

SMART DRIVING CARS

<http://smartdrivingcar.com/Juicy-090916>

[Friday, September 09, 2016](#)

MOTHERBOARD

[The Head of CMU's Robotics Lab Says Self-Driving Cars Are 'Not Even Close'](#)

J. Peterson, Sept 1, "...To find out what it's been like to rebuild a top robotics lab after being gutted by one of the most powerful companies in the world, I called up Herman for a candid conversation about what universities can do that corporations can't, and how CMU has managed to pick up the pieces of what Uber left behind...

Maybe, and maybe not. The objectives of companies like Uber, and our objectives as a university, are different. Uber as a company has to worry about its valuation. I think part of the reason that they released the news about these autonomous taxis is marketing. Technically, I'm not sure if it's ready. They still have to have engineers in the car. So, for technical reasons, it's not there. But for non-technical reasons, they decided that it's a good idea to start talking about it..." [Read more](#) *Hmmm...Juicy! Alain*



[2015 Motor Vehicle Crashes: Overview](#)

DOT HS 812 318, Aug, 2016, "The Nation lost 35,092 people in crashes on U.S. roadways during 2015, an increase from 32,744 in 2014. The 7.2-percent increase is the largest percentage increase in nearly 50 years..." [Read more](#) *Hmmm...Very bad news. Can anyone say "texting"! Alain*



[Open data and traffic fatalities](#)

R. Ragupathy, Aug 30 "Traffic fatalities in the U.S. jumped 7.2% to 35,092 last year, the sharpest increase in about 50 years. Yesterday the NHTSA's Fatality Analysis Reporting System (FARS) released final 2015 data on vehicle crashes in the United States. The Department of Transportation (DOT), National Highway Traffic Safety Administration (NHTSA), and the White House also issued an unprecedented call to action asking for help analyzing fatality data to find ways to prevent these tragedies:...

Responding to this call, we created the map below to show where fatal crashes have occurred over the last five years. Enter your address and the destination of your commute to see fatal crashes that occurred along your route between 2011 and 2015. Toggle between additional information, such as alcohol, excessive speeding, cyclists, or pedestrians involved and compare

the differences between the years." [Read more](#) *Hmmm...You must look at their "map below" It is really good!! Alain*



[Michigan Moves to Not Require Human in Driverless Test Cars](#)

D. Eggert (AP), Sept 7, "Michigan would no longer require that someone be inside a self-driving car while testing it on public roads under legislation passed unanimously Wednesday by the state Senate, where backers touted the measures as necessary to keep the U.S. auto industry's home state ahead of the curve on rapidly advancing technology...." [Read more](#) *Hmmm...This is very significant because, as far as I know, we have yet to drive the first meter/foot down a normal street in a normal environment without anyone in a self-driving (aka... a driverless self-driving) car! This is necessary legislation to negate legislation requiring that a person must be in a car motoring down a street (or legislation requiring remote operation of an empty vehicle.) Alain*



[Intel to buy Movidius to help it win in new tech like virtual reality,](#)

[driverless cars](#)

A. Kharpal, Sept 6, "U.S. semiconductor giant Intel is to acquire Movidius, a company that creates so-called "computer vision" chips which will play a key role in technologies from virtual reality (VR) to driverless cars, the company announced Tuesday.

Movidius makes processors that use artificial intelligence to assess the world around them. The company is already working with Chinese dronemaker DJI with its tech implemented in the Phantom 4 unmanned aircraft, giving it the ability to sense and avoid obstacles in real time and hover in a fixed position without the need for a GPS signal...." [Read more](#) *Hmmm...Very interesting! Alain*



[Civil Maps Debuts Augmented Reality Maps for Self-Driving Cars](#)

Sept 8, "[Civil Maps](#), a software provider for crowdsourcing continental scale 3D maps for fully autonomous machines, today unveiled a passenger-facing augmented reality (AR) experience that integrates the company's localization technology with 3D dynamic maps...." [Read more](#) *Hmmm...Interesting! Alain*



[Driverless bus takes to the road in Perth](#)

C. Griffith, Sept 1, "The first driverless vehicle on a public Australian road rolled out yesterday, mixing it with other cars, cyclists and pedestrians in Perth.

The 11-seater French Navya shuttle bus was bought by automotive club the [RACWA](#) for \$296,000 and will spend the next three months covering a 2.7km stretch of the South Perth foreshore along the Swan River, operating at speeds of up to 25km/h. [Read more](#)

Hmmm...Another first adopters! Alain



[Nvidia and Baidu partner on a 'top-to-bottom' platform for self-driving cars](#)

D. Etherington, Aug 31, "Nvidia co-founder and CEO Jen-Hsun Huang revealed a new partnership on stage at Baidu's annual Baidu World conference today. This partnership with Baidu will see Nvidia and the Chinese tech giant work together on building a comprehensive autonomous driving platform.

"We're going to bring together the technical capabilities, our expertise in AI, and the skills of two world-class companies," Huang said, noting that the partnership will be the AI and deep learning skills of both companies. "By combining these capabilities, we will be able to deliver a cloud-to-car architecture platform that promises to get cars on the road in the next several years."

Nvidia and Baidu will be building an end-to-end solution for self-driving cars, according to Huang. The end goal is a platform that allows Baidu to get a self-driving taxi fleet on the road, and the same platform is also designed for use in OEM cars, tied into the same network...."

[Read more](#) *Hmmm... "end-to-end" solutions AND supply OEMs!??? Sound like a monopoly???*

Alain



[Tesla says Autopilot system not responsible for Dutch crash](#)

AP, Sept. 7, "Tesla Motors says the Model S sedan involved in a fatal crash in the Netherlands wasn't operating in the company's semi-autonomous Autopilot mode and was going more than 96 miles per hour when it crashed..." [Read more](#) *Hmmm...I hate to say this, but maybe it is now time for cars to keep us from behaving irresponsibly when we exercise our privileged to drive. It is a privileged and we should be doing it responsibly. If it is really important that we go 96 mph, then there should be an easy way for us to get permission to do it (for example if we are trying to commit suicide, or ???); else, the car should not let us do it. In this case, the car knew it was going 96 mph and that it wasn't on the German autobahn (and that it wasn't avoiding something). While in this case no one else was killed, a bunch of people had to clean up the mess that was created. "AutoPilots" should make it much more difficult/challenging for us to behave irresponsibly. [See also](#) Alain*



[Big Carmakers Merge, Cautiously, Into the Self-Driving Lane](#)

N. Boudette, Sept 1, "...The big carmakers hope to avoid the criticism that has enveloped Tesla's Autopilot — that the driver-assistance technology can lull the person behind the wheel into a mind-wandering sense of false security. "Through the driver's eyes, you can detect his or her level of attention," Mark Reuss, G.M.'s executive vice president for global product development, said in July at an auto technology conference in Detroit.

The monitoring system, which analyzes images of the drivers' eyes and head to tell if they are looking forward, will notice if drivers are drowsy, looking down at their cellphones or have turned to reach into the rear seat. If the driver does not turn back to the road after a few seconds, warning tones and lights go off. If the driver does not respond, SuperCruise can (...will???) slow or (...safely pull over and ???) stop the car, Mr. Reuss said. [Read more](#)
Hmmm...OK!?! Alain

Automotive News ['Best practices' for autonomous car testing sought by new industry group](#)

R. Beene, Sept 8, "Bolstering shaky public confidence in the safety of autonomous cars will be a key aim for a new group of transportation, research and former government officials formed to issue recommendations about how driverless cars should be tested on public roads. Dubbed the Commission on Autonomous Vehicle Testing and Safety, the group will study and publish "best practices" for the safe testing of self-driving cars on public streets to inform automakers and policymakers working on the issue.

The group is a project of Securing America's Future Energy, or SAFE, a Washington-based nonprofit that advocates reducing U.S. dependence on petroleum. The organization has recently begun a major push for autonomous vehicles. The autonomous vehicle commission is expected to be announced by SAFE today..." [Read more](#) *Hmmm...Good! Alain*

The Michigan Daily [Toyota and University announce driverless car project details](#)

K. Linder, Sept 7, "In a continued partnership with the University of Michigan, Toyota announced it will invest \$22 million to fund research on driverless cars and methods of artificial intelligence. This is an expansion of the Toyota Research Institute's April announcement, which revealed TRI will be opening a new facility in Ann Arbor..." [Read more](#) *Hmmm...Congratulations! Alain*

THE VERGE [Volvo will sell its self-driving car tech to other automakers](#)

J. Golson, Sept 6, "Volvo is forming a joint venture with Swedish automotive safety supplier Autoliv to develop autonomous driving software and sell it to other automakers. It's the first time an automaker has partnered with a "tier-one" supplier to develop self-driving technology..." [Read more](#) *Hmmm...Since we have software folks getting in the car business, why not have car folks in the software business! Is this really the "1st"? Alain*



[Volvo first in the world with self-driving truck in underground mine](#)

Press Release, Sept 9, "Volvo's fully autonomous truck is the first in the world to be tested in operations deep underground in the Kristineberg Mine. The self-driving truck is part of a development project aimed at improving the transport flow and safety in the mine. The truck will cover a distance of 7 kilometres, reaching 1,320 metres underground in the narrow mine tunnels. [See Video](#), [Read more](#) *Hmmm...Seems like to would be easier. Not many options.Well defined edges/walls. Alain*



[Google's driverless cars fitted with police detection technology](#)

H. Williams, Sept 7, "...A supporting US patent filing revealed that Google has hoped for a system that will recognise emergency services' flashing lights. The sensors would be made to identify red or blue colours, as well as that of ambulance vehicles...[Read more](#) *Hmmm...See patent application [20160252905](#). Alain*



[How This Tech in Self-Driving Cars Is Paving a Road](#)

[Beyond Silicon](#)

K. Fehrenbacher, Sept 8, "Ever heard of gallium nitride transistors? You're about to thanks to Lidar in cars....

For more on how self-driving cars are blowing up the auto industry, [watch video](#): [Read more](#) *Hmmm...OK. Alain*

Some other thoughts that deserve your attention



[Dilbert](#)



[Sharing to help solve the snarls of traffic](#)

G. Lombaerde, Sept. 8, "...What Air BnB did to match a house guest with that extra room in your home, Hych does for empty seats in your car. Sharing the cost of a ride turns that unused asset into a money maker. Imagine 50 to 75 people in your neighborhood who are on your route to work or just a stone's throw off your route for pickup. If you had 75 options available for sharing a ride, would you take advantage once in a while? Once a week?..." [Read more](#) *Hmmm...As a former Hitch-hiker, I can't understand why the smartPhone hasn't completely rejuvenated THE original of the shared economy? Alain*



International
Monetary Fund

Intelligent Technology

H. Varian, Sept 2016, " ...One example of technology veloping services, which are only a small part of photography these days...." [Read more](#) *Hmmm...Interesting. Alain*

On the More Technical Side

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



TEXAS

The University of Texas at Austin

Shared Autonomous Electric Vehicle (SAEV) Operations across the Austin, Texas Network with a Focus on Charging Infrastructure Decisions

Ben Loeb, Kara Kockelman, and Jun Liu. Under review for presentation at the 96th Annual Meeting of the Transportation Research Board and publication in *Transportation Research Record* (2017). [Read more](#)



TEXAS

The University of Texas at Austin

Tracking a System of Shared Autonomous Vehicles across the Austin, Texas Network using Agent-Based Simulation

Jun Liu, Kara Kockelman, Patrick Boesch, and Francesco Ciari. Under review for presentation at the 96th Annual Meeting of the Transportation Research Board and publication in *Transportation Research Record* (2017). [Read more](#)



TEXAS

The University of Texas at Austin

Anticipating the Emissions Impacts of Autonomous Vehicles Using the MOVES Model

Jun Liu, Kara Kockelman & Aqshems Nichols. Under review for presentation at the 96th Annual Meeting of the Transportation Research Board and publication in *Transportation Research Record* (2017). [Read more](#)



TEXAS

The University of Texas at Austin

Economic Effects of Autonomous Vehicles

Lewis Clements & Kara Kockelman. Under review for presentation at the 96th Annual Meeting of the Transportation Research Board and publication in *Transportation Research Record* (2017). [Read more](#)



[Anticipating the Regional Impacts of Connected and Automated Vehicle Travel in Austin, Texas](#)

Yong Zhao & Kara Kockelman. Under review for presentation at the 96th Annual Meeting of the Transportation Research Board and publication in *Transportation Research Record* (2017). [Read more](#)



[Making the Most of Curb Spaces in a World of Shared Autonomous Vehicles: A Case Study of Austin, Texas](#)

Qinglu Ma, Kara Kockelman, & Marc Segal. Under review for presentation at the 96th Annual Meeting of the Transportation Research Board and publication in *Transportation Research Record* (2017). [Read more](#)

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

Older stuff that I had missed:

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



[Simulating motion sickness in autonomous cars](#)

J. Duarte, Aug 25, "...That's right ... people are getting sick in simulators in order to make a new generation of vehicles more sensitive to its occupants' suffering from motion sickness. ..." [Read more](#) *Hmmm...Wait a minute, I get sick every time I get in one of those simulators irrespective of what I'm doing, yet when I ride shotgun and my better half is driving, not so much. What???* *C'mon man!. Alain*

Calendar of Upcoming Events:

N>EXT GEN
TRAIN CONTROL

[Sept 15 & 16, 2016](#)

[Arlington, VA](#)



[Sept 19-21, 2016](#)
[Antwerp, Belgium](#)



[Sept 19-23, 2016](#)
[Washington, DC](#)



[F1/10 Autonomous Racing Competition](#)
[Oct 1-2](#)
[Wean Hall, Carnegie Mellon U.](#)