg. 56.

Claim Grouping

Appellant separately argues the rejection of claim 1 (Appeal Br. 13–22) and relies on the same argument for claims 19 and 20 (*id.* at 22–23). Appellant also presents separate arguments for claims 4, 5, 21, and 22, which depend from claim 1. *Id.* at 23–25. We select claim 1 as representative, treating claims 19 and 20 as standing or falling with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv). We also address the separate arguments for claims 4, 5, 21, and 22, treating claims 6–10 and 16–18 as standing or falling with claim 5.

Step One – Statutory Category

Claims 1–18 recite a method, claim 19 recites an apparatus, and claim 20 recites an article of manufacture. Accordingly, claims 1–20 are directed to one of the statutory classes of subject matter eligible for patenting under 35 U.S.C. §101.

Step 2A, Prong 1 – Recitation of Judicial Exception

Claim 1

For Prong 1, we determine whether claim 1 recites any judicial exception, including certain groupings of abstract ideas, namely, mathematical concepts, certain methods of organizing human activities such as a fundamental economic practice, or mental processes.

The Examiner determines that claim 1 is directed to an abstract idea, specifically, a certain method of organizing human activity. Final Act. 2. The Examiner states that the method involves gathering data related to the user (e.g., actual driving information, answers to psychological questions); evaluating the gathered data according to one or more rules/algorithms to obtain one or more parameters relating to the user (e.g., the psychological profile of the user); and providing relevant training to the user. *Id.* at 6. The Examiner also determines that the claimed method involves collecting information, analyzing the collected information, and generating/displaying results of the analysis. *Id.* at 7 (citing *Elec. Power Group v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016)).

We agree that claim 1 recites an abstract idea.

Certain Methods of Organizing Human Activity

Claim 1 is directed to “a computer-implemented driver training program method for improving driving skills and behaviors of a participant.” Appeal Br. 29 (Claims App.). Step A recites “obtaining . . . actual driving information of the participant . . . comprising at least some information selected from the group consisting of acceleration, braking, absolute speed, cornering forces, and car-to-car-in-front distance.” Appeal Br. 29 (Claims App.). Step B recites “obtaining . . . a psychological profile of the

participant . . . in accordance with a behavioral model based on a plurality of primary emotions and associated behaviors,” “the psychological profile comprising profile information selected from the group consisting of (1) identification of a primary psychological trait of the participant, (2) identification of a personality type of the participant, and (3) classifications of the participant as having one of a plurality of traits in each of a plurality of personality categories.” *Id.* In step B, “the psychological profile is based at least in part on the actual driving information of the participant.” *Id.* Step E recites that “the step of obtaining . . . the psychological profile comprises administering to the participant a psychological profiling test comprising a plurality of questions, and determining the psychological profile of the participant based on answers of the participant to the plurality of questions and the actual driving information.” *Id.* Step C recites “analyzing . . . the profile information in the psychological profile of the participant to select from a plurality of driver education curricula a selected driver education curriculum for the participant, wherein the selected driver education curriculum is selected based at least in part on the psychological profile, the plurality of driver education curricula comprising a plurality of courses . . . stored . . . together with information for matching the plurality of courses to different personality traits.” *Id.* at 29–30. Lastly, step D recites “delivering the selected driver education curriculum to the participant.” *Id.* at 30.

We agree that the limitations of claim 1 recite a method of organizing human activity. More particularly, claim 1 recites the concept of managing personal behavior or relationships or interactions between people. As recited in the preamble, the method is “for improving driving skills and behaviors of a participant” of a driver training program. Accordingly, the

purpose of performing the method is to change the participant's driving skills and behaviors, which involves managing such skills and behaviors. In the method, step A involves collecting the participant's actual driving information; steps B and E involve administering a psychological profiling test to the participant and obtaining a psychological profile comprising profile information based on the participant's answers to the test questions and the collected actual driving information; step C involves analyzing the profile information and selecting a driver education curriculum for the participant based on the psychological profile, and step D involves delivering the selected driver education curriculum to the participant.

Performing steps A–E results in the participant receiving a selected driver education program for the purpose of changing the participant's personal behavior by improving the participant's driving skills and behaviors. Providing the participant with the selected driver education program, in effect, provides teaching and rules or instructions to follow to the participant. Managing personal behavior, including teaching and following rules or instructions, falls within the abstract idea exception subgrouping of certain methods of organizing human activity. *See* Guidance at 52. Thus, under the broadest reasonable interpretation, claim 1 recites a method of organizing human activity, a judicial exception.

Mental Processes

Alternatively, or additionally, we construe claim 1 as reciting concepts that can be performed in the human mind or with pen and paper.⁵

⁵ A claim can recite more than one abstract idea. *See Genetic Techs. Ltd. v. Merial LLC*, 818 F.3d 1369, 1374–75, 1378 (Fed. Cir. 2016) (Claim to a method for analyzing DNA recited both a law of nature and a mental

In step A, the obtained actual driving information comprises “at least some information” “selected from the group consisting of acceleration, braking, absolute speed, cornering forces, and car-to-car-in-front distance.”

Obtaining the actual driving information involves an observation or evaluation of the participant’s actual driving, with the information representing the real-life driving habits of the participant. *See, e.g.*, Spec. 14, ll. 7–14. Under the broadest reasonable interpretation, step A encompasses performance in the human mind. These observations or evaluations are mental processes, and thus, step A recites an abstract idea.

Appellant contends that “collecting the actual driving information is not readily amendable to be carried out through mental steps or using pencil-and-paper.” Appeal Br. 20. However, step A does not require that any specific amount of information be selected from the “group.” We are not persuaded that a human would be unable to observe or evaluate, for example, a participant’s actual braking, absolute speed, or car-to-car-in front distance driving performance. Indeed, these behaviors could be readily observed or evaluated by another person riding in the participant’s car, such as a driving instructor.

Steps B and E involve administering a psychological profiling test comprising questions to the participant, receiving the participant’s answers, and obtaining a psychological profile of the participant comprising profile information from the participant’s answers and actual driving information. Steps B and E do not require administering any specific questions or number

process.); *Planet Bingo, LLC v. VKGS LLC*, 576 F. App’x 1005, 1007–08 (Fed. Cir. 2014) (Claims to methods and systems of managing a game of bingo recited mental processes and methods of organizing human activity.)

of questions to the participant. The questions could be administered to the participant by a person in writing, for example, and that person could receive and record the participant's answers. Also, obtaining the psychological profile by performing steps B and E involves an observation or evaluation of the participant's answers to the questions and actual driving information, that is, observing or evaluating information or data. Analyzing of data is a mental process of evaluating. *See In re BRCA1 & BRCA2-Based Heredity Cancer Test Patent Litig.*, 774 F.3d 755, 763 (Fed. Cir. 2014). Obtaining the profile information by performing steps B and E involves an observation, evaluation, judgment, or opinion. Under the broadest reasonable interpretation, steps B and E encompass performance of the steps in the human mind. These observations, evaluations, judgments, or opinions are mental processes. Accordingly, steps B and E recite an abstract idea.

Step C involves evaluating the profile information in the psychological profile of the participant and selecting a driver education curriculum for the participant based at least in part on the psychological profile. Appellant's Specification discloses, for example, that selecting an appropriate driver education curriculum from a plurality of driver education curricula can be based on weights applicable to different traits of the participant. *See, e.g.*, Spec. 15, ll. 7–21. This selecting can involve an observation, evaluation, judgment, or opinion. *See also, e.g., id.* at 17, ll. 14–16 (“For example, a participant with the Dominance trait, the Tailgating and Speeding topics *might be selected*, while the participants with Influence and Steadiness dominant traits *might be assigned* Hotel Security and Drinking and Driving topics.”) (emphasis added). Under the broadest reasonable interpretation, step C encompasses performance of the step in the

human mind. As concepts that can be performed in the human mind including observation, evaluation, judgment, and opinion fall within the abstract idea exception grouping of mental processes identified in the Guidance, each of steps A–C and E recites a mental process, which is a judicial exception.

Steps A–C and E are similar to processes that courts have determined are mental processes. *See, e.g., CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (determining that a claim whose “steps can all be performed in the human mind” is directed to an unpatentable mental process). Although the preamble of claim 1 recites a computer-implemented driver training program; step A recites “one or more sensors selected from the group consisting of acceleration sensor . . . and global positioning sensor” and “at least one vehicle computer”; steps B–E each recite “at least one first computer”; step C also recites “a database”; and step D also recites “a network,” the recitation of the sensors and computer components does not, by itself, establish that a claim does *not* recite mental steps. *See, e.g., Versata Dev. Grp. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (“Courts have examined claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person’s mind.”). Although steps A–E recite sensors and computer components, it does not appear that any of these steps could *not* be performed in the human mind or with pen and paper. That is, claim 1 recites a mental process despite requiring the use of electronic elements.

Furthermore, “performance of a claim limitation using generic computer components does not necessarily preclude the claim limitation

from being in the . . . certain methods of organizing human activity grouping, *Alice*, 573 U.S. at 219–20.” See Guidance at 52 n. 14 (emphasis omitted). Appellant’s Specification does not appear to disclose that the sensors are more than generic sensors. See, e.g., Spec. 14, ll. 7–11. We also note that the Specification describes that computer-based system 300 shown in Figure 3 can be implemented as “a general-purpose computer,” and may be “built on a personal computer platform.” See *id.* at 20, ll. 14–23, Fig. 3. Figure 3 depicts participants’ personal computers 380 connected to a communication network 390 coupled to a network interface 340. The Specification does not appear to disclose that the computers 380 or network 390 are more than generic components. See, e.g., *id.* at 20, l. 14–21. Nor does the Specification appear to disclose that the database 360 in Figure 3 is more than a generic component. See, e.g., *id.* at 21, ll. 5–9. The Examiner finds that claim 1 recites generic computer elements. Final Act. 7–8. We likewise construe steps A–E as encompassing performance of these steps using generic sensors and computer components. The recitation of electronic components in claim 1 does not preclude the steps from being in the certain methods of organizing human activity grouping or the mental processes grouping. We construe claim 1 as merely using these components as a tool to perform these concepts.

Additionally, a claim to “collecting information, analyzing it, and displaying certain results of the collection and analysis,” where the data analysis is recited at a high level of generality such that it could practically be performed in the human mind, recites a mental process. *Elec. Power Group*, 830 F.3d at 1356; *BRCA1 & BRCA2-Based Heredity Cancer Test Patent Litig.*, 774 F.3d at 763. In claim 1, steps B, C, and E involve

analyzing the collected information and additional information (i.e., answers to questions). Apart from the recitation of computer components, the data analysis is recited at a high level of generality, such that it could be performed in the human mind or with a pen and paper.

Appellant contends that the Examiner’s characterization of the purportedly abstract idea “entirely ignores the novelty and non-obviousness of the claimed method,” noting that the claims are not subject to any art rejections. Appeal Br. 16–17.

This contention is unpersuasive. The patent eligibility analysis is not an evaluation of novelty or non-obviousness. “A claim for a new abstract idea is still an abstract idea.” *Synopsys, Inc. v. Mentor Graphics, Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). Even assuming that the claimed method may be novel, “[t]he ‘novelty’ of . . . the . . . [claim] itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.” *See Diamond v. Diehr*, 450 U.S. 175, 188–189 (1981). A novel and non-obvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 90–91.

Appellant also contends that claim 1 calls for collecting two types of information, namely, actual driving information and information derived from administering a question and answer psychological profiling test. Appeal Br. 17. Appellant asserts that “the specific nature of the actual driving information” has not been considered in identifying “the supposedly abstract idea.” *Id.* at 17–18.

The actual driving information obtained in step A is addressed above in determining that claim 1 recites an abstract idea.

Therefore, we determine that claim 1 recites the abstract ideas of certain methods of organizing human activity and mental processes, which are judicial exceptions to patent-eligible subject matter.

Claims 4, 5, 21, and 22

The Examiner determines that dependent claims 4, 5, 21, and 22 are each “directed to additional generic computer element(s), and/or a further data manipulation process that a generic computer system serves to perform,” and, therefore, is also directed to an abstract idea. Final Act. 10.

Claim 4 depends from claim 1 and recites “analyzing by the at least one first computer the psychological profile of the participant to select from a plurality of electronic delivery methods a selected delivery method for delivery to the participant of the selected driver education curriculum” and “wherein the step of delivering is performed using the selected delivery method.” Appeal Br. 30 (Claims App.). Appellant’s argument does not persuade us that claim 4 does not recite the abstract ideas of certain methods of organizing human activity and mental processes by virtue of depending from claim 1. *Id.* at 23.

Claim 5 depends from claim 4 and recites the limitations “analyzing by the at least one first computer the psychological profile of the participant to select from a plurality of testing methods a selected testing method for testing comprehension and retention by the participant of material of the selected curriculum,” and “testing by the at least one first computer the comprehension and retention by the participant of the material of the selected driver education curriculum using the selected testing method.” *Id.* at 30 (Claims App.).

Although the “analyzing” and “testing” steps utilize “at least one first computer,” we construe these steps as encompassing the use of a generic computer. The recitation of a generic computer does not preclude these steps from being in the mental processes or certain methods of organizing human activity groupings, as discussed above. Appellant’s argument does not persuade us that claim 5 does not recite the abstract ideas of certain methods of organizing human activity and mental processes. *Id.* at 23.

Claim 21 depends ultimately from claim 1 and recites “wherein the step of obtaining by the at least one vehicle computer actual driving information of the participant comprises automatically obtaining the actual driving information using the global positioning system, the acceleration sensor, the braking sensor, the cornering sensor, and the proximity to other cars sensor.” *Id.* at 38 (Claims App.). These limitations pertain to how the actual driving information is obtained. Appellant’s argument does not persuade us that claim 21 does not recite the abstract idea of certain methods of organizing human activity. *Id.* at 24.

Lastly, claim 22 depends from claim 1 and further calls for “analyzing by the at least one first computer the psychological profile of the participant to select from a plurality of delivery methods a first delivery mode for delivery to the participant of the selected driver education curriculum; and step for verification of attendance of the participant,” “wherein the step of delivering is performed using the first delivery mode; and the first delivery mode is selected from the group consisting of mobile device video feed, mobile device audio presentation, and mobile device textual presentation.” *Id.* at 38 (Claims App.).

Although claim 22 recites “analyzing” “by the at least one first computer” and using a “mobile device,” we construe these limitations as encompassing the use of generic electronic components. As discussed for claim 1, the recitation of generic electronic components does not preclude these steps from being in the mental processes or certain methods of organizing human activity groupings. Appellant’s argument does not persuade us that claim 22 does not recite the abstract idea of certain methods of organizing human activity. *Id.* at 25.

We proceed to Prong 2 to determine whether claims 1, 4, 5, 21, and 22 are “directed to” the judicial exception.

Step 2A, Prong 2 – Practical Application of Judicial Exception

We next determine whether claims 1, 4, 5, 21, and 22, as a whole, integrate the recited judicial exception into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claims 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* Guidance at 54–55.

Claim 1

Appellant contends that, in considering the additional claim elements, the Examiner considered only the generic computer elements, and failed to consider the limitations related to obtaining and using the actual driving information. Appeal Br. 18.

As discussed above, claim 1 recites “one or more sensors selected from the group consisting of acceleration sensor . . . and global positioning sensor,” “at least one vehicle computer, “at least one first computer,” “a database,” and “a network.” We construe these limitations as the additional elements of claim 1, and as generic components. Appellant appears to concede that claim 1 recites “generic computer elements.” Appeal Br. 18. The remaining limitations of claim 1 (i.e., the limitations other than the additional elements), including the limitations related to obtaining and using the actual driving information, are addressed in Step 2A, Prong 1, and herein.

The Examiner determines that the additional claim elements do not provide any meaningful limitation to transform the abstract idea into a patent eligible application of the abstract idea such that the claim amounts to significantly more than the abstract idea itself. Final Act. 10.

We note that an additional element or elements that reflect(s) an improvement in the functioning of a computer, or an improvement to other technology or technical field, is indicative that the additional element(s) may have integrated the judicial exception into a practical application. *See* Guidance at 55. The Examiner determines that claim 1 is not directed to an improvement in computer-related technology. Final Act. 13.

Appellant contends that the Examiner “clearly considers any computer claim to be ineligible unless the claim recites a new arrangement of hardware elements — no matter the novelty of the process steps performed by the computer apparatus.” Reply Br. 11 (citing Ans. 22–23). Appellant asserts that “[n]ot only software claims can be patent-eligible, software claims can be non-abstract in the first instance, and therefore need not rely

for their eligibility on the presence of ‘significantly more’ than the abstract idea itself.” *Id.* at 12. Appellant contends that this position is supported by *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016).

Appellant’s reliance on *Enfish* is not persuasive. In *Enfish*, the court determined that the claims at issue were “directed to a specific improvement to the way computers operate, embodied in the self-referential table.” *Id.* at 1336. The court concluded that the claims were directed to an improvement of an existing technology, noting that the Specification “teaches that the self-referential table functions differently than conventional database structures” and “the claimed invention achieves other benefits over conventional databases, such as increased flexibility, faster search times, and smaller memory requirements.” *Id.* at 1337. “In sum, the self-referential table recited in the claims on appeal is a specific type of data structure designed to improve the way a computer stores and retrieves data in memory.” *Id.* at 1339.

In contrast to *Enfish*, Appellant does not show persuasively that the limitations of claim 1 provide a specific improvement in computer capabilities. For example, Appellant does not explain persuasively, or direct us to any evidence that shows, how the steps of “obtaining by at least one first computer a psychological profile of the participant,” “analyzing by the at least one first computer the profile information in the psychological profile of the participant to select . . . a selected driver education curriculum for the participant,” “delivering the selected driver education curriculum to the participant through a network, by the at least one first computer,” or “administering to the participant a psychological profiling test” improve the way the first computer operates. Unlike in *Enfish*, Appellant does not show

with evidence that the claimed database stores the plurality of courses faster or using smaller memory requirements. Although the recited sensors can obtain the actual driving information automatically, Appellant does not show persuasively that this improves the sensors' functionality or operation. Reply Br. 10. Thus, the reason that the court in *Enfish* decided to not proceed to step two of the *Alice* analysis is not present here.

Appellant also contends that its position is supported by *McRO Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). Reply Br. 13–15. In *McRO*, the court determined that the computer was not used to perform an existing human process, but rather, to perform a different process using a different set of rules from humans. *McRO*, 837 F.3d at 1314. The court determined that the incorporation of the rules in the method was not an automation of a human process, but instead, an improvement in the existing technology. *Id.* Appellant appears to contend that *McRO* supports the patent eligibility of claim 1 because “[i]n the present case, the record is also barren of any evidence of prior art teaching obtaining actual driving information and using the actual driving information to derive the very specific profiles recited in the claims.” Reply Br. 13.

Appellant's contention is unpersuasive. Step A does not require that any specific amount of information be selected from the “group.” Even though claim 1 involves “using the actual driving information to derive the [psychological profile]” (Reply Br. 13), claim 1 does not specify *how* “the psychological profile *is based at least in part on* the actual driving information of the participant,” as claimed (emphasis added). The language “based at least in part on” encompasses the psychological profile being based *only minimally* on the actual driving information. And further, claim

1 does not indicate how the obtained actual driving information is used to obtain the psychological profile.

Appellant also contends that the case *Thales Visionix Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017) supports Appellant’s position. Reply Br. 15. According to Appellant, “[i]n finding the claims patent-eligible, the Federal Circuit [in *Thales*] did not go beyond the first step of the patent eligibility inquiry, but determined that the claims were not directed to an abstract idea.” *Id.* at 16.

In *Thales*, the court determined that the claims at issue were directed to more than merely applying an abstract idea (using mathematical equations to determine the relative position of a moving object to a moving reference frame), but provided an improvement in existing technology by requiring a particular configuration of inertial sensors and a particular method of using the data from sensors to more accurately calculate the position and orientation of an object on a moving platform. *Thales*, 850 F.3d at 1348–49.

Here, claim 1 does not recite any particular configuration of sensors. In fact, step A encompasses logging the actual driving information with *only one* sensor of the group of sensors. Nor does step A require selecting any specific amount of information from the “group,” or specify how the obtained actual driving information is used to obtain the psychological profile. We are not persuaded that using the actual driving information obtained in step A, by basing the psychological profile “at least in part” on this information, provides an improvement in existing technology, as was determined for the invention in *Thales*. Thus, the reason that the court in *Thales* did not proceed to step two of the *Alice* analysis is missing here.

Furthermore, step A involves obtaining (gathering) actual driving information (data), and step D merely requires “delivering” the selected driver education curriculum to the participant by generic computer elements. As such, these steps recite insignificant extra-solution activity. *See* Guidance at 55 n.31. Accordingly, steps A and D do not integrate the judicial exception into a practical application.

Appellant further contends that “Claim 1 is directed to an application of rather specific psychological profiling to selection of a driver education curriculum, and the use of real-life driving information of the participant to identify the specific psychological profile.” Appeal Br. 20. Appellant contends that the “rather specific psychological profiling” does not tie up or preempt “*any* applications of psychological profiling to selection of other tasks,” “application of other methods of psychological profiling to selections of driver education curriculum,” or “*any* method that does not include collection of actual driving information, determination of a profile based on the actual driving information, and selection of a curriculum based on the profile.” *Id.* (emphasis added). Rather, Appellant contends, “Claim 1 as a whole adds meaningful limitations to the ideas of ‘organizing human activity,’ ‘managing training,’ and ‘collecting/analyzing information and displaying results’ so as not to preempt them.” *Id.* Appellant’s contention seems to be premised on complete lack of preemption. But even accepting this contention, “[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). Accordingly, Appellant’s lack of preemption argument is unpersuasive.

For these reasons, claim 1 does not recite an additional element, or a combination of additional elements, apart from the limitations reciting an abstract idea that applies, relies on, or uses 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. Thus, the judicial exception is not integrated into a practical application, and the claim is “directed to” the judicial exception. *See* Guidance at 54.

Claims 4, 5, 21, and 22

For claim 4, Appellant contends that the recitation of “electronic delivery” makes the limitations particular to solving a problem specific to electronic delivery systems, namely “appropriate choice of electronic delivery mode.” Appeal Br. 23. According to Appellant, this recitation in claim 4 is similar to the claims at issue in *DDR Holdings v. Hotels.com*, 773 F.3d 1245, 1255–59 (Fed. Cir. 2014), in which the court found claims directed to a networked implementation to be patent-eligible. *Id.*

These contentions are unpersuasive. Claim 4 does not recite how the delivery method is selected based on the psychological profile of the participant, much less how the selection is the “appropriate choice.” To the extent Appellant is contending that *DDR Holdings* stands for the broad proposition that “claims directed to a networked implementation” are patent eligible, we disagree. In *DDR Holdings*, the court determined, more specifically, that a claim to a system programmed to modify conventional Internet hyperlink protocol to dynamically produce a dual-source hybrid webpage is not directed to an abstract idea because the claim does not recite

an idea similar to those previously found by the courts to be abstract. *DDR Holdings*, 773 F.3d at 1258–59.

Appellant does not direct us to any disclosure that identifies an “appropriate choice of electronic delivery mode” as a technical problem and explains the details of a technical solution expressed in the claim, or identifies a technical improvement realized by the claim limitations over the prior art. *See* MPEP § 2106.05(a). Appellant’s unsupported attorney argument is not persuasive. *See Becton, Dickinson and Co. v. Tyco Healthcare Gp., LP*, 616 F.3d 1249, 1260 (Fed. Cir. 2010) (“Unsupported attorney argument . . . is an inadequate substitute for record evidence.”). Thus, we determine that the judicial exception is not integrated into a practical application, and claim 4 is “directed to” the judicial exception. *See* Guidance at 54.

As for claim 5, Appellant contends that the claim requires selecting a testing method based on the psychological profile and using the selected testing method, and that because these limitations require a computer, claim 5 is particular to solving a problem specific to computer-testing systems. Appeal Br. 23.

This contention essentially merely describes what claim 5 recites. Appellant does not direct us to any disclosure that identifies the purported specific problem as a technical problem and explains the details of a technical solution expressed in the claim, or identifies a technical improvement realized by the claim limitations over the prior art. *See* MPEP § 2106.05(a). Thus, we determine that the judicial exception is not integrated into a practical application, and claim 5 is “directed to” the judicial exception. *See* Guidance at 54.

For claim 21, Appellant asserts that the inclusion of “a selection mechanism for a delivery method, which operates based on the profile derived from actual driving information,” and “the GPS and other sensors for obtaining the actual driving information,” renders the claim patent-eligible. Appeal Br. 24.

To the extent “a selection mechanism for a delivery method” referred to by Appellant relates to the limitations of claim 4 discussed above, claim 4 does not integrate the judicial exception into a practical application. As for obtaining the actual driving information with “the GPS and other sensors,” this merely involves gathering data and insignificant extra-solution activity. *See* Guidance 55 n.31. Accordingly, claim 21 does not integrate the judicial exception into a practical application.

Lastly, for claim 22, Appellant contends that the claimed delivery mode is electronic and networked, and “[t]he additional recitation of electronic/networked delivery mode makes the limitations of the claim particular to solving a problem — appropriate choice of a networked delivery mode — specific to electronic networked systems.” Appeal Br. 25.

Appellant does not direct us to any disclosure that identifies “appropriate choice of a networked delivery mode” as a technical problem and explains the details of a technical solution expressed in claim 22, or identifies a technical improvement realized by the claim limitations over the prior art. *See* MPEP § 2106.05(a). Thus, we determine that the judicial exception is not integrated into a practical application, and claim 22 is “directed to” the judicial exception. *See* Guidance at 54.

We proceed to determine whether claims 1, 4, 5, 21, and 22 recite an “inventive concept.”

Step 2B – Inventive Concept

We next determine whether claims 1, 4, 5, 21, and 22 add a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field. *See* Guidance.

Claim 1

The Examiner concludes that claim 1 does not include any additional elements that are sufficient to amount to significantly more than the abstract idea itself. Final Act. 7–9. The Examiner determines that the additional elements are no more than generic computer elements that perform conventional computer functions. *Id.* at 8.

Appellant contends that “the psychological profile is obtained so that it is based at least in part on the actual driving information of the participant.” Appeal Br. 18 (emphasis omitted). According to Appellant, “that arrangement — analyzing the actual driving information to obtain the psychological profile and then selecting appropriate driving curriculum — is unconventional.” *Id.* at 18–19. Appellant also contends that “there is no indication that computer-implemented steps for obtaining a psychological profile using actual driving information and then selecting an appropriate curriculum based on the profile so selected are ‘well-understood, routine, conventional activities previously known to the industry.’” *Id.* at 19.

Appellant further contends that claim 1 recites an inventive concept, namely, the determination of a specific type of psychological profile based on actual driving information, and the selection of a curriculum based on the profile. *Id.* at 14.

We are unpersuaded. First, claim 1 does not recite any limitation that requires “analyzing” the actual driving information to obtain the psychological profile, or indicate how the obtained actual driving information is used to obtain the psychological profile.

Second, claim 1 recites “mental steps” or mental processes that can be performed in the human mind, and a certain method of organizing human activity. And, steps A and E recite insignificant extra-solution activity to the judicial exception. Apart from the judicial exception, claim 1 recites the use of generic electronic elements as additional elements. Appellant does not persuasively argue that the claim elements in addition to those that recite an abstract idea are sufficient to amount to significantly more than the abstract idea itself. To the extent Appellant is relying on the claim limitations that recite the abstract idea as providing significantly more, “[i]t has been clear since *Alice* that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018); *Synopsys*, 839 F.3d at 1151 (“[A] claim for a *new* abstract idea is still an abstract idea.”).

“If a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.” *BSG Tech LLC*, 899 F.3d. at 1290–91. We agree with the Examiner that the claimed method merely uses generic components as a tool to perform the abstract idea, which does not transform the claim into a patent-eligible application of the abstract idea. *Alice*, 573 U.S. at 212. Thus, we sustain the

rejection of claim 1 under 35 U.S.C. § 101. Claims 19 and 20 fall with claim 1.

Claims 4, 5, 21, and 22

Appellant's contentions that claim 4 is particular to solving a certain problem specific to electronic delivery systems and claim 5 is particular to solving a certain problem specific to computer-testing systems do not persuade us that either claim 4 or 5 provides an inventive concept. Appeal Br. 23.

As for claim 21, even if the inclusion of "a selection mechanism for a delivery method, which operates based on the profile derived from actual driving information," and "the GPS and other sensors for obtaining the actual driving information," is *novel*, we are not persuaded that claim 21 provides an inventive concept. Appeal Br. 24. "A claim for a new abstract idea is still an abstract idea." *Synopsys*, 839 F.3d at 1151.

Lastly, Appellant's contention that claim 22 is particular to solving a certain problem specific to electronic networked systems does not persuade us that the claim provides an inventive concept. Appeal Br. 25.

Thus, we sustain the rejection of claims 4, 5, 21, and 22 under 35 U.S.C. § 101. Claims 6–10 and 16–18 fall with claim 5.

DECISION SUMMARY

In summary:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 4-22	112, second paragraph	Indefiniteness		1, 4-22
19	112, first paragraph	Written description		19
1, 4-22	101	Eligibility	1, 4-22	
Overall Outcome			1, 4-22	

TIME PERIOD FOR RESPONSE

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