

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	Group Art Unit: 3715
Daniel P. Lanktee)	
)	Examiner: Bruk A. Gebremichael
Serial No.: 12/705,960)	
)	
Filed: February 15, 2010)	Notice of Appeal Filed On:
)	
For: DRIVER SAFETY PROGRAM BASED)	11/22/2017
ON BEHAVIORAL PROFILING)	
_____)	Confirmation No.: 9714

**Mail Stop Appeal Brief-Patent
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

**APPEAL BRIEF TO THE
PATENT TRIAL AND APPEAL BOARD**

This Appeal Brief is Applicant's reply to the rejections in a final Office action mailed on August 22, 2017, in the above-referenced patent application. A Notice of Appeal was filed on November 22, 2017. Applicant petitions for an extension of time of one month and the undersigned attorney authorizes charging of the one-month small entity time extension fee or deficiency in the fee to Deposit Account Number 50-3196. This Appeal Brief is therefore timely. If the undersigned attorney is mistaken regarding the required time extension, Applicant conditionally petitions for a necessary extension of time, and the undersigned attorney authorizes charging the required small entity time extension fee or deficiency in the fee for filing this Appeal Brief to the same Deposit Account.

If other fees are necessary for filing this Appeal Brief, the undersigned attorney also authorizes charging such fees as they apply to a small entity to the same Deposit Account.

I
REAL PARTY IN INTEREST

In this Appeal, the real party in interest is Gold Cross Benefits Corporation, of Boonton Township, New Jersey.

II
RELATED APPEALS AND INTERFERENCES

A previous Appeal was filed on or about April 15, 2016, and then withdrawn. Applicant-Appellant, Assignee, and the undersigned attorney do not know of any other prior or pending appeals, interferences, trials before the Board, or judicial proceedings that involve an application or patent owned by the Appellant or the Assignee, that may be related to, directly affect, be directly affected by, or have a bearing on the Board's decision in this Appeal.

III
STATUS OF CLAIMS

The status of claims in the present application is as follows:

Claims 1 and 4-22 are pending.

Claims 1 and 4-22 have been rejected.

Applicant appeals from the rejections of claims 1 and 4-22.

IV
STATUS OF AMENDMENTS

Applicant-Appellant has not filed any amendments in response to the Final Office Action.

V
SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1

Claim 1 is directed to a computer-implemented driver training program method for improving driving skills and behaviors of a participant. *E.g.*, Figure 1, method 100; Specification, the Title; *id.*, p. 1, lines 22-23; *id.*, p. 6, lines 2-8.

The method includes 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. *E.g.*, Specification, p. 11, lines 3-6; *id.*, p. 14, lines 7-19. The actual driving information is 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. *E.g.*, Specification, p. 11, lines 3-6; *id.*, p. 14, lines 7-19.

The method also includes 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 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. *E.g.*, Figure 1, steps 105-110; Specification, p. 6, lines 19-21; *id.*, p. 12, line 9, through p. 14, line 21.

The method additionally includes 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. *E.g.*, Figure 1, step 115; Specification, p. 15, line 7, through p. 17, line 8.

The method further includes delivering the selected driver education curriculum to the participant through a network, by the at least one first computer. *E.g.*, Figure 1, step 130; Figure 3, system 300 and network 390; Specification, p. 6, lines 23-24; *id.*, p. 11, line 21, through p. 12, line 8; *id.*, p. 20, line 14, through p. 21, line 12.

In the method, the step of obtaining by the at least one first computer the psychological profile includes 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. *E.g.*, Figure 1, steps 105-110; Specification, p. 12, line 9, through p. 15, line 6.

Independent Claim 19

Claim 19 is directed to an apparatus including a first computer system that includes 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; and a processor configured to cause the first computer system to: obtain actual driving patterns information of a participant, the actual driving patterns 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, wherein the actual driving information is logged by the one or more sensors. *E.g.*, Specification, p. 11, lines 3-6; *id.*, p. 14, lines 7-19.

The apparatus also includes a second computer system. *E.g.*, Figure 3, system 300. The second computer system is configured to administer to the participant a psychological profiling test comprising a plurality of questions. *E.g.*, Figure 1, step 105; Specification, p. 8, lines 4-5; *id.*, p. 12, lines 4-15.

The second computer system is also configured to determine a psychological profile of the participant based on answers of the participant to the plurality of questions and the actual driving patterns information of the participant. *E.g.*, Figure 1, steps 105 and 110; Specification, p. 8, lines 4-5; *id.*, p. 12, line 9, through p. 14, line 19.

The psychological profile is in accordance with a behavioral model based on a plurality of primary emotions and associated behaviors, the psychological profile comprising 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 patterns information of the participant. *E.g.*, Specification, p. 7, line 17; *id.*, p. 12, line 16, through p. 14, line 19.

The second computer system is also configured to analyze the 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. *E.g.*, Figure 1, step 115; Figure 2, Table 200; Specification, p. 8, lines 4-5; *id.*, p. 12, lines 4-8; *id.*, p. 15, line 7, through p. 17, line 8.

The second computer system is also configured to deliver the selected driver education curriculum to the participant. *E.g.*, Figure 1, step 130; Specification, p. 6, lines 23-24; *id.*, p. 8, lines 4-5; *id.*, p. 11, line 21, through p. 12, line 8.

Independent Claim 20

Claim 20 is directed to an article of manufacture comprising a machine-readable memory storing instructions, wherein, when the instructions are executed by one or more processors of one or more computer systems, the instructions configure the one or more processors to cause the one or more computer systems to perform a driver training program method for improving driving skills and behaviors of a participant. *E.g.*, p. 6, lines 2-8; *id.*, p. 8, lines 6-9; *id.*, p. 21, lines 10-20.

The method includes obtaining by the one or more computer systems 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. *E.g.*, Specification, p. 11, lines 3-6; *id.*, p. 14, lines 7-19.

The method also includes administering by the one or more computer systems to the participant a psychological profiling test comprising a plurality of questions. Figure 1, step 105; Specification, p. 8, lines 4-5; *id.*, p. 12, lines 9-15.

The method additionally includes determining by the one or more computer systems a psychological profile of the participant based on answers of the participant to the plurality of questions and on the actual driving information. *E.g.*, Figure 1, steps 105 and 110; Specification, p. 6, lines 19-27; p. 8, lines 4-5; *id.*, p. 12, line 9, through p. 14, line 19.

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. *E.g.*, Specification, p. 6, lines 19-21; *id.*, p. 12, line 9, through p. 14, line 21.

The method further includes analyzing by the one or more computer systems 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. *E.g.*, Figure 1, step 115; Figure 2, Table 200; Specification, p. 8, lines 4-5; *id.*, p. 12, lines 4-8; *id.*, p. 15, line 7, through p. 17, line 8.

The method further includes delivering by the one or more computer systems the selected driver education curriculum to the participant through a network. *E.g.*, Figure 1, step 130; Specification, p. 6, lines 23-24; *id.*, p. 8, lines 4-5; *id.*, p. 11, line 21, through p. 12, line 8.

Dependent Claim 22

Claim 22 depends directly from independent method claim 1. The method according to claim 22 further includes 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, wherein the step of delivering is performed using the first delivery mode, which is selected from the group consisting of mobile device video feed, mobile device audio presentation, and mobile device textual presentation. *E.g.*, Figure 1, step 120; Specification, p. 6, line 28, through p. 7, line 1; *id.*, p. 11, line 19, through p. 12, line 3.

The method further includes step for verification of attendance of the participant. *E.g.*, Figure 1, step 135; Specification, p. 18, line 14, through p. 19, line 2.

VI
SUMMARY OF REJECTIONS

The following are the rejections in the Final Office Action mailed on August 22, 2017 (“FOA” hereinafter):

1. Claims 1 and 4-22 were rejected under 35 U.S.C. § 101 as being directed to an abstract idea. FOA, p. 2.
2. Claims 19 and 20 were rejected under pre-AIA 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. FOA, p. 28.
3. Claims 1 and 4-22 were rejected under pre-AIA 35 U.S.C. § 112, second paragraph, as being indefinite. FOA, p. 30.

VII **ARGUMENT**

A. Patent Eligibility

The FOA rejected all claims as directed to an abstract idea. We are cautioned, however, to “tread carefully in scrutinizing such claims because at some level all inventions embody, use, reflect, rest upon, or apply a law of nature, natural phenomenon, or abstract idea.” 2014 Interim Guidelines on Subject Matter Eligibility, 79 Fed. Reg. 74618, 74622 (<http://www.gpo.gov/fdsys/pkg/FR-2015-07-30/pdf/2015-18628.pdf>) (“2015 Interim Guidelines” hereinafter). It is because “[a]n invention is not rendered ineligible for patent simply because it involves an abstract concept. Applications of such concepts ‘to a new and useful end,’ remain eligible for patent protection.” *Id.* n9 (citing *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. ___, 134 S. Ct. 2347, 2354 (2014) and quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Even claims that do recite an abstract idea, but are directed to inventions that clearly do not seek to tie up the abstract idea, may be patent-eligible. Interim Guidelines, 79 Fed. Reg. 74618, 74622-25.

The USPTO has provided guidance for proper formulation of patent eligibility rejections. See Memorandum to Patent Examining Corps on Formulating a Subject Matter Eligibility Rejection and Evaluating Applicant’s Response to a Subject Matter Eligibility Rejection (Dep. Comm. Bahr, May 4, 2016) (“2016 Mem.” hereinafter). According to this source, first “(Step 2A), the rejection should identify the abstract idea as it is recited (*i.e.*, set forth or described) in the claim and explain why it corresponds to a concept that the courts have identified as an abstract idea.” 2016 Mem., at 1. Second “(Step 2B), the rejection should identify the additional elements in the claim and explain why the elements taken individually and in combination do not amount to a claim as a whole that is significantly more than the exception identified in Step 2A.” *Id.* This methodology is simply a

restatement of the general framework delineated by the Supreme Court in *Alice* 134 S. Ct. at 2354-55 (2014). According to *Alice*, first determine whether the claim at issue is directed to an “abstract idea.” *Alice*, 134 S. Ct. at 2355. Second, if the claim involves an abstract idea, search for an “inventive concept” in the remainder of the claim, “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (quoting *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289, 1294 (2012)) (brackets in original). The presence of an “inventive concept” should generally overcome the concerns associated with patenting of abstract ideas.

Applicant respectfully submits that independent claim 1 of the present application recites an inventive concepts – including determination of a specific type of psychological profile based on actual driving information,¹ and selection of a curriculum based on the profile – and therefore is patent-eligible even if it involves an abstract idea. The rejection of the claim for ineligibility is a direct consequence of describing the claim at a level of abstraction that is too high, and the failure to consider all the limitations in the claim.

The FOA first describes the supposedly-abstract idea of the pending claims in these words:

The claimed invention is directed to non-statutory subject matter because the claim(s) as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea. The claim(s) are directed to the abstract idea of an idea of itself (or certain methods of organizing human activity). . . .

The current claimed invention is directed to a process for managing training.

FOA at 2-3 (italicization and underlining omitted). The FOA then proceeds to identify the elements of claim 1 that supposedly are directed to the abstract idea. FOA, at 3-4. According to this portion of

¹ Recall that the actual driving information is selected from acceleration, braking, absolute speed, cornering forces, and car-to-car-in-front distance in actual driving.

the FOA, practically all the elements of claim 1 are directed to the abstract idea. This is illustrated below, where claim 1 is set forth with underlining marking the portions that the FOA did not consider being part of the abstract idea:

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

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;

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;

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

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

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.

In sum, the FOA took claim 1, excised from the claim all hardware-related limitations, and labeled the rest as the abstract idea of “organizing human activity” or “managing training.” The FOA then performed the same analysis for independent claims 19 and 20. FOA, at 4-6. Following this analysis, the FOA asserted that the claim elements it had identified in the three independent claims

are directed to the abstract idea of an idea of itself (or certain methods of organizing human activity), wherein one or more data related to the user is gathered (e.g. actual driving information; answers to psychological questions, etc.), and the gathered data is evaluated according to one or more rules/algorithms to obtain one or more parameters relating to the user (e.g. obtaining the psychological profile of the user, wherein the physiological profile is in accordance with a behavioral model involving one or more attributes [such as, 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, etc.); and thereby one or more relevant trainings are provided to the user (e.g. selecting, from plurality of courses, a driver education curriculum pertinent to the user; and thereby delivering the selected curriculum to the user), etc.

FOA, at 6 (italics and underlining omitted, brackets in the original). The FOA concluded the Step 2A analysis by analogizing the claimed subject matter in the present application to “concepts that the courts have identified as abstract idea; *such as collecting information, analyzing it, and displaying certain results of the collection and analysis* (*Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed Cir. 2016)), etc.” FOA, at 7.

Note that the FOA analysis contains differing characterizations of the purportedly abstract idea. The FOA in various places speaks of (1) a method for organizing human activity, (2) a process for managing training, and (3) collecting information, analyzing it, and displaying results. But even the narrowest of the three characterizations is so broad that it does not provide meaningful guidance for the analysis of the specific claim limitations, and it entirely ignores the novelty and non-

obviousness² of the claimed method. As the Federal Circuit has counseled, “describing the claims at [too] high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). It can be easily observed that the method of claim 1 is much more specific than simply a method of “managing training” or collecting and analyzing information and displaying results, as the FOA asserted. At Step 2A, “it is not enough to merely identify a patent-ineligible concept underlying the claim; we must determine whether that patent-ineligible concept is what the claim is ‘directed to.’” *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1349 (Fed. Cir. 2017) (*quoting from Rapid Litigation Management Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1050 (Fed. Cir. 2016)). In the present case, the FOA plainly analyzed the claims from a level of abstraction that is too high. As will be discussed below, the FOA also refused to consider important claim limitations.

According to claim 1, two types of information are collected: (1) the actual driving information (such braking/acceleration/car-to-car distances logged by sensors) and (2) information derived from administering a question and answer psychological profiling test. Both types of information are analyzed to obtain a psychological profile of the participant. This is unlike the conventional psychological profiling testing where actual driving information is not considered. The selection of the driver training curriculum is then performed based on the profile, which is based in part on the actual driving information.

Whether or not the claim limitations dealing with the actual driving information should have been considered in Step 2A (identifying the supposedly abstract idea) or in Step 2B (identifying additional elements and considering them in combination) seems less important than considering these limitations at some point. As discussed above, the FOA clearly failed to consider the specific

² There are no pending art rejections.

nature of the actual driving information limitations in Step 2A, where the supposedly abstract idea was identified. In performing Step 2B (consideration of the additional claim elements), the FOA considered only the generic computer elements. See the paragraph spanning pages 7-8 of the FOA. The FOA did not consider the limitations related to obtaining and using the actual driver information. *Id.* In fact, the FOA expressly refused to consider the sensors that log the actual driving information, and the subsequent analysis of the actual driving information to obtain the psychological profile that is based on the actual driving information, or the selection of the curriculum based on the actual driving information. FOA, at 8-10. These pages of the FOA strongly suggest that the reason for ignoring the actual driving information-related limitations is that the “[t]he above ‘vehicle computer’ does not electronically communicate (transmit) the collected data to the ‘first computer’ (line 9 of claim 1) . . .” FOA, at 8 (bolding and underlining omitted).³ The FOA explained that

the “first computer” obtains the data relating to the “actual driving information” of the participant using a conventional means (e.g. a user entering the information using a keyboard, etc.). Thus, when the claim(s) is considered as a whole, the above implementation does not add meaningful limitation(s) to transform the claim(s) to “significantly more” than the abstract idea itself (i.e. the claimed invention is directed to a conventional and generic arrangement of the additional elements).

FOA, at 8-9 (italicization and underlining omitted).

It is true that claim 1 does not recite a specific method of electronic transmission of the actual driving information from the vehicle computer to the first computer. But regardless of how the information is transmitted, the psychological profile is obtained so that it is based at least in part on the actual driving information of the participant, which was obtained by the sensors of the vehicle computer. That arrangement – analyzing the actual driving information to obtain the psychological

³ The FOA made an analogous statement regarding independent claim 19. FOA, at 9.

profile and then selecting appropriate driving curriculum – is unconventional. On the present record, 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 activit[ies]’ previously known to the industry,” *Alice*, 134 S. Ct. at 2359 (quoting *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. ___, 132 S.Ct. 1289, 1294 (2012)), regardless of the way the information is transmitted from one computer to another.

When the claim limitations – all of them – are considered in combination, claim 1 recites “an invention that is not merely the ‘routine or conventional use’ of technology.” *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1302 (Fed. Cir. 2016) (quoting *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014)). Even if the claimed combination includes generic limitations (“conventional means” in the parlance of the FOA at 9), claim 1 is patent-eligible because “all limitations . . . provide an inventive concept” *Amdocs*, 841 F.3d at 1302; *see also Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (inventive concept found in a new arrangement of generic components).

The Interim Guidelines, the 2016 Mem., and other related materials advise to identify the abstract idea through comparison to concepts that have previously been identified as abstract ideas by the courts. *See, e.g.*, July 2015 Update to the Interim Guidelines, Appendix 1: Examples (“July 2015 Examples” hereinafter, <http://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf>), example 21, page 4; *id.* example 22, page 6; *see id.* example 23, pages 9-11; 2016 Mem. at 1. In the present application, the claims are not directed to a basic economic practice, a mathematical algorithm, or arrangement of data in a particular way for storage or transmission. To the extent that the ideas in the claims can be said to be amenable to implementation through mental

or pencil-and-paper steps, it is no more so than any other computer-implemented ideas; all computer programs involve step-by-step computational instructions that can be carried out on paper in the same way they are carried out in a computer's central processing unit and register locations. But collecting the actual driving information is not readily amenable to being carried out through mental steps or using pencil-and-paper.⁴

Moreover, claim 1 clearly does not seek to tie up the ideas of “organizing human activity” or “managing training.” The FOA is devoid of any preemption analysis of any of the claims. FOA at 21.⁵ 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. The very specific implementation of psychological profiling recited in the claim does not tie up any applications of psychological profiling to selection of other tasks. Further, the very specific implementation recited in the claim does not tie up application of other methods of psychological profiling to selections of driver education curriculum. Still further, the very specific implementation of claim 1 does not preempt 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. 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. Even the streamlined analysis of the claim indicates that it is patent-eligible. See, for example, July 2015

⁴ Same is true regarding electronic methods of delivery and testing, which are recited in some of the dependent claims discussed below.

⁵ “Applicant’s assumptions regarding preemption . . . are not sufficient to prove whether the current claims are eligible under 35 U.S.C.101,” FOA at 21, mistakenly requiring Applicant to prove patent-eligibility.

Examples, example 27, pages 21-22. (System Software – BIOS; claim that does not preempt a judicial exception is patent-eligible under the streamlined analysis.)

The opinion of the Federal Circuit in *Thales Visionix*, 850 F.3d 1343 (briefly mentioned above) is highly relevant and illuminating here. Claim 1 and claim 22 of the patent in *Thales Visionix* bear reproducing here in their entirety:

1. A system for tracking the motion of an object relative to a moving reference frame, comprising:

a first inertial sensor mounted on the tracked object;

a second inertial sensor mounted on the moving reference frame; and

an element adapted to receive signals from said first and second inertial sensors and configured to determine an orientation of the object relative to the moving reference frame based on the signals received from the first and second inertial sensors.

22. A method comprising determining an orientation of an object relative to a moving reference frame based on signals from two inertial sensors mounted respectively on the object and on the moving reference frame.

Thales Visionix, at 1345-46. There is hardly a need to boil down the subject matter of the claims in *Thales Visionix*: claim 1 recites a pair of inertial sensors mounted in different locations, and an element for processing information from the two sensors to determine orientation. *See Thales Visionix* at 8-9. The Federal Circuit found the claims patent-eligible. The Federal Circuit did not even proceed to step two of *Alice*. *Thales Visionix*, 850 F.3d at 1349 (“these claims are not directed to an abstract idea and thus the claims survive Alice step one.”). Here is the key verbiage of the opinion:

the claims are directed to systems and methods that use inertial sensors in a non-conventional manner to reduce errors in measuring the relative position and orientation of a moving object on a moving reference frame. At step one, it is not enough to merely identify a patent-ineligible concept underlying the claim; we must determine whether that patent-ineligible concept is what the claim is “directed to.”

Thales Visionix, 850 F.3d at 1349 (internal quote marks and citation omitted).

The similarity to the claims of Applicant here is unmistakable. The *Thales Visionix* sensors are inertial sensors similar to the sensors that collect actual driving information. The remainder of claim 1 of *Thales Visionix* is a processing element that clearly reads on a general purpose computer programmed in a particular way. As the Federal Circuit held, the *Thales Visionix* claims were “nearly indistinguishable from the claims at issue in *Diehr*.” *Thales Visionix*, 850 F.3d at 1348 (referring to *Diamond v. Diehr*, 450 U.S. 175 (1981), a foundational Supreme Court patent-eligibility case).

In rejecting claim 1 under the judicial exception to patentability of abstract ideas, the FOA failed – indeed, refused – to consider key limitations relating to obtaining and using actual driving information. That was an error. Consideration of all the claim limitations shows the inventive concept of the claim, and the claim’s eligibility under section 101.

Independent claim 19 is directed to computer apparatus⁶ including a first computer system and a second computer system. The first computer system has various sensors (acceleration sensor, braking sensor, cornering sensor, proximity sensor, GPS), to obtain the actual driving information of the participant. The second computer system administers a psychological profiling test, determines the psychological profile based at least in part on the actual driving information, selects a curriculum based on the psychological profile, and delivers the curriculum to the participant. The patent-eligibility rejection of this claim in the FOA suffers from the same shortcomings as the rejection of claim 1. Applicant respectfully submits that independent claim 1 is patent-eligible for the same reasons as are discussed above in relation to independent claim 1.

⁶ The description of independent claim 19 here paraphrases and simplifies the recitations in the claim, to facilitate discussion. Same applies to the discussion of other independent and dependent claims throughout this Appeal Brief.

Independent claim 20 is *In re Beauregard*-type claim reciting machine-executable instructions for obtaining actual driving information using various sensors (acceleration sensor, braking sensor, cornering sensor, proximity sensor, GPS), administering a psychological profiling test, determining the psychological profile based at least in part on the actual driving information, selecting a curriculum based on the psychological profile, and delivering the curriculum to the participant. The patent-eligibility rejection of independent claim 20 in the FOA suffers from the same shortcomings as the rejection of claim 1. Applicant respectfully submits that independent claim 20 is patent-eligible for the same reasons as are discussed above in relation to independent claim 1.

Claim 4 depends from claim 1 and additionally requires selection of an electronic delivery method based on the psychological profile. The additional recitation of electronic delivery makes the limitations of the claim particular to solving a problem – appropriate choice of electronic delivery mode – specific to electronic delivery systems. This is similar to the claims at issue in the *DDR Holdings* case, where the Court found claims directed to a networked implementation to be patent-eligible. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255-59 (Fed. Cir. 2014). Applicant respectfully submits that claim 4 is patent-eligible for these additional reasons.

Claim 5 depends from base claim 1 and intervening claim 4. This claim additionally requires selection of a testing method based on the psychological profile, and using the selected testing method by a computer. These limitations, requiring a computer, make the claim particular to solving a problem specific to computer-testing systems. The case for patent eligibility is even stronger here than in the case of the intervening claim 4, which is discussed in the immediately preceding paragraph. Applicant respectfully submits that claim 5 is patent-eligible for these additional reasons.

Dependent claim 21 requires that the step of obtaining the actual driving information of the participant be performed automatically using the global positioning system (GPS) and all the other recited sensors. The use of the GPS parallels example 4 (the *SiRF Technology* case) of the January 2015 Examples. In the *SiRF Technology* case, the Federal Circuit found claims directed to an abstract idea implemented with a GPS system to be patent eligible because the claims recited significantly more than the idea itself.

The *BASCOM* opinion already mentioned above is also pertinent here. In *BASCOM*, the Federal Circuit addressed the argument that the recitation of generic computer components in a claim rendered the claim as a whole not inventive and consequently not patent-eligible. The Federal Circuit instead found an “inventive concept” in the new and non-generic arrangement of the components. The novel component arrangement in combination with the claim’s failure to preempt the use of the idea of Internet filtering made the claim patent-eligible. The novel component arrangement – the inventive concept – in *BASCOM* was “the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user.” *BASCOM*, 827 F.3d at 1350. In claim 21 of the present application, the inclusion of (1) a selection mechanism for a delivery method, which operates based on the profile derived from actual driving information, and of (2) the GPS and other sensors for obtaining the actual driving information, is similarly novel and renders claim 21 patent-eligible.

Applicant respectfully submits that claim 21 is patent-eligible for these additional reasons.

Claim 22 depends from claim 1 and additionally requires selection of a delivery mode based on the psychological profile. The delivery mode is a mobile video feed, mobile device audio presentation, or mobile device textual presentation. The delivery mode is therefore both electronic and networked. The 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. Applicant respectfully submits that claim 22 is patent-eligible for these additional reasons.

B. Written Description

The explanation of the Written Description (35 U.S.C. §112, paragraph 1) rejection of claim 19 appears in its entirety in the two top paragraphs of page 29 of the FOA. It reads thus:

Claim 19 recites, “*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.*”

However, the original disclosure does not have any description relating to an apparatus that implements the features claimed according to current claim 19. Note that, according to the original disclosure, the computer system implemented to deliver the curriculum (driver education curriculum) to the participant is different (or separate) from the vehicle computer system (i.e. the “second computer system”, line 11 of claim 19), which collects data from one or more sensors on the vehicle (e.g. see the original specification: page 11, lines 3-6 and page 14).

FOA, p. 29. This is a somewhat cryptic rejection. But the italicization and underlining⁷ suggest that there is a problem in the description regarding two separate computer systems, one being a vehicle computer with various sensors, the other being the computer system that administers the profiling test, determines the profile, and selects and delivers the curriculum. The vehicle computer with the sensors is described in the Specification, e.g., on page 11, lines 3-6; and on page 14, lines 7-19. The

⁷ The italicization, underlining, and ellipses quoted as they appear in the original.

other (second) computer system is shown in Figure 1, system 300. See also the support for claim 19 set forth above in the SUMMARY OF CLAIMED SUBJECT MATTER section of this Appeal Brief.

The FOA gave two reasons for rejecting claim 20 under 35 U.S.C. §112, paragraph 1. The first reason is found in the last two paragraphs of page 29 of the FOA. It appears to be essentially the same as the rejection of claim 19, which is addressed in the immediately preceding paragraphs. See also support for claim 20 set forth above in the SUMMARY OF CLAIMED SUBJECT MATTER section of this Appeal Brief.

The FOA explains the second reason thus “The original disclosure also does not have any description relating to a computer system that implements plurality of processors (*e.g.* ‘one or more processors of one or more computer systems’).” FOA, p. 30, top paragraph. Applicant respectfully disagrees. See, for example, Specification, page 20, lines 18-21: “The system 300 can be implemented as a special purpose data processor, a general-purpose computer, a computer system, or a group of networked computers or computer systems configured to perform the steps of the driver education methods described in this document.” A “group of networked computers or computer systems” would necessarily include multiple processors. Additionally, the recitation of “one or more processors” is fully supported by a disclosure of one processor.

Applicant respectfully requests reversal of the Written Description rejections at least for the above reasons.

C. Definiteness

In rejecting independent claim 1 for indefiniteness, the FOA stated that “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’.” FOA, p.31, first full paragraph. The underlined portion⁸ suggests that the perceived problem with independent claim 1 is that the claim does not recite a connection between the two computer systems. The FOA gave essentially the same reason for rejecting independent claims 19 and 20 for lack of definiteness.

The definiteness requirement, 35 U.S.C. § 112 (second paragraph), “is an objective one because it is not dependent on the views of the inventor or any particular individual, but is evaluated in the context of whether the claim is definite – i.e., whether the scope of the claim is clear to a hypothetical person possessing the ordinary level of skill in the pertinent art.” MPEP § 2171. It is true that claim 1 does not recite an explicit connection between the two computer systems. But this simply means that there is no specific limitation regarding the connection. Surely, most elementary school pupils would know how to transfer data from one computer to another; even more so in the case of the hypothetical person possessing the ordinary skill in the art. Regarding the computer-to-computer interconnection, the claim is broad in this aspect, but its breadth does not make it indefinite. The claim does not specify the details of the connection between the “vehicle computer” and the “first computer” because the details of the connection are not essential to the operation of the claimed subject matter, and because the intent is to cover all embodiments that include all the other claim limitations.

⁸ Italicization and underlining in the original.

VIII
CONCLUSION

For the foregoing reasons, Applicant submits that all pending claims are patentable and requests reversal of the rejections.

Respectfully submitted,

Dated: January 25, 2018

/Anatoly S. Weiser/
Anatoly S. Weiser, Esq.
Reg. No. 43229
Customer No. 35070
3525 Del Mar Heights Road, #295
San Diego, CA 92130

IX
CLAIMS APPENDIX

Claims 1 and 4-22 listed below have been rejected and are involved in this Appeal.

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

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;

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;

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

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

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.

4. The computer-implemented driver training program method of claim 1, further comprising:

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;

wherein the step of delivering is performed using the selected delivery method.

5. The computer-implemented driver training program method of claim 4, further comprising:

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.

6. The computer-implemented driver training program method of claim 5, wherein the psychological profile is based on Dominance, Influence, Steadiness, and Consciousness traits, and the psychological profile comprises the identification of the primary psychological trait of the participant.

7. The computer-implemented driver training program method of claim 5, wherein the psychological profile is a COLORS profile, and the psychological profile comprises the identification of the primary psychological trait of the participant.

8. The computer-implemented driver training program method of claim 5, wherein the psychological profile identifies four personality types comprising amiable type, analytical type, driver type, and expressive type, and the psychological profile comprises the identification of the primary psychological trait of the participant.

9. The computer-implemented driver training program method of claim 5, wherein the psychological profile comprises a classification of the participant as having one of two possible traits in a first category, a classification of the participant as having one of two possible traits in a second category, a classification of the participant as having one of two possible traits in a third category, and a classification of the participant as having one of two possible traits in a fourth category, wherein the first category comprises an extroverted trait and an introverted trait, the second category comprises a sensing trait and an intuitive trait, the third category comprises a thinking trait and a feeling trait, and the fourth category comprises a judging trait and a perceiving trait.

10. The computer-implemented driver training program method of claim 5, wherein the step of delivering is performed by the at least one first computer through a wide-area network.

11. The computer-implemented driver training program method of claim 5, wherein the step of delivering is performed by the at least one first computer directly.

12. The computer-implemented driver training program method of claim 5, wherein the step of analyzing by the at least one first computer the profile information in the psychological profile of the participant to select from the plurality of driver education curricula comprises:

analyzing the psychological profile to select from a plurality of driver education topics one or more selected driver education topics; and

for each driver education topic from the one or more selected driver education topics, analyzing the psychological profile to select from a plurality of courses associated with said each driver education topic a selected course.

13. The computer-implemented driver training program method of claim 5, wherein the psychological profile comprises the primary psychological trait, and wherein the step of analyzing by the at least one first computer the profile information in the psychological profile of the participant to select from the plurality of driver education curricula comprises:

analyzing the psychological profile to select from a plurality of driver education topics one or more selected driver education topics; and

for each driver education topic from the one or more selected driver education topics, determining from a plurality of courses associated with said each driver education topic a selected

course, wherein the selected course corresponds uniquely to the selected driver education topic and to the primary psychological trait.

14. The computer-implemented driver training program method of claim 5, wherein the psychological profile comprises the primary psychological trait, and wherein the step of analyzing by the at least one first computer the profile information in the psychological profile of the participant to select from the plurality of driver education curricula comprises:

selecting from the database a course corresponding to the primary psychological trait.

15. The computer-implemented driver training program method of claim 5, further comprising:

supplementing the psychological profile with additional information before the steps of (1) analyzing by the at least one first computer the profile information in the psychological profile of the participant to select from the plurality of driver education curricula, (2) analyzing by the at least one first computer the psychological profile of the participant to select from the plurality of delivery methods, and (3) analyzing by the at least one first computer the psychological profile of the participant to select from the plurality of testing methods;

wherein the additional information includes at least some information selected from geographic location of the participant information, age of the participant, one or more results of vision screening of the participant, one or more results of hearing screening of the participant, information regarding existence of one or more disabilities of the participant, driving record of the participant, type of vehicle operated by the participant, drug use of the participant, one or more results of hazard recognition testing of the participant, information regarding driver training previously completed by the participant, and information from a manager observation drive report for the participant.

16. The computer-implemented driver training program method of claim 15, further comprising:

performing by the at least one first computer the hazard recognition testing of the participant to obtain the one or more results of the hazard recognition testing;

wherein:

the psychological profile is selected from the group consisting of (1) a profile based on Dominance, Influence, Steadiness, and Consciousness traits, (2) a COLORS profile, (3) a profile that identifies four personality types comprising an amiable type, an analytical type, a driver type, and an expressive type, and (4) a profile based on classification of a person as having one of two possible traits in a first category, a second category, a third category, and a fourth category, wherein the first category comprises an extroverted trait and an introverted trait, the second category comprises a sensing trait and an intuitive trait, the third category comprises a thinking trait and a feeling trait, and the fourth category comprises a judging trait and a perceiving trait; and

the additional information comprises the one or more results of the hazard recognition testing and the step of analyzing by the at least one first computer the psychological profile of the participant to select from the plurality of driver education curricula is based at least in part on the one or more results of the hazard recognition testing.

17. The computer-implemented driver training program method of claim 16, wherein the psychological profile comprises the primary psychological trait, and wherein the step of analyzing by the at least one first computer the profile information in the psychological profile of the participant to select from the plurality of driver education curricula comprises:

selecting from a plurality of driver education topics one or more selected driver education topics based on the one or more results of the hazard recognition testing; and

for each driver education topic from the one or more selected driver education topics, determining from a plurality of courses associated with said each driver education topic a selected course, wherein the selected course corresponds to the primary psychological trait and to said each driver education topic.

18. The computer-implemented driver training program method of claim 15, wherein

the psychological profile is selected from a group consisting of (1) a profile based on Dominance, Influence, Steadiness, and Consciousness traits, (2) a COLORS profile, (3) a profile that identifies four personality types comprising an amiable type, an analytical type, a driver type, and an expressive type, and (4) a profile based on classification of a person as having one of two possible traits in a first category, a second category, a third category, and a fourth category, wherein the first category comprises an extroverted trait and an introverted trait, the second category comprises a sensing trait and an intuitive trait, the third category comprises a thinking trait and a feeling trait, and the fourth category comprises a judging trait and a perceiving trait.

19. An apparatus comprising:

a first computer system comprising:

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, and

a processor configured to cause the first computer system to: obtain actual driving patterns information of a participant, the actual driving patterns 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, wherein the actual driving information is logged by the one or more sensors; and

a second computer system configured to:

administer to the participant a psychological profiling test comprising a plurality of questions,

determine a psychological profile of the participant based on answers of the participant to the plurality of questions and the actual driving patterns information 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 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 patterns information of the participant,

analyze the 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

deliver the selected driver education curriculum to the participant.

20. An article of manufacture comprising a machine-readable memory storing instructions, wherein, when the instructions are executed by one or more processors of one or more computer systems, the instructions configure the one or more processors to cause the one or more computer systems to perform a driver training program method for improving driving skills and behaviors of a participant, the method comprising steps of:

obtaining by the one or more computer systems 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;

administering by the one or more computer systems to the participant a psychological profiling test comprising a plurality of questions;

determining by the one or more computer systems a psychological profile of the participant based on answers of the participant to the plurality of questions and on the actual driving information, 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;

analyzing by the one or more computer systems 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

delivering by the one or more computer systems the selected driver education curriculum to the participant through a network.

21. The computer-implemented driver training program method of claim 18, 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.

22. The computer-implemented driver training program method of claim 1, further comprising:

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.

X
EVIDENCE APPENDIX

No evidence has been submitted in this case pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132. No evidence has been entered in the record by the Examiner and relied upon by Applicant-Appellant in this Appeal.

XI
RELATED PROCEEDINGS APPENDIX

A previous Appeal was filed on or about April 15, 2016, and then withdrawn. Applicant-Appellant, Assignee, and the undersigned attorney do not know of any other prior or pending appeals, interferences, trials before the Board, or judicial proceedings that involve an application or patent owned by the Appellant or the Assignee, that may be related to, directly affect, be directly affected by, or have a bearing on the Board's decision in this Appeal.