

SMART DRIVING CARS



<http://smartdrivingcar.com/5.13-HereWeGo-050217>

13th edition of the 5th year of SmartDrivingCars



Announcing:

[Princeton SmartDrivingCar Summit](#)

Buyers, Sellers, Facilitators

May 17, 18

(In less than three weeks)

[Princeton University, Princeton, NJ](#)

Last Chance for Early Bird Registration

Visit [Landing Page](#) for registration and sponsorship opportunities.

<http://summit.SmartDrivingCar.com/>

[Tuesday, May 2, 2017](#)

WIRED

[Senseless Government Rules Could Cripple the Robo-Car Revolution](#)

R. Hagemann, May 1, "...Now, there's little doubt that autonomous vehicles are the next frontier of transportation. ...however, there are a number of roadblocks to surmount: infrastructure issues, restrictive state licensing policies, driver education, cybersecurity and privacy vulnerabilities, and more. For innovators, regulators, and policymakers, solving these problems will involve a long to-do list, but a **pointless regulatory scuffle** over technology standards should not be on it.

So why is the federal agency responsible for our road safety looking to introduce a totally avoidable roadblock to automotive innovation by mandating a **severely flawed technological standard** for vehicle communications?...". [Read More](#) *Hmmmm... I love it..." a **pointless regulatory scuffle**" and "a **severely flawed technological standard**". Only DSRC. could engender*

such criticism.... "...Imagine if the government had demanded that Henry Ford equip every one of his Model Ts with telegraph machines that could only communicate with other Model Ts. A 19th century communications technology mandated for use in a 20th century innovation would have been a crushing blow to innovation and competition in the emerging automobile industry. That's precisely what is happening with the DSRC mandate, and the same potential for future innovation is at risk with its implementation..." *Alain*



[T-Mobile unveils plan for first nationwide 5G](#)

[network ready by 2020](#)

T. Soper, May 2, "T-Mobile on Tuesday [laid out its plan](#) to offer the first nationwide mobile 5G coverage by 2019. The Bellevue, Wash.-based wireless carrier said it will utilize the low-band wireless spectrum licenses it just paid \$8 billion for to offer the next-generation network, which will roll out in 2019 and expand nationwide by 2020. ..." [Read More](#) *Hmmmm... What is the DSRC national plan? Alain*



[Your car will eventually live-stream video of your driving to the cloud](#)

L. Mearian, Apr 28, "... A single autonomous car could generate as much as 100GB of data every second, said Barclays analyst Brian Johnson, in a note published Wednesday..." [Read More](#) *Hmmmm... Just because it can, doesn't mean it should. An elegant human trait is that we both ignore and forget. The smartest of SmartDrivingCars will do the same. Alain*



[Even Before Driverless Cars Hit The Road, Auto Insurance Faces Big Challenges](#)

F. Khayatt, May 2, "... While it's a scenario (driverless) that every auto insurer has heard about and dreads, it's not the scenario auto insurers should really be focused on today. Instead, they need to concentrate on the artificial intelligence already making its way onto the roads because it's those advanced driver assistance systems that are about to upend accidents and claims experience in the industry's pricing and underwriting models, long before self-driving cars make a significant impact...While the numbers with such innovations as autonomous braking and automatic steering correction functions are still few, that won't be the case for long..."

As in other industries grappling with such disruption spawned by artificial intelligence, auto insurers need to get out in front of the change, rethink strategies and tactics before that drip, drip, drip of innovation becomes a torrent. This once staid industry must initiate a reformulation of its pricing, underwriting, claims processes, and **most importantly, its culture....**" [Read More](#) *Hmmmm... Pow!!! Two of the main themes of my upcoming Princeton SmartDrivingCar Summit May 17 & 18...Insurance & AI/DeepDriving. Register now. Alain*

ISPRS Journal [Computer Vision for Autonomous Vehicles: Problems, Datasets and State-of-the-Art](#)

J. Janai, Apr 18, "...This paper... (provides) ... a state-of-the-art survey ...(which)... includes both the historically most relevant literature as well as the current state-of-the-art on several specific topics, including recognition, reconstruction, motion estimation, tracking, scene understanding

and end-to-end learning. ...we first provide a taxonomy to classify each approach and then analyze the performance of the state-of-the-art on several challenging benchmarking datasets including KITTI, ISPRS, MOT and Cityscapes. Besides, we discuss open problems and current research challenges..." [Read More](#) *Hmmmm...An excellent survey. Alain For perspective, watch video. Alain*



[How self-driving cars will profoundly change real estate](#)

D. Findling, May 2, "...Here are some of the changes he and other experts in the field predict:..." [Read More](#) *Hmmmm... Just the tip of the iceberg. Alain*



[Apple, Tesla Weigh In on California Self-Driving Car](#)

[Regulations](#)

"...In addition, both Waymo and General Motors made comments related to liability rules. Liability is one of the biggest question marks surrounding self-driving cars, as regulators, manufacturers, and insurance companies have yet to figure out who is at fault when an autonomous car crashes. The companies building and operating self-driving cars will likely put pressure on regulators to limit their liability as much as possible, in order to prevent a flurry of lawsuits if autonomous cars really do hit the road in large numbers...and start malfunctioning." [Read More](#) *Hmmmm... Bad idea. These systems MUST be safe and in a large sense the safer the better. They wont be perfect, so there is some liability exposure and that is a legitimate cost of doing business and that is a good way to separate the winners from the losers. Limiting the liability has us, the general public, helping the losers. Doesn't seem to be what we want to do. If companies are leery of the liability, they should simply make safer vehicles. Alain*



[Autonomous car start-up Zoox hires ex-Ferrari exec Lanzone](#)

TechNew, May 1, "Autonomous vehicle start-up Zoox said on Monday Corrado Lanzone, former operations director of Ferrari SpA's racing division, has joined the California-based company as its vice president of manufacturing operations. Lanzone joins Zoox after a two-decade career at Scuderia Ferrari, where he oversaw manufacturing, purchasing, quality assurance and managed relationships with more than 100 Tier-1 suppliers, the Silicon Valley company said in a statement...." [Read More](#) *Hmmmm... Very interesting. Alain*



[Uber Executive Steps Back From Self-Driving Cars During Waymo Legal Fight](#)

M. Issac, Apr 27, "Anthony Levandowski, the Uber executive accused of stealing trade secrets from Google, is stepping aside from leading some of the company's work on self-driving vehicles, amid a bare-knuckled legal fight between the two technology giants.... At stake is what many technologists consider to be the intersection of the next wave of computing, artificial intelligence and an entirely new category of transportation. Mr. Kalanick has said the race for

self-driving technology is “existential” to Uber’s future, looking ahead to a day when smart driverless vehicles can move millions of people around as quickly and efficiently as possible....”

[Read More](#) *Hmmm... The stakes are enormous. Alain*

Samsung joins the self-driving car race:

Daily Mail

[.com Samsung joins the self-driving car race:](#)

S. Liberatore, May 1, "...The South Korean electronics maker has recently been approved to test its deep-learning based autonomous vehicles on public roads. Although the firm has been very quiet about the project, it has developed a 'commercialized Hyundai vehicle equipped with the latest cameras and sensors' that will be used during testing..." [Read More](#) *Hmmm... Another in Deep Learning space. Alain*

news-press.com

[Lee County looks ahead to](#)

[driverless car revolution](#)

B. Smith, May 1, "...The Lee Metropolitan Planning Organization is looking ahead to the region's roadway needs for 30 years and longer into the future...." "We don't know exactly how it will come down, that's kind of why we were talking about it," said Don Scott, the MPO executive director.... "Nobody knows exactly how it gets rolled out, what the implications are," Scott said. "There's more work to be done on what might be future infrastructure needs...." [Read More](#) *Hmmm... They should come to the [Princeton SmartDrivingCar Summit on May 17 and 18.](#) Alain*

Some other thoughts that deserve your attention

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[This neural network could make animations in games a little less awkward](#)

D. Coldewey, May 1, "...Researchers from the University of Edinburgh and Method Studios put together a machine learning system that feeds on motion capture clips showing various kinds of movement. Then, when given an input such as a user saying “go this way” and taking into account the terrain, it outputs the animation that best fits both — for example, going from a jog to hopping over a small obstacle...." [Read More](#) *Hmmm... See video. and [A Deep Learning Framework for Character Motion Synthesis and Editing \(SIGGRAPH 2016\)](#) View as background. Very interesting,. We need something like this to anticipate pedestrian and cyclists movement. Alain*

The New York Times

[Uber’s C.E.O. Plays With Fire](#)

M. Issac, Apr 23, "... In a quest to build Uber into the world’s dominant ride-hailing entity, Mr. Kalanick has openly disregarded many rules and norms, backing down only when caught or cornered. He has flouted transportation and safety regulations, bucked against entrenched

competitors and capitalized on legal loopholes and gray areas to gain a business advantage. In the process, Mr. Kalanick has helped create a new transportation industry, with Uber spreading to more than 70 countries and gaining a valuation of nearly \$70 billion, and its business continues to grow. But the previously unreported encounter with Mr. Cook showed how Mr. Kalanick was also responsible for risk-taking that pushed Uber beyond the pale, sometimes to the very brink of implosion.

Crossing that line was not a one-off for Mr. Kalanick. According to interviews with more than 50 current and former Uber employees, investors and others with whom the executive had personal relationships, Mr. Kalanick, 40, is driven to the point that he must win at whatever he puts his mind to and at whatever cost — a trait that has now plunged Uber into its most sustained set of crises since its founding in 2009.. " [Read More](#) *Hmmmm... Always interesting.*
Alain

[On the More Technical Side](#)

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



Artur Filipowicz'17, [Virtual Environments as Driving Schools for Deep Learning Vision-Based Sensors in Self-Driving Cars](#), April 2017

Nayan Bhat'17, [DeepFollowing: Vision-Based Distance Estimation on Synthetically-Generated Driving Video using 3D Convolution](#), April 2017

Antigone Hope Valen'17, [The ATaxi Revolution: Autonomous Vehicle Implementation and Ride-Sharing Optimization in the United States and China](#), April 2017

Keith Gladstone'17, [The Search for the Sustainable Fleet: Driverless Taxi System Simulations](#), April 2017

Rebeca De La Espriella'17, [Developing the Regulatory Environment for Autonomous Vehicles: Historical Lessons for the Socio-technical Transition](#), April 2017

Thomas P. Byrne '17, [Commercial Auto Insurance Risk Management Strategies](#), April 2017



Kara Kockelman, [An Assessment of Autonomous Vehicles Traffic: Impacts and Infrastructure Needs](#), April 2017

Kara Kockelman, [Appendices, Ensuring the Benefits of a Connected and Auto](#), April 2017

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



[Elon Musk elaborates on autonomous ride-sharing, says will eventually be cheaper than public transport](#)

F. Lambert, May 1, "...Musk actually ties his vision of shared autonomy with his new tunnel boring project because he sees the advent of car-sharing with autonomous driving ultimately increasing traffic – and tunnels can alleviate that. He said during this interview at TED:..." [Read More](#) *Hmmmm... Part of the problem with TED talks. They tend to be Half-baked. Sharing allow Person-mile traveled to increase without necessarily increasing Vehicle-miles traveled. Tunnels??? Through mountains and under some parts of some cities (Munich, Montreal, ...Maybe; Between cities... Not needed. The roads are still empty most of the day and all of the night. Alain*



[Watch Elon Musk's TED talk on his grand tunnel plan, self-driving cars and more](#)

D. Etherington, May 1, "... Watch demonstration video for his vision of how a [network of underground tunnels](#) might ease traffic concerns..." [Watch TED Talk](#) *Hmmmm... Probably should be in C'mon Man! Alain*

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

Calendar of Upcoming Events:



[AV Policy Series](#)

May 15, 2017

**American Institute of Architects,
1735 New York Ave. NW, Washington, D.C.**



[Princeton SmartDrivingCar Summit](#)

May 17 & 18, 2017

Princeton University

Princeton, NJ

[Save the Date](#)