

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNITED SERVICES AUTOMOBILE ASSOCIATION,
Petitioner,

v.

AUTO TELEMATICS LTD.,
Patent Owner.

IPR2023-00858
Patent 10,198,879 B2

Before GEORGE R. HOSKINS, FRANCES L. IPPOLITO, and
SEAN P. O'HANLON, *Administrative Patent Judges*.

O'HANLON, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background

United Services Automobile Association (“Petitioner”) filed a Petition for *inter partes* review of claims 1–55 (“the challenged claims”) of U.S. Patent No. 10,198,879 B2 (Ex. 1001, “the ’879 patent”). Paper 3 (“Pet.”), 1. Auto Telematics Ltd. (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”).

Institution of an *inter partes* review is authorized by statute only when “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). We have authority, acting on the designation of the Director, to determine whether to institute an *inter partes* review under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). For the reasons set forth below, upon considering the Petition, Preliminary Response, and evidence of record, we conclude that the information presented in the Petition fails to establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of any of the challenged claims. Accordingly, we decline to institute *inter partes* review.

B. Real Parties in Interest

Petitioner identifies itself and Noblr Reciprocal Exchange as real parties in interest. Pet. 92; Paper 6, 1.

Patent Owner identifies itself as the sole real party in interest. Paper 4, 2.

C. Related Matters

The parties indicate that the '879 patent is the subject of the following district court proceeding:

Auto Telematics Ltd. v. United Services Automobile Ass 'n,
No. 6-22-cv-00474 (W.D. Tex. filed May 11, 2022).

Pet. 92; Paper 4, 2. We note that the '879 patent was also the subject of the following district court proceeding:

Auto Telematics Ltd. v. United Services Automobile Ass 'n,
No. 6-23-cv-00506 (W.D. Tex. filed July 17, 2023).

The parties note that Petitioner filed two additional petitions for *inter partes* review of the '879 patent in IPR2023-00857 and IPR2023-00859.

Pet. 92; Paper 4, 2. Petitioner filed a notice explaining the differences between the three petitions and ranking the petitions in the order that Petitioner wishes the Board to consider them. Paper 2.

Petitioner further notes other petitions for *inter partes* review it filed challenging related patents owned by Patent Owner. Pet. 92.

D. The Challenged Patent

The '879 patent discloses a mobile device adapted for installation to a vehicle and configured to log driving information associated with how the vehicle is driven. Ex. 1001, 1:22–27. The '879 patent acknowledges that data logging devices for road vehicles exist, but asserts that they are difficult and costly to install. *Id.* at 1:34–58. The '879 patent purports to improve upon known data logging devices by using the driver's mobile telecommunications device, such as a smart phone, loaded with an application to provide data logging functionality. *Id.* at 2:15–26.

The mobile device contains a sensor set, including an image capture module, an accelerometer, a GPS receiver, and an audio capture module, for sampling physical data. Ex. 1001, 15:47–53. The device uses data captured by the sensors to derive driving information that is used to determine the occurrence of a driving incident, such as a collision. *Id.* at 13:36–46. For example, the accelerometer provides information regarding the pitch, yaw, and roll of the vehicle, which data may be used to determine the g-forces to which the vehicle has been subjected. *Id.* at 15:63–16:2. This data is useful in determining the severity of a collision. *Id.* at 16:2–3. The data captured by the sensors can also be used to monitor the driver’s driving performance and determine a profile for the driver, which an insurance company may use to determine the driver’s risk assessment on which insurance premiums are based. *Id.* at 13:46–49, 22:9–20.

E. The Challenged Claims

Petitioner challenges claims 1–55 of the ’879 patent. Pet. 1–2. Claims 1, 21, 46, 51, 54, and 55 are independent. Claim 1 is illustrative of the challenged claims and is reproduced below with bracketing used by Petitioner.

1. [1.1] A mobile telecommunications device configured to log driving information associated with a vehicle, the mobile telecommunications device comprising:
 - [1.2] a sensor set comprising an image sensor, an audio sensor, an accelerometer or a positioning module, or a combination thereof;
 - [1.3] a user interface;
 - [1.4] a processor and;
 - [1.5] a memory;

[1.6] the mobile telecommunications device being configured to:

determine, based on at least one of the inputs received by the user interface and sensor data from the device's sensor set, a start of a driving period during which the mobile device is removably attached to the vehicle and the vehicle is in use;

[1.7] process the sensor data from the sensor set during the driving period to derive driving information associated with how the vehicle is driven; and

[1.8] store a selection of the driving information to the memory;

[1.9] wherein the driving information is derived without data from the vehicle sensors, and [1.10] the mobile telecommunications device is controlled by a downloaded application to control the mobile device to process the driving information to generate a driving score associated with a particular driver.

Ex. 1001, 31:43–32:2; Pet. xii.

F. Asserted Grounds of Unpatentability

The Petition relies on the following prior art references:

Name	Reference	Exhibit
Peng	US 2011/0307188 A1, published December 15, 2011	1005
Chatterjee	US 2010/0131691 A1, published May 27, 2010	1006
Balachandran	US 6,073,004, issued June 6, 2000	1007
Berkobin	US 2008/0255888 A1, published October 16, 2008	1010
Tamir	US 7,821,421 B2, issued October 26, 2010	1012
Katayama	EP 1 914 691 A1, published April 23, 2008	1024
Riemer	US 2010/0216509 A1, published August 26, 2010	1028

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–3, 5, 8, 16–23, 25, 28, 34, 37–54	103(a) ¹	Peng, Chatterjee
4, 24	103(a)	Peng, Chatterjee, Tamir
6, 9, 10, 14, 15, 26, 32, 33, 35, 36	103(a)	Peng, Chatterjee, Katayama
7, 27	103(a)	Peng, Chatterjee, Katayama, Balachandran
11–13, 29–31	103(a)	Peng, Chatterjee, Riemer
55	103(a)	Peng, Chatterjee, Berkobin

Pet. 1–2. Petitioner submits a declaration of William R. Michalson, Ph.D. (Ex. 1003) in support of its contentions. Patent Owner submits a declaration of Christopher K. Wilson (Ex. 2001) in support of its contentions.

II. ANALYSIS

A. Principles of Law

1. Burdens

Petitioner bears the burden of persuasion to prove unpatentability, by a preponderance of the evidence, of the claims challenged in the Petition. 35 U.S.C. § 316(e). This burden never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

¹ The application resulting in the ’879 patent claims priority to a date prior to when the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284 (2011), took effect. Thus, we refer to the pre-AIA version of section 103.

Petitioner also has the initial burden of production to show that an asserted reference qualifies as prior art under 35 U.S.C. § 102. *Dynamic Drinkware*, 800 F.3d at 1379; *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1576 (Fed. Cir. 1996) (citing *Innovative Scuba Concepts, Inc. v. Feder Indus., Inc.*, 26 F.3d 1112, 1115, (Fed. Cir. 1994)) (holding that the challenger “bore the burden of persuasion . . . on all issues relating to the status of [the asserted reference] as prior art”). Should Petitioner meet that initial burden, the burden of production shifts to the Patent Owner to argue or produce evidence that either the asserted reference does not render the challenged claims unpatentable, or the reference is not prior art. *Dynamic Drinkware*, 800 F.3d at 1379 (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008)).

2. Obviousness

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) when in evidence, any objective evidence of nonobviousness.² *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

² The parties have not directed us to any such objective evidence.

3. Priority

A U.S. patent application is entitled to assert priority to the filing date of an earlier-filed foreign application “for the same invention.” 35 U.S.C. § 119(a). This requires that the earlier-filed foreign application must, among other requirements, provide written description support under 35 U.S.C. § 112 for the claimed subject matter in the later-filed U.S. application. *See In re Ziegler*, 992 F.2d 1197, 1200 (Fed. Cir. 1993) (“A foreign patent application must meet the requirements of 35 U.S.C. § 112, first paragraph, in order for a later filed United States application to be entitled to the benefit of the foreign filing date under 35 U.S.C. § 119.”).

“To satisfy the written description requirement, a patent’s specification must ‘reasonably convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.’” *Novartis Pharms. Corp. v. Accord Healthcare, Inc.*, 38 F.4th 1013, 1016 (Fed. Cir. 2022) (alteration in original) (quoting *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc)). The written description “test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art.” *Ariad*, 598 F.3d at 1351. “For negative claim limitations, . . . there is adequate written description when, for example, ‘the specification describes a reason to exclude the relevant [element].’” *Novartis*, 38 F.4th at 1016 (second alteration in original) (quoting *Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012)).

B. Level of Ordinary Skill in the Art

The level of ordinary skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The person of ordinary skill in the art is a hypothetical person presumed to have known the relevant art at the time of the invention. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). In determining the level of ordinary skill in the art, we may consider certain factors, including: “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Best Med. Int’l, Inc. v. Elekta Inc.*, 46 F.4th 1346, 1353 (Fed. Cir. 2022) (quoting *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007)). “The patent’s purpose can also be informative.” *Id.*

Petitioner contends that a person having ordinary skill in the art at the time of the invention would have had “a Bachelor’s of Science Degree (or equivalent) in an academic area emphasizing electrical engineering, computer engineering, computer science, or a related technical field, and about 2-3 years of experience in the field of telematics systems (e.g., familiarity with control and diagnostic systems, navigation systems and wireless communication technology),” and that “[a] greater amount of education, i.e., a doctorate in an academic area emphasizing electrical engineering, computer engineering, computer science, or a related technical field, would compensate for fewer years of work experience.” Ex. 1003 ¶ 15; *see also* Pet. 13 n.6 (citing same).

Patent Owner does not contest Petitioner’s proposed definition or proffer a definition of its own. Prelim. Resp. 10.

Based on the arguments presented and the cited references, we find Petitioner’s definition of the level of ordinary skill reasonable and for purposes of this Decision, adopt it as our own.

C. Claim Construction

In an *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b), including construing the claims in accordance with the ordinary and customary meaning of such claims as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b). “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention” and “after reading the entire patent.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 1321 (Fed. Cir. 2005) (en banc). In addition to the specification and prosecution history, we also consider use of the terms in other claims and extrinsic evidence including expert and inventor testimony, dictionaries, and learned treatises, although extrinsic evidence is less significant than the intrinsic record. *Id.* at 1312–17. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* at 1315.

“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019)

(alteration in original) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Petitioner asserts that “no express constructions are required,” but argues that, “[b]ased on plain meaning, the recited ‘driving period’ references a time period ‘during which [a] mobile device is removably attached to the vehicle and the vehicle is in use.’” Pet. 3 (second alteration in original) (citing Ex. 1003 ¶¶ 94–96). According to Petitioner, “[t]hese attributes may be satisfied by a start of a data collection period, whether at the onset of vehicle driving, before, or thereafter.” *Id.* at 4 (citing Ex. 1003 ¶ 96).

Patent Owner “agrees that no constructions are required here.” Prelim. Resp. 11.

We address claim construction of some claim terms below. *See* § II.D.1 (deriving driving information without data from the vehicle sensors), § II.D.2 (generating a driving score). Otherwise, based on the arguments and evidence presented, we determine that no explicit construction of any claim term is needed for purposes of this Decision.

D. Peng’s Status as Prior Art

All of the unpatentability challenges asserted in the Petition rely on Peng. *See* Pet. 1–2. Peng is a U.S. patent application filed on June 29, 2011, and published on December 15, 2011. Ex. 1005, codes (22), (43). Thus, Peng’s prior art date is June 29, 2011. *Id.* at code (22); *see also* Pet. 2 (asserting Peng to be prior art under 35 U.S.C. § 102(e)).

The ’879 patent was filed on March 9, 2017, but claims priority to December 15, 2011, through a series of U.S. continuation patent applications

and a Patent Cooperation Treaty application, and to June 10, 2011, through Great Britain Patent Application No. 1109759.9 (Ex. 1505, “P3”)³ and three other Great Britain patent applications.⁴ Ex. 1001, codes (22), (30), (63). Thus, Peng is not prior art to the ’879 patent if the ’879 patent is entitled to the June 10, 2011, priority date.

In an effort to establish that Peng is prior art to the ’879 patent, Petitioner argues that P3 fails to provide written description support for two recitations common to all of the independent claims of the ’879 patent. *See* Pet. 5–8. We discuss each of Petitioner’s contentions below.

1. Deriving Driving Information Without Vehicle Sensor Data

Each of the independent claims recites that driving information is derived without data from vehicle sensors. Ex. 1001, 31:64–65, 33:63–64, 36:19–20, 37:13–14, 38:9–10, 38:39–40. Petitioner interprets this as a negative recitation and argues that it is unsupported by P3. Pet. 6, 8. Petitioner argues that the written description requirement “is height[en]ed for negatively-articulated limitations.” *Id.* at 7 (citing *Novartis*, 38 F.4th 1013). Petitioner further contends that “[t]he failure or omission of reference to a claimed object does not constitute disclosure of the negative limitation.” *Id.* (citing *Seabed Geosolutions (US) Inc. v. Magseis FF LLC*,

³ For convenience, we refer to this parent application as “P3,” the notation adopted by the parties.

⁴ Petitioner asserts that P3 and two of the other three Great Britain applications all fail to provide written description support for the ’879 patent claims. *See* Pet. 6–8. Our present Decision is limited to considering P3. We need not and therefore we do not address any of the other parent Great Britain applications.

8 F.4th 1285, 1288 (Fed. Cir. 2021); MPEP § 2173.05(i) (9th ed. Rev. 10.2019, June 2020)).⁵

Patent Owner agrees with Petitioner that the subject recitation should be treated as a negative limitation and argues that P3 describes the advantages of using mobile device data because it states that “it will be appreciated that a more sophisticated telephone (*e.g.*, a smart phone) has a *richer* sensor set with which to record and determine the occurrence of an incident.” Prelim. Resp. 13 n.6, 14 (quoting Ex. 1505, 5:20–21) (citing Ex. 1505, 5:14). Patent Owner argues that, because “[r]icher sensor set” is a comparative term” and P3 “does not expressly identify the sensor set which is less rich than the mobile device’s sensor set,” an ordinarily skilled artisan would have recognized “that the less rich sensor set would be that of the vehicle as the vehicle’s sensor set is the only other sensor set that reasonably could have been used as part of the disclosed invention.” *Id.* at 14 n.7 (citing Ex. 2001 ¶ 30). Patent Owner asserts P3 “makes clear that the sensor set on which the invention is relying to gather driving data is that of the smart-phone, and not sensors that are included in some other component with a ‘less rich’ sensor set (*i.e.*, vehicle sensors).” *Id.* at 14–15 (citing Ex. 2001 ¶ 30).

Patent Owner further argues that P3 discloses an application that uses sensor inputs that are “common to modern smart phones” and that “is

⁵ Petitioner also asserts that the ’879 patent specification lacks written description support under 35 U.S.C. § 112 for this limitation. *See* Pet. 8. The scope of unpatentability arguments in an *inter partes* review extends only to 35 U.S.C. §§ 102 and 103. *See* 35 U.S.C. § 311(b). Thus, we consider Petitioner’s written description arguments only in regard to the priority dispute, not to the ’879 patent specification.

arranged to record a number of *these sensor inputs* continuously.” Prelim. Resp. 15 (quoting Ex. 1505, 6:1–2) (citing Ex. 1505, 5:25–35; Ex. 2001 ¶ 31). Patent Owner asserts that the “references to the mobile phone sensor set make clear to a person of ordinary skill in the art that the application disclosed in P3 was designed to rely on inputs received from the sensor set of the mobile phone.” *Id.* Patent Owner argues that this disclosure coupled with P3’s “teaching that the smart-phone’s sensor set is ‘richer’ than any other sensor set that could be utilized . . . makes clear that . . . the claim limitation of deriving driving information without data from the ‘less rich’ vehicle sensors is clearly disclosed in P3.” *Id.* at 15–16 (citing Ex. 2001 ¶ 32).

Patent Owner further argues that P3 discloses the use of vehicle sensors (e.g., an odometer) that are “used to confirm that the application is accurately tracking the beginning and end of each driving period.” Prelim. Resp. 17 (citing Ex. 1505, 19:31–20:14 (“[M]easures may involve matching data recorded by the Witness application with that recorded independently by the vehicle. . . . If the distance recorded by the Witness application does not correlate with the difference between odometer readings, then the discrepancy will be flagged”); Ex. 2001 ¶ 33). Patent Owner contends that “the [’879 patent’s] inventors [similarly] contemplated the potential use of data from a vehicle sensor to supplement data derived from the mobile devices’ sensors.” *Id.* at 6 n.2 (citing Ex. 1001, 9:59–10:4).

Patent Owner also argues that, “[w]hile any negative limitation included in a claim must have a basis in the disclosure, that basis may be met, among other means, if alternative elements are positively recited in the specification and then explicitly excluded in the claims.” Prelim. Resp. 17

(citing *In re Johnson*, 558 F.2d 1008, 1018–19 (CCPA 1977); *Ex parte Grasselli*, 231 USPQ 393 (BPAI 1983), *aff’d mem.*, 738 F.2d 453 (Fed. Cir. 1984)). Patent Owner asserts that “the use of data from the mobile device’s sensor set, as well as from the vehicle’s sensor set, to derive driving information is disclosed as an alternative embodiment in P3.” *Id.* at 19. Thus, Patent Owner contends, “like in *Johnson*, the claims’ exclusion of data from one of those sensor sets, *i.e.*, the vehicle’s sensor set, is also disclosed and supported,” as P3 “necessarily described the use of data only from the mobile device’s sensors” after “[h]aving described the use of data from both vehicle and mobile device sensors.” *Id.* (citing Ex. 2001 ¶ 35).

As an initial matter, we note there is no dispute between the parties that the subject limitation is a negative limitation that excludes a particular feature. *See* Pet. 6; Prelim. Resp. 13 n.6. For the purposes of this Decision, we consider the parties’ arguments and evidence under this undisputed claim construction adopted by both Petitioner and Patent Owner.

Our reviewing court has explained that “[n]egative claim limitations are adequately supported when the specification describes a reason to exclude the relevant limitation.” *Santarus*, 694 F.3d at 1351. The Federal Circuit noted that such support need not rise to the level of disclaimer and that it is possible to support both the inclusion and exclusion of the same element. *Id.* In *Inphi Corp. v. Netlist, Inc.*, 805 F.3d 1350 (Fed. Cir. 2015), the Federal Circuit expanded on the discussion of negative limitations, noting that “properly described, alternative features are sufficient to satisfy the written description standard of § 112, paragraph 1 for negative claim limitations.” *Inphi*, 805 F.3d at 1357; *see also* MPEP § 2173.05(i) (9th ed., Rev. 07.2022, Feb. 2023) (stating that, “[i]f alternative elements are

positively recited in the specification, they may be explicitly excluded in the claims”).

We agree with Patent Owner that P3 provides support for the subject limitation to satisfy the written description requirement of 35 U.S.C. § 112. In particular, P3 discloses the use of the Witness application on a mobile device and the Witness application receives sensor data “typical for modern smart-phones.” Ex. 1505, 5:25–35. These sensor/data inputs include G-force/accelerometer, GPS module (speed, location, elevation, direction, etc.), 3D compass, and camera. *Id.*

Additionally, P3 discloses the processing of mobile phone sensor data to derive driving information such as driving speed and G-force. P3 discloses,

Another setting that can be controlled in the Settings Screen is the G-force threshold at which the Witness application will assume that a crash has taken place. It is expected that different vehicles and driving styles will need different G-force thresholds to be set to ensure a reasonable sensitivity to crash forces whilst also prevent crash detection false positives.

Ex. 1505, 14:19–23. Similarly, P3 discloses that “the application may be arranged to detect the vehicle speed, and at a particular speed, switch off the screen entirely. It should be understood that the device will continue to record video, telemetry and other information even when the screen is switched off.” *Id.* at 15:5–8.

Further, P3 discloses that vehicle odometers collect data independently from the mobile device sensors. Ex. 1505, 19:31–20:14. As such, this information can be used to confirm that the Witness application is accurately tracking the driving period. *See* Ex. 2001 ¶ 25 (“In P3, the

odometer, which itself is a vehicle sensor, is used to confirm that the application is accurately tracking the beginning and end of each driving period.”). P3 states,

[I]f a user could choose to disable the application when speeding then the effectiveness of the application would be reduced.

Accordingly, the application may include measures to guarantee that the application is enabled whenever a given insured vehicle is being driven.

Such measures may involve matching data recorded by the Witness application with that recorded independently by the vehicle. For example, the Witness application records the distance travelled during every journey. To ensure the summed distances of all journeys tracked by the Witness application tally with the total travelled distance of the vehicle, the user may be prompted to enter the odometer mileage periodically.

If the distance recorded by the Witness application does not correlate with the difference between odometer readings, then the discrepancy will be flagged to the user and/or the insurance company. A substantial discrepancy will typically indicate that the Witness application has not been monitoring all vehicle journeys and the appropriate action can be taken (e.g. the user can be warned, insurance premium may be raised etc[.]).

Ex. 1505, 19:31–20:14 (emphases added). In this instance, P3 discloses the mobile device sensors *may or may not* be used with the vehicle sensors (e.g., odometer) as an alternative embodiment to derive the driving information. Thus, read as a whole, P3 properly discloses alternative embodiments that provide a reason to exclude deriving driving information with the vehicle sensors, such as when the vehicle sensor data is not compared to check the accuracy of the Witness application. *See id.*

Based on, at least, this disclosure, we determine that P3 provides written description support for the subject limitation. “[N]egative claim

limitations are adequately supported when the specification describes a reason to exclude the relevant limitation.” *Inphi*, 805 F.3d at 1355 (quoting *Santarus*, 694 F.3d at 1351). “[P]roperly describing alternative features—without articulating advantages or disadvantages of each feature—can constitute a ‘reason to exclude.’” *Id.* Moreover, “[i]f alternative elements are positively recited in the specification, they may be explicitly excluded in the claims.” *Id.* at 1356; *see also Johnson*, 558 F.2d at 1019 (“The notion that one who fully discloses, and teaches those skilled in the art how to make and use, a genus and numerous species therewithin, has somehow failed to disclose, and teach those skilled in the art how to make and use, that genus minus two of those species, and has thus failed to satisfy the requirements of § 112, first paragraph, appears to result from a hypertechnical application of legalistic prose relating to that provision of the statute.”). And, contrary to Petitioner’s assertion (*see* Pet. 7), *Novartis* did not create a “height[en]ed” requirement for negative limitations. To the contrary, the court stated the opposite in *Norvatis*: “We do not today create a heightened standard for negative claim limitations.” *Novartis*, 38 F.4th at 1020.

We find that P3’s disclosure reasonably conveys to a person of ordinary skill in the art that the inventor had possession of the limitation in the independent claims that requires deriving driving information without data from vehicle sensors.

2. *Driving Score*

Each of the independent claims recites that the mobile telecommunications device generates a driving score associated with the driver. Ex. 1001, 31:65–32:2, 33:62, 36:28–32, 37:12, 38:10–14, 38:40–44.

Petitioner argues that “P3 does not support requiring the mobile telecommunications device to ‘generate a driving score associated with a particular driver’” because “the phrase and/or functionality of a driving score [are] not even mentioned.” Pet. 6 (citing Ex. 1003 ¶ 64); *see also id.* at 8 (citing Ex. 1003 ¶¶ 70–83) (“P3 also lack[s] support for ‘generat[ing] a driving score associated with a particular driver’” (second alteration in original)).

Patent Owner argues that P3 demonstrates possession of the claimed driving score. Prelim. Resp. 20–23. Patent Owner asserts that “[t]his driving score is a number associated with the risk profile of the driver” and provides “an assessment of what type of driver (or how safe) the individual is.” *Id.* at 20 (citing Ex. 1001, 10:10–17, 12:4–9). Patent Owner argues that P3 correspondingly describes an “assessment of a driver risk profile.” *Id.* at 21 (citing Ex. 1505, 6:20–36, 7:10–12, 8:24–35). In particular, according to Patent Owner, “P3 clearly discloses the concept of relying on driving information to determine whether a driver is ‘safe,’ *i.e.*, to generate a risk profile for a particular driver” and an ordinarily skilled artisan “would understand that generation of a risk profile is generation of a type of driving score.” *Id.* at 23 (citing Ex. 2001 ¶ 31).⁶

We mostly agree with Patent Owner. First, as a matter of claim construction, we agree with Patent Owner that the claimed “driving score” corresponds to an assessment of what type of driver an individual is. *See* Prelim. Resp. 20; Ex. 1001, 10:24–30 (stating “driving information can be

⁶ Although Patent Owner cites to “AT-2001 at ¶ 40” (Prelim. Resp. 23), we note that there are only thirty-five paragraphs in Exhibit 2001. It appears to us that the intended citation was to paragraph thirty-one.

matched to a particular driver” which is “particularly useful when assessing a risk profile of said driver” and “[t]he driving information may comprise the driving score”), 12:21–26 (stating “[t]he driving score may be used to determine a risk profile for at least one of the vehicle and driver”).

However, to the extent that Patent Owner would limit a driving score to a “number” (Prelim Resp. 20), we disagree. The ’879 patent specification does not support such a construction. *See* Ex. 1001, 10:24–30, 12:21–26.

Next, we find that P3 discloses that “[t]he Witness application is arranged to record a number of . . . sensor inputs continuously,” in order to track various driving conditions such as: “change in pitch + sharp deceleration (braking heavily / impact)”; “change in yaw at a given speed (swerve/skid)”; “roll (vehicle overturned)”; tire squeals; crumple zones being crushed; airbags deploying; breaking glass; impacts to the vehicle chassis; and passengers shouting or screaming. Ex. 1505, 5:25–6:3, 6:20–36. In one embodiment, this data “is used to determine the occurrence of ‘an event of significance’ such as a vehicle crash.” *Id.* at 6:21–22.

In a further embodiment, the same data “can be used for other purposes” such as “for *aiding the insurance company [to] assess the risk profile of the driver* (and potentially modify an insurance premium accordingly)” using “[v]arious parameters.” Ex. 1505, 8:23–27 (emphasis added). In one example, the data can be used to alter the driver’s risk profile in a favorable way, to reflect safe driving characteristics, as P3 states:

If the Witness application incorrectly detects an incident of significance, and receives feedback that the vehicle was not in accident (but was in a near miss)—*this could alter the risk profile of the driver*. For example—if this happens frequently, but no accident occurs over a given period, this could be an

indicator that the driver is good at reacting to potential hazards.

Id. at 8:29–33 (emphases added). In other examples, the data can be used to alter the driver’s risk profile in an unfavorable way, to reflect unsafe driving characteristics. *See id.* at 8:34–35 (indicating the data may be used to determine “[e]rratic driving (e.g. jerky steering or braking detected by G-force sensor” and “[d]riving faster than the speed limit allocated to a given road (detected by GPS)”).

We find P3’s foregoing disclosures provide written description support for the subject limitation. In particular, P3’s tracking of various driving “parameters” such as the frequency of near misses, erratic driving, and driving over the speed limit and using this information to determine the driver’s “risk profile” (Ex. 1505, 8:23–35) corresponds to the claimed “driving score.”

We find that P3’s disclosure reasonably conveys to a person of ordinary skill in the art that the inventor had possession of the limitation in the independent claims that requires generating a driving score associated with the driver.

3. Conclusion

Petitioner does not argue that P3 does not disclose any of the remaining limitations. As such, the Petition fails to establish that P3 does not provide sufficient written description support for the challenged claims. Thus, the Petition fails to satisfy Petitioner’s burden to establish that Peng qualifies as prior art. Petitioner’s failure is fatal to all of the Petition’s challenges, each of which relies on Peng as prior art.

III. CONCLUSION

For the foregoing reasons, we determine that Petitioner has not demonstrated a reasonable likelihood of showing that Peng qualifies as prior art to the '879 patent. Therefore, we determine that Petitioner has failed to demonstrate a reasonable likelihood of prevailing on any of its challenges to claims 1–55 of the '879 patent. We therefore *deny* institution of the petitioned *inter partes* review.

IV. ORDER

In consideration of the foregoing, it is hereby ordered that the Petition is *denied*, and no trial is instituted.

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