

SMART DRIVING CARS



<http://smardrivingcar.com/Ontario-102716>

Thursday, October 27, 2016



Ontario Must Prepare for Vehicle Automation

B. Grush, Oct. 2016, "Two contradictory stories about our transportation infrastructure are currently in circulation. One is that Ontario's aging, inadequate and congested infrastructure is perennially unable to catch up with a growing and sprawling GTHA. The other is that vehicle automation will soon dramatically multiply current road capacity by enabling narrower lanes, shorter headways and coordinated streams of connected vehicles to pass through intersections without traffic signals to impede flow.

Since the premature forecast of peak car in 2008 and now the hype surrounding the automated vehicle, we are often told that we have enough road capacity; that shared robotic taxis will optimize our trips, reduce congestion, and largely eliminate the need for parking. This advice implies we need wait only a few short years to experience relief from our current infrastructure problems given by decades of under-investment in transportation infrastructure.

This is wishful thinking. Vehicle automation will give rise to two different emerging markets: semi-automated vehicles for household consumption and fully automated vehicles for public service such as robo-taxi and robo-transit. These two vehicle types will develop in parallel to serve different social markets. They will compete for both riders and infrastructure. The purpose of this report is to look at why and how government agencies and public interest groups can and should influence the preferred types and deployment of automated vehicles and the implication of related factors for planning..." [Read more](#) *Hmmm...Bravo! The Key Findings & Recommendations are excellent. This is an excellent report (but it largely misses goods movement.) Especially 5.1 (read 'semi-autonomous' as 'Self-driving' and 'full-automation' as 'Driverless'. My view: Driverless may well be at the heels of Self-driving because it is a business play rather than a consumer play. Driverless will be ordered by the hundreds or thousands rather than individually.) and, of course Ch 10: Ownership (the business model) is more important than technology. Alain*

The Washington Post

[Michael Bloomberg's plan to get cities ready for self-driving cars](#)

B. Fung, Oct 24, "...The advent of autonomous cars is one of the most exciting developments ever to happen to cities," Bloomberg said. "And if mayors collaborate with one another, and

with partners in the private sector, they can improve people's lives in ways we can only imagine today."..." [Read more](#) *Hmmm... Again, he means 'Driverless' cars that can operate as a fleet of autonomousTaxis. Alain*



[How Will Self-Driving Cars Change Cities?](#)

H. Grabar, Oct 25, "It depends on who owns them..." [Read more](#) *Hmmm...We will own 'Self-driving' cars. We won't share them. VMT will increase. Parking lots will NOT disappear. We won't own 'Driverless' cars. We'll ride-share as we do in elevators. Parking lots will be fewer and not necessarily near activity centers. Attached garages to homes will officially become storage facilities. Some on-street parking will be converted to aTaxi stands; others will disappear. Gas stations will consolidate and visited only by empty vehicles bankrupting their convenience store. The last of the Drive-in movies will close. Rest areas along freeways will shutter.... Alain*



[Here's How Self-Driving Cars Will Transform Your City](#)

S. Lubell, Oct 21, "...We asked eight urban planners and futurists to share their visions of a driverless future..." [Read more](#) *Hmmm...Interesting. (BTW, I'm assuming that they were each responding to 'Driverless' and not 'Self-Driving') Alain*



[The Difficult Part of Building Driverless Cars](#)

WSJ Video, Oct 26, "Astro Teller, Captain of Moonshots for Alphabet's X, talks about the most difficult parts of building a road-ready driverless car. ..." [See Video](#) *Hmmm... Yup! Enormous difference between "Self-driving" and "Driverless". Alain*



[The next president should make driverless cars a White House priority, group says](#)

A. Hashley & M. Laris, Oct 20, "...“The DOT is not equipped to lead something this big, this complex, something this cross- cutting,” said Paul Brubaker, chairman of the alliance, “and I think [the Office of Science and Technology] has access to the talent, to the mandate and will have the knowledge, skills and abilities to effectively operationalize this strategy and produce the outcomes that we’re looking for.”

Brubaker has worked at the departments of transportation and defense and as a senate staff member. [His report](#) says that “American drivers have a deeply misplaced confidence in their ability” to drive, and suggests that the sooner they be relieved of that responsibility, the better.

“Make no mistake, we will eventually get to a self-driving future, but every day we delay can be measured in lives lost,” the report says...." [Read more](#) *Hmmm... Amen! Be sure to look at the report:"[A NATIONAL STRATEGIC FRAMEWORK TO ADVANCE LIFE-SAVING SELF-DRIVING](#)*

[VEHICLES](#)". Also see: [Automobiles aren't 'driverless' if they can't go full auto ... What???](#) No Kidding. 'Driverless' means No Driver! Of course you can sleep if you wish. You aren't allowed to drive the 'bus'. Alain



[Self-Driving Truck's First Mission: A Beer Run](#)

M. Isaac, Oct 25, "... The futurists of Silicon Valley may not have seen this one coming: The first commercial delivery made by a self-driving truck was 2,000 cases of Budweiser beer.

On Tuesday, Otto, the Uber-owned self-driving vehicle operation, announced the completion of its first commercial delivery, having delivered its beer load from Fort Collins, Colo., to Colorado Springs, a roughly 120-mile trip on Interstate 25...." [Read more](#) *Hmmm... It is a shame that hype has to accompany these milestones. 120 miles of Self-driving on I-25 was an accomplishment 20 years ago. I know the article said that "at no point was the driver required to intervene", [the video](#) doesn't document the beginning and ends, so I remain skeptical. Plus I don't understand why there is hype. Is Uber trying to flip Otto already? Alain*



[nuTonomy halts vehicle trials after accident at one-north](#)

L. Ying, Oct 19, "Autonomous vehicle startup nuTonomy has stopped all trials of its vehicles until investigations into an accident involving one of its driverless cars is completed, said the company's co-founder Emilio Frazzoli on Wednesday..." [Read more](#) *Hmmm...This is what happens when one rushes to the starting line. "Crowd Testing" has serious consequences. Just because Google was able to do it essentially flawlessly, it doesn't mean that it is easy. Alain*



[Tesla's Self-Driving Car Plan Seems Insane, But It Just Might Work](#)

J. Stewart, Oct 24, "...The automaker did release a video of its Model X SUV, carrying the new hardware and prototype software, driving itself around Palo Alto. It seems impressive, but it's no proof of concept.

"An unedited sequence of the vehicle driving itself in downtown San Francisco would be more meaningful to see what the vehicle is capable of doing," says Raj Rajkumar, who runs autonomous driving research at Carnegie Mellon University.

Let's say the car's as capable as the video makes it seem. Could it get itself across the country? "If we're looking at another year of development, I think we could see something like that happen," says Jeffrey Miller, an IEEE member who studies autonomous driving at the University of Southern California.

Yet Rajkumar points to Google, which, after nine years of work on this project, still won't even give a timeline for its rollout. "Mastery of self-driving under real-world conditions is not going to

be easy," he says..." [Read more](#) *Hmmm... I agree! The video is enormously dangerous because of what it does NOT show especially at the end when it gives the appearance that there is no one in the car and it actually drives down what one is led to believe is a normal unprepared public street at a normal time without anyone in the car. If it actually did that, it would be a world's first. If so, Elon would be proclaiming it. Maybe I'm just too cynical. Sure drive around a private parking lot and maybe even a public street that has been cordoned off by police, but I can't believe that even Elon is so irresponsible that he would send it out by itself, no one in it on an unprepared public street. We simply are not there yet. Likely not even close. And then there is more hype in: [Tesla just made a big move to take on Uber](#) I can't take it anymore. Tesla is nowhere near a 'Driverless' car. Self-parking is an infinitesimally small piece of 'driverless'. Alain*

Forbes

[Tesla's Autopilot And Me: A Car Guy's First 21 Days Sharing The Wheel](#)

M. Dune, Oct 26, "Early verdict: Tesla's Autopilot system in many situations might just be a smoother, more consistent driver than I am ...But, I have the clear edge in complex traffic situations. Autopilot is no match, for example, when it comes to maneuvering quickly across more than one lane to catch the right highway exit..

I can disengage the Autopilot system at any time by either tapping on the brakes or by taking over the steering.... **Tapped Brakes.** Like most drivers, I respond reflexively to brake lights. When a car in front taps its brakes, I tap my brakes...." [Read more](#) *Hmmm...Pretty good and fair description. I do want to repeat one of my pet peeves with respect to **Tapped Brakes**: That human action should ONLY turn-off the acceleration function of AutoPilot (and NOT the braking and steering). Similarly, grabbing the wheel, should allow steering to be over-ridden but NOT turn-off the the braking function. 'Hitting the 'gas' pedal should turn-off the Brake, but NOT the steering. Alain*

FORTUNE

[Here's How Many Self-Driving Cars GM Has on the Road](#)

K. Korosec, Oct 26, "General Motors now has 30 self-driving all-electric Chevrolet Bolt vehicles that it's testing on public roads in Scottsdale, Ariz., and San Francisco, GM CEO Mary Barra said Monday during the automaker's third quarter earnings conference call...." [Read more](#) *Hmmm...See also: [Tesla Versus GM: Which Self-Driving Car Roadmap Will Win?](#) Alain*

THE WALL STREET JOURNAL.

WSJ

[Nvidia CEO Sees Smart Cars Getting Much Smarter](#)

D. Clark, Oct 25, "... As a result of the software race, and chips like Nvidia's, the benefits are going to move much more quickly than the rate at which gains in conventional microprocessors accelerated innovation in industry's like personal computers—a pace of innovation named after Intel Corp. co-founder Gordon Moore.

"It's going to move way faster than Moore's Law," Mr. Huang said...." [Read more](#) *Hmmm...Yup!*
Alain



[Indeed.com says self-driving vehicle job listings are way up and so is interest in them](#)

K. McSweeney, Oct 24, "At the top job site Indeed.com, a variety of companies are posting positions for engineering autonomous vehicles. Visitors click on these listings much more frequently than the other 16 million jobs that are posted on the site...Nearly 100 different companies have job listings for autonomous vehicle positions on Indeed.com, and there is an interesting mix of traditional auto manufacturers and tech companies...." [Read more](#)
Hmmm... :-) Alain



[Premium concern: insuring the success of the autonomous car](#)

M. Lampinen, Oct 25, "...In May 2016, Swiss Re and HERE published the findings of their joint research study into the impact of autonomous driving on the insurance industry. '[The future of motor insurance – How in-car connectivity and ADAS are impacting the market](#)', (Swiss Re/ HERE, 2016) found that autonomous drive (AD) technologies could reduce insurance premiums globally by US\$20bn by 2020. ...It is hardly an exaggeration to suggest that the automotive insurance industry could be dealt a massive blow by the rise of self-driving car technology and the growing acceptance of business models involving shared vehicles..." [Read more](#) *Hmmm... Yes, Auto Insurance is about to face a 'Kodak Moment'.* *Alain*

[On the More Technical Side](#)

<http://orfe.princeton.edu/~alaink/SmartDrivingCars/Papers/>

[Jobs](#)

https://nrel.wd5.myworkdayjobs.com/en-US/NREL/job/CO---Golden/Transportation-Behavior-Analyst_R1580

https://nrel.wd5.myworkdayjobs.com/en-US/NREL/job/CO---Golden/Transportation-Data-Project-Leader_R1582

https://nrel.wd5.myworkdayjobs.com/en-US/NREL/job/CO---Golden/Postdoctoral-Researcher-Transportation-Data-and-Analysis_R1574

Half-baked stuff that probably doesn't deserve your time:



[Driverless car tested on UK streets for the first time](#)

C. Pitas, Oct 12, "With the steering wheel turning on its own and radar and camera technology guiding it, a driverless car took to Britain's streets for the first time on Tuesday, as part of trials aimed at getting autonomous vehicles onto the roads by 2020. The electric-powered pod - like a small two-seater car - navigated its way around a **pedestrianised area** in the southern English

town of Milton Keynes at 5 miles (8km) per hour, turning corners and stopping as pedestrians crossed its path...." [Read more](#) *Hmmm... I can't imagine the reaction the reaction of Milton Keynes motorists and bicyclists trying to get around these things traveling at 5 mph. Of course NOT. The "first time" is in a "pedestrianized area" NOT a "UK street". Please let us know when it happens on normal "UK street". Alain*

**MIT
Technology
Review**

[The Blind Have High Hopes for Self-Driving Cars](#)

E. Woyke, Oct 12, "...Advocates for the blind—at Perkins and beyond—say driverless cars could revolutionize their lives, provided the vehicles are designed to be accessible...." [Read more](#) *Hmmm... Wrong! Self-driving cars do essentially nothing for the 'Blind'. What they need are **Driverless** cars!!! There is an enormous difference and MIT should not be sloppy in its terminology. The blind are not prepared to intervene every time a Self-driving car can't 'do it'. Alain*



[Could Self-Driving Cars Speed Hurricane Evacuations?](#)

L. Bliss, Oct 12, "...Could lives have been saved if evacuees didn't have to pilot themselves?..." [Read more](#) *Hmmm... No! Next Question? ... No! Cars are already connected with with SmartPhones. Alain*

Older stuff that I had missed:



[New California law allows test of autonomous shuttle with no driver](#)

Reuters, Sept. 29, 2016, "A bill signed into law ... allows a self-driving vehicle with no operator inside to test on a public road, a key step enabling a private business park outside San Francisco to test driverless shuttles....The bill ... allows testing in Contra Costa County northeast of San Francisco of the first full-autonomous vehicle without a steering wheel, brakes, accelerator or operator.

A project at the Bishop Ranch office park in the city of San Ramon to deploy driverless shuttles from French company Easymile had been on hold pending passage of the bill. Easymile already operates the shuttles in Europe.

New legislation was necessary because although driverless vehicles can be tested on private land like the office park, the shuttle will cross a public road on its loop through the campus.... Google and others have complained that California state regulations on self-driving vehicles are too restrictive, and that a patchwork of state regulations is unwieldy...." [Read more](#) *Hmmm... **Micro-Patchwork Legislation!** Alain*

C'mon Man! (These folks didn't get/read the memo)



JAGUAR LAND ROVER TESTS CONNECTED AND AUTONOMOUS VEHICLE

TECHNOLOGY

Press release, Oct 20, "...Jaguar Land Rover is working with Ford and Tata Motors European Technical Center to test connected technologies that will allow cars to talk to each other as well as the roadside infrastructure, such as traffic lights, in the future...." [Read more](#) *Hmmm...I guess J/LR didn't get the memo that 'Connected' is out and 'Automated' is in. C'mon Man! Alain*