

Taking a peek into the self-driving future

Norris McDonald chats with the co-author of a report about the future of traffic congestion in the GTA, transportation options and a shift in car ownership.



Norris McDonald says self-driving cars (or AVS — autonomous vehicles) are coming, whether we like it or not. (JUSTIN TALLIS / AFP/GETTY IMAGES)

By Norris McDonald Wheels Editor
Sat., Nov. 12, 2016

I'm in my doctor's office the other day, and after he tells me I'm not dying he says: "So, how far away are these self-driving cars everybody's talking about?"

And I say, "They're right around the corner, but it's going to be some time before they are practical because they (whoever 'they' may be — governments, likely) are going to have to figure out how to integrate them onto roads where people like you and me are still driving our cars. Then, there's insurance and all sorts of other things to take into consideration.

"So, you'll be able to buy one, probably, by 2020, but when you will actually be comfortable turning it loose is anybody's guess."

I told him all that before I had a long chat with a guy named Bern Grush, who's co-author of a report filed to the **Residential and Civil Construction Alliance of Ontario** about the future of traffic congestion in the GTA, transportation options and an inevitable shift in car ownership.

I came away from that conversation with the realization that self-driving cars are really not the point. The inevitable social change that will follow their introduction is really what's important.

Before I get too far off track here — which is very easy to do when talking to a guy like Grush — it's essential to focus on what I have determined are the main points that are made in his report:

- Self-driving cars (or AVS — autonomous vehicles) are coming, whether we like it or not.
- Two types of self-driving cars are on the horizon: semi-automated vehicles (which can drive themselves or be driven) and are owned like we own or lease cars now, and fully automated vehicles (taxis, shuttles) that are mostly shared, although some will be owned/leased.
- Congestion will get worse, but then better. If everything works out, traffic will ease by the mid-2030s.

Grush, who's a University of Waterloo-educated systems design engineer with “an enormous interest in anthropology and sociology,” says the arrival of self-driving vehicles will come faster than anyone expects.

Cautioning that he's not in the business of making predictions (“I can't tell you what's going to happen tomorrow”) he says, however, that “if you do A, then B will happen. If you do X, then Y will happen.”

He says astronomical amounts of money are being spent by automakers, as well as by companies like Google, to win the AV race. They are not going to flush that cash down the toilet.

“There are billions of dollars being invested in vehicle automation,” he said. “There is an unstoppable Big Auto that wants to sell vehicles. They know how to sell to your desires. So, vehicle automation is inevitable. It's going to happen.”

Illustrating his point about semi-autonomous and fully automated vehicles, he used this example:

“If you walk into a showroom in 2023 and the salesperson says to you, ‘For the same amount of money (that you would normally pay for a car), you can have a vehicle that will take you almost everywhere almost all the time except when the weather is really bad and in certain other situations where you absolutely have to drive. It is fully equipped. It is the car of your dreams. You can drive it or not drive it, it doesn't matter.’ So, I ask: What would you do?”

“If I could buy a car that would take me down the 400 from Barrie to the exit ramp at the 401, and I'm dozing or whatever, and then I'd drive it the last couple of kilometres to Bay and Queen, I'd say, ‘Take me.’ I would love that, rather than the nightmare 400 bumper-to-bumper. I think there are a lot of people who would like that.”

And what about the fully autonomous cars that Google and Elon Musk and others are working on? “They would work best as robo-taxis,” he said. “If I live downtown and only use a car on occasion, I’d like to whistle and a car would come and get me and take me to where I’m going.”

I told Grush about my 19-year-old son who doesn’t have a licence and isn’t interested in driving or owning a car. But he likes the idea of the fully automated car because he’ll be able to climb into it and tell it where he wants to go.

Grush says my son is the future.

“The automation coming will initially lean more toward people who now own a car,” he said. “They’ll transition into purchasing a semi-autonomous car and then, when they get too old to drive, into fully autonomous cars. People who don’t own cars now or in the future (i.e., my son) will be happy to rent rides in full AVs.”

Grush’s paper, officially entitled Ontario Must Prepare For Vehicle Automation, written by Grush, John Niles and Edgar Baum of Grush Niles Strategic of Toronto and Seattle, suggests that as driving becomes easier in semi-autonomous cars, more and more people will move further and further out from the city and commute in, leading to an increase in congestion. But as self-driving cars evolve, the population ages and the shift to fully autonomous cars becomes complete (it’s estimated that one AV will replace four conventional cars), congestion will ease.

The report was commissioned by the **Residential and Civil Construction Alliance of Ontario**. Its executive director, Andy Manahan, said government has to get to work now on policies to deal with the inevitable issues that will crop up.

One of them, Grush said, is that all of those driverless cars “can’t go flying all over the place without supervision — there’s going to be mapping and systems and so forth.” To that, Manahan says, “We need to build the necessary infrastructure.”

As my conversation with Grush concluded, I said the report seems to me to be missing one thing — the human element. Computers, for instance, can land airplanes, but pilots are still employed because the travelling public wouldn’t stand for machines being in charge of their lives. To this, he replied:

“Some people will accept change, some won’t. It took 40 years to go from the invention of the car (the horseless carriage) to no horses. I argue that it will be the same 40 years all over again. We’re amazed today that people will soon be driving cars with ‘no hands.’ No hands on a wheel is really not important. Tell that to your great grandchildren, and they’ll wonder what the big deal is about.”