



Owner-Operator's Business
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...from the
director's chair

The perilous path to autonomy

My biggest automotive concern over the holidays was the crummy fuel economy my new gasoline-powered car was getting. With my scandalous Volkswagen TDI, I could go 1,000 kilometers on a 50-liter tank of fuel, and was shocked to find myself almost empty at just over 600 kilometers. A friend or two suggested I should have considered a hybrid or electric vehicle, while another speculated that if I'd been able to hold off for a bit, I could have invested in an autonomous vehicle.

If I can't even get over the loss of my diesel engine, how can I get my head around autonomous vehicles? Yet, if the province of Ontario is successful in changing the rules of its 10-year automated vehicle pilot project to allow for driverless testing, I might soon find myself motor-ing along the 401 next to a car with no one in the driver's seat.

Ontario's proposed changes would allow members of the public to drive vehicles that are less than fully automated, that is, capable of driving automatically in limited scenarios, once they are available for purchase. According to the province's transport ministry, that could be as early as this year, or as late as 2040.

In any discussion of automated vehicles, the "when" is just as hotly debated as the "how." Paul Godsmark of the Canadian Automated Vehicles Centre of Excellence, a non-profit consultancy that provides analysis and recommendations on automated vehicle deployment to governments, allows that the entire automated vehicle segment is moving much more quickly than most people realize.

Godsmark closely monitors the lead developers and their progress, and his expectation

is that we will have some form of autonomous vehicle operating on public roads in the next two years in North America.

Dr. Ben Sawyer, a researcher with MIT who specializes in studying human/machine interactions and integration, gives us food for thought: those who are convinced autonomy is not really coming are wrong; it'll be here very soon. And those who think problems will be solved by full autonomy and everyone will be hands-off-the-wheel are also wrong. And, according to Sawyer, between these two states lies the messiest interaction possible.

One thing messing up the path from here to there is how the average person interprets, or understands, the many different terms for vehicles that can drive themselves. Automated, self-driving, autonomous, or driverless vehicles are more often than not referred to simply as AVs. And while it may not be important for everyone to understand the intricacies of SAE's six levels of automation, starting at Level 0 for no automation, and leading up to Level 5 for full automation, it is important to remember that as of today, all those nifty bells and whistles are simply driver-assist technologies.

Creating a false sense of security, and lulling a driver into complacency, can be deadly. There's lots of room for misunderstanding and false expectations behind the wheel of an AV, and in any case, an easily-bored human is likely not the best monitor of technology systems.

In fact, there are those who believe that the sooner we remove the pesky human beings from the equation, the better. As risky as it sounds, a hands-off approach to driverless vehicle safety may save lives, according to Godsmark.



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Commenting on the new guidelines for autonomous vehicles released south of the border last fall, he says it's clear the U.S. government is letting companies that make the vehicles take the wheel, in fact giving licence to developers to try an untested technology on an unsuspecting public. As frightening as that may sound, Godsmark says it may be the best decision. Proving the technology is safe could take hundreds of years, and many say it will save lives now.

The question is, would unleashing an imperfect automated technology kill or injure fewer people than the current human-controlled driving system? Some studies have shown driverless cars could reduce the number of traffic fatalities by up to 90% by removing driver error, speeding, and other unsafe human practices.

Godsmark believes that developers are determined to make the cars safe because their business survival depends on it. The economic pressure to get a piece of what experts say will be a multitrillion-dollar industry – five times bigger than the smartphone business – will motivate them to get it right.

Well maybe. But as a Volkswagen dieselgate victim, I'm still a bit leery about blind faith in an automaker. I'm just saying.

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