

New Study on Fully Automated, Self-Driving Vehicles in Canada: There's a Problematic Knowledge Gap about Automated Vehicles

Mobility Confidence Index Study in Collaboration with PAVE Canada and MIT Advanced Vehicle Technology (AVT) Consortium

TORONTO: 15 June 2022 – Consumer readiness for fully automated, self-driving vehicles in Canada is low, and there are considerable deficiencies in consumer understanding of automated vehicles (AVs) according to the findings of a new study conducted by J.D. Power, Partners for Automated Vehicle Education-Canada, and MIT's AVT Consortium. The study was supported by funding from Transport Canada through an Enhanced Road Safety Transfer Payment Program grant awarded to PAVE Canada.

The J.D. Power 2022 Canada Mobility Confidence Index (MCI) Study,SM released today, finds that 67% of consumers in Canada possess inaccurate knowledge of fully automated, self-driving vehicles—a problem not unique to Canada. More than half (59%) of respondents classify driver-assist technologies that are available today as being fully automated, self-driving technologies—an indication that consumers are unaware they are overestimating their AV knowledge.

Technology failures and cyber security top the list of AV concerns as 48% of consumers cite the possibility of AVs being hacked as a disadvantage. This concern is cited equally across generations. There is a desire for greater knowledge, as 77% of consumers say they need more information on what is being done to prevent hacking.

“Successful adoption of AV technologies may be best facilitated when consumers are adequately educated and have a sound understanding of the technologies’ capabilities,” said **Lisa Boor, senior manager of auto benchmarking and mobility development at J.D. Power**. “Consumers are receptive to learning about technology but managing misconceptions regarding the benefits AVs offer is imperative. Industry stakeholders must work together to ensure consistent consumer-facing terminology is used and that there is continuity in AV education across learning and information sources.”

The study incorporates a series of questions to identify information sources consumers have used to learn about the advanced driver assistance systems (ADAS) on their current vehicle and information sources they prefer to use to learn about automated vehicles in the future. The most utilized information sources consumers say they use to learn about ADAS features are the owner’s manual (32%), dealer explanation (30%) and family/friends (25%). Traditional methods relying on the dealer relationship and static written materials have proven to be inadequate for educating consumers about the complexity of ADAS and AV technologies. There is an opportunity for more effective training methods which will create a solid foundation for learning and aid in the acceptance of AV technology.

The study finds a notable shift in consumer preferences for information sources to learn about fully automated, self-driving vehicles. The most preferred information sources are online search (50%), vehicle manufacturer/developer websites (50%), online videos (36%) and industry/academic experts (34%). The value of industry/academic experts is recognized as more preferred than family/friends and social media sources.

“This study paints a broader picture of Canadians’ current level of understanding about AVs, which also helps us understand the knowledge gaps,” said **Tara Andringa, executive director of PAVE**. “Canadians

are curious about AV technology on the roads today and what's coming in the future, and it's our mission at PAVE Canada to help the public better understand the full scope and potential of driverless technology.”

Following are key findings from the 2022 study:

- **Consumer readiness for fully automated, self-driving vehicles is low:** The index score for consumer AV readiness is 37 (on a 100-point scale). Consumers in Canada show low levels of readiness on all metrics and have the lowest comfort riding in a fully automated, self-driving vehicle and the lowest likelihood of purchasing one. Consumers are most comfortable with non-personal use for transporting goods or transporting those unable or unwilling to drive due to age or injury as opposed to applications that involve themselves.
- **Consumers are receptive to AV training:** More than half (55%) of consumers are willing to complete training to operate an AV and for those who say they know “a great deal” about AVs, the percentage increases to 87%. There is an expectation among 71% of consumers that additional training would be required to own and operate a fully automated, self-driving vehicle.
- **Moving the needle on consumer comfort with AVs:** To feel comfortable with automated vehicles, 79% of consumers want more information on how the vehicle technology meets government standards. Consumers are willing to seek information on provincial websites.
- **Usage of ADAS features increases comfort with automation—but doesn't aid accuracy of AV understanding:** Just 25% of respondents say they are comfortable with partial or full self-driving automation compared with 37% of those who frequently use active driving assistance on their current vehicle. However, frequent use of active driving assistance does not translate to a higher level of accuracy when defining a fully automated self-driving vehicle. Only 33% of those who are comfortable with driving automation can accurately define a fully automated self-driving vehicle vs. 30% among those who frequently use active driving assistance.

“A misalignment of consumer expectations around what automated driving is and is not continues to be a market challenge,” said **Bryan Reimer, Ph.D., research scientist in the MIT Center for Transportation and Logistics AgeLab and a founder of MIT's AVT consortium.** “As manufacturers and other technology pioneers move to accelerate deployment of assisted and automated driving, education on what systems can and cannot do will become an increasingly complex hurdle for safe adoption. The sooner public-private stakeholders come together to embrace these challenges, adopt user-centric communication standards, and promote a unified viewpoint, the greater the opportunity will be to accelerate consumer satisfaction and safe technology utilization in this evolving sector.”

The J.D. Power 2022 Canada Mobility Confidence Index (MCI) Study is based on responses from 4,000 vehicle owners in Canada age 18 and older who completed a 15-minute online survey. The study results were balanced to basic census demographics to be nationally representative. The study was fielded in April-May 2022. The study index is based on six unique attributes of consumer comfort with fully automated, self-driving vehicles. The comprehensive metric measures consumer readiness for AV technology in several categories: personal vehicles; commercial vehicles; public transit; riding if unable to drive due to age or injury; sharing the road with other AVs; and consumer purchase intent.

About J.D. Power

J.D. Power is a global leader in consumer insights, advisory services and data and analytics. A pioneer in the use of big data, artificial intelligence (AI) and algorithmic modeling capabilities to understand consumer behavior, J.D. Power has been delivering incisive industry intelligence on customer interactions

with brands and products for more than 50 years. The world's leading businesses across major industries rely on J.D. Power to guide their customer-facing strategies.

J.D. Power has offices in North America, Europe and Asia Pacific. To learn more about the company's business offerings, visit [JDPower.com/business](https://www.jdpower.com/business).

About PAVE Canada

[Partners for Automated Vehicle Education](#) (PAVE) is a 501(c)(3) nonprofit whose mission is to improve public understanding of advanced vehicle technologies in order to maximize the potential benefits in safety, mobility, and sustainability. PAVE members include automotive manufacturers, technology companies, and nonprofit organizations. In 2021, Transport Canada awarded PAVE an Enhanced Road Safety Transfer Payment Program grant to launch PAVE Canada in order to expand AV education efforts to the Canadian public.

About MIT Advanced Vehicle Technology Consortium

The Advanced Vehicle Technology (AVT) Consortium is an industry-academic partnership within the Massachusetts Institute of Technology (MIT) Center for Transportation and Logistics. The AVT Consortium was launched in September 2015 with the goal of achieving a data-driven understanding of how drivers engage with and leverage vehicle automation, driver assistance technologies, and the range of in-vehicle and portable technologies for connectivity and infotainment appearing in modern vehicles. The effort aims to develop human-centric insights that drive the safety and convenience of automated vehicle technology development and advances the consumer's understanding of appropriate technology usage.

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