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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* BRADLY JAY BILLMAN  
and EWAN RICHARD GRANTHAM JR.

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Appeal 2017-011683  
Application 13/768,692  
Technology Center 3600

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Before HUNG H. BUI, MICHAEL M. BARRY, and  
PHILLIP A. BENNETT, *Administrative Patent Judges*.

BENNETT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–13 and 15–20. Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> We use the word “Appellant” to refer to “Applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as United Services Automobile Association (USAA). App. Br. 1.

### CLAIMED SUBJECT MATTER

The claims are directed to systems and methods for determining “an insurance premium for a driverless vehicle” by determining the relative amount of time an occupant is in active control of the vehicle as compared to the amount of time the vehicle is operated in an autonomous mode.

Abstract. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method of calculating an insurance premium for a driverless vehicle, the method comprising:
  - detecting a first occupant of the driverless vehicle;
  - establishing data communication, utilizing a processor based machine, between an insurance premium calculator and an onboard vehicle system of the driverless vehicle, the insurance premium calculator hosted by an insurance company and remote to the onboard vehicle system;
  - causing, by the processor based machine, the onboard vehicle system to provide at least one signal indicative of a first amount of time the first occupant is in active control of the driverless vehicle to the insurance premium calculator during a period;
  - causing, by the processor based machine, the onboard vehicle system to provide at least one signal indicative of a second amount of time that the vehicle is operated without a driver to the insurance premium calculator during the period; and
  - modifying an insurance rate for a subsequent period based on the first amount of time and the second amount of time using the insurance premium calculator;
  - the first amount of time the first occupant is in active control of the driverless vehicle; and
  - the second amount of time that the vehicle is operated without a driver.

App. Br. 20 (Claims Appendix).

## REJECTION

Claims 1–13 and 15–20 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Collopy (US 2010/0131304 A1, published May 27, 2010), Zhu (US 2012/0083960 A1, published Apr. 5, 2012), and Collins (US 2012/0072244 A1, published Mar. 22, 2012). Final Act. 2–6.

## ANALYSIS

The Examiner rejects claim 1 as obvious over Collopy, Zhu, and Collings. The Examiner relies primarily on Collopy, finding that it teaches “providing an on-board monitoring system to gather real-time driver’s driving information which is transferred to an insurance company so as to modify the driver’s insurance data or premium based on an analysis of the monitored information” as well as “monitoring . . . and modifying an insurance rate for a subsequent period based on the amount of time the first occupant is in active control of the vehicle.” Final Act. 3 (citing Collopy ¶¶ 35–39, Abstract). The Examiner acknowledges that Collopy does not teach the use of its system in connection with driverless vehicles, and turns to Zhu, finding that Zhu teaches “allowing a user to drive an autonomous vehicle or to allow control of an autonomous or driverless vehicle” and that in doing so Zhu teaches the limitations of:

causing . . . the onboard vehicle system to provide at least one signal indicative of monitoring a first amount of time a first occupant is in active control of the driverless vehicle during a period

causing . . . the onboard vehicle system to provide at least one signal indicative of monitoring a second amount of time that the vehicle is operated without a driver during the period.

Final Act. 3–4 (citing Zhu ¶¶ 27–29, 65, 66, 73, Abstract). The Examiner explains that Zhu teaches “[a] driving session would include a timestamp noting the duration of the driving session and therefore, Zhu clearly teaches causing the onboard vehicle system to provide at least one signal indicative of an amount of time that the vehicle is operated without a driver.” Ans. 9–10. The Examiner further acknowledges that Collopy and Zhu do not teach “features of transmitting the vehicle data to an insurance premium calculator.” Final Act. 4. The Examiner introduces Collins, finding that it teaches “allowing a driver of a vehicle to provide selected driving parameters to be transmitted to a remote insurance calculator so as to modify a driver’s insurance rate or premium.” Final Act. 4 (citing Collings ¶¶ 40, 45–46, 65–67, Abstract).

Appellant argues against the rejection of claim 1.<sup>2</sup> App. Br. 12–16; Reply Br. 2–5. Appellant argues that the cited combination does not teach or suggest the “causing . . . the onboard vehicle system” limitations of claim 1. More specifically, Appellant asserts “[n]o reference teaches to identify an amount of time an autonomous vehicle is manually operated in relation to the time during which it is operated in a driverless mode.” Reply Br. 2. Appellant argues that (1) Collopy does not concern driverless vehicles, and (2) Zhu does not address Collopy’s deficiencies because it “has nothing to do with identifying a proportion of time that a driverless vehicle is operated in a driverless mode in proportion to a manually-driven mode.”

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<sup>2</sup> Appellant argues the independent claims as a group. *See* App. Br. 15 (“While language from claims 1 and 8 is excerpted above, Appellant[] respectfully submit[s] the reasoning to also distinguish *mutatis mutandis*, independent claim 15.”).

Reply Br. 3. Appellant asserts that the Examiner’s finding that “[Zhu’s] driving session *would include* a time stamp noting the duration of the driving session and therefore, Zhu clearly teaches causing the onboard vehicle system to provide at least one signal indicative of an amount of time that the vehicle is operated without a driver,” is not supported because it relies on “either Examiner knowledge or unfounded assumptions.” Reply Br. 3–4. We agree with Appellant that the Examiner has erred.

The Examiner relies on Zhu as teaching the limitation “causing . . . the onboard vehicle system to provide at least one signal indicative of monitoring a second amount of time that the vehicle is operated without a driver during the period.” Final Act. 4. However, we agree with Appellant that the cited portions of Zhu do not supply any such teaching. Zhu relates to operation of autonomous vehicles and “[s]pecifically, the features described may be used . . . to improve the safety, use, driver experience, and performance of these vehicles.” Zhu, Abstract. The Examiner finds that a driving session described by Zhu “would include a timestamp noting the duration of the driving session.” Ans. 9. However, the Examiner does not cite any portion of Zhu in support of this finding. We observe no discussion in Zhu of measuring the duration of a driving sessions—whether in an autonomous mode or a manual mode.

Appellant’s invention, as recited in claim 1, requires that the amount of time that a driverless vehicle is operated with a driver (in a manual mode) and without a driver (in a self-driving mode) be measured and used to determine an insurance rate. App. Br. 20 (Claims Appendix). Nothing in Zhu or the other cited references teaches or suggests measuring the amount of time of operation in these two operating modes. Although Zhu discloses

operating autonomous vehicles generally, there is no teaching or suggestion that the use of different driving modes impacts risk in such a way as to call for adjustments to insurance premiums. Accordingly, we are persuaded by Appellant’s argument that the Examiner has erred, and we do not sustain the rejection claim 1 and of independent claims 8 and 15 which recite similar limitations, and the remaining claims which depend therefrom.

### DECISION<sup>3</sup>

We reverse the rejection of claims 1–13 and 15–20 under 35 U.S.C. § 103(a).

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<sup>3</sup> In the event of further prosecution of this application, this panel suggests that the Examiner consider rejecting claims 1–13 and 15–20 under 35 U.S.C. § 101 as being directed to non-statutory subject matter, i.e., an abstract idea, in light of the Office’s *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50–57 (Jan. 7, 2019) (“2019 Revised Guidance”) interpreting the two-step framework set out in the Supreme Court decision in *Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347 (2014) “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. For example, claim 1 recites nothing more than collecting data regarding whether a vehicle (regardless of whether such a vehicle is driverless or not) is driven by a driver and then using that information to determine an insurance premium, which is a known business activity and a fundamental economic practice in our system of commerce—one of the certain methods of organizing human activity identified in the 2019 Revised Guidance and, thus, an abstract idea. *See* 2019 Revised Guidance (*Revised Step 2A, Prong One*), 84 Fed. Reg. at 52 (describing an abstract idea category of “[c]ertain methods of organizing human activity—fundamental economic principles or practices . . . commercial or legal interactions (including . . . advertising, marketing or sales activities or behaviors; business relations)”). We also discern no additional elements (or combination of elements) recited in Appellant’s claim 1 that integrate the judicial exception into a practical application. *See* 2019 Revised Guidance, 84 Fed. Reg. at 54–55.

Appeal 2017-011683  
Application 13/768,692

DECISION SUMMARY

| <b>Claims Rejected</b> | <b>Basis</b> | <b>Affirmed</b> | <b>Reversed</b> |
|------------------------|--------------|-----------------|-----------------|
| 1-13, 15-20            | § 103(a)     | None            | 1-13, 15-20     |

REVERSED