

SMART DRIVING CARS



<http://smartdrivingcar.com/LandUse-061516>

[Friday, June 17, 2016](#)



[Planning for the Autonomous Vehicle Revolution](#)

J. DeAngelis, June 15, "...autonomous vehicles (AVs) also stand to disrupt the norms of both transportation and land use planning. According to a new report from the Florida State University Department of Urban & Regional Planning titled *Envisioning Florida's Future: Transportation and Land Use in an Automated Vehicle World*, AVs may exert as great an influence on the built environment as the mass production of the automobile did in the early to middle 20th century.

Parking minimums, street design, rights of way, development demand, signage and signalization, building siting and design, access management, and their accompanying norms and standards have the potential to change dramatically over the next 40-50 years.a..." [Read more](#) *Hmmm.... Land-use implications are THE big unknowns. See report next. Alain*



[Envisioning Florida's Future: Transportation and Land Use in an Automated Vehicle Automated Vehicle World](#)

T. Chapin, et al. April 2016, "...Key themes from these discussions included that AVs will require narrower right-of-ways and travel lanes; influence the location, form, and amount of parking; impact the mobility of bicyclists and pedestrians; declutter urban environments through reduced signalization and signage; and provide opportunities for redevelopment on now unnecessary parking lots and excess right-of-ways. In this way, this study affirms that AVs are expected to drastically affect the design and functioning of the built environment and provides a starting point for public and private stakeholders to prepare for these impacts. While further research will be necessary, this study provides preliminary guidance for the policy decisions and infrastructure investments necessary to leverage AV technology to create a transportation system that is safer and more efficient than ever before and an urban environment built upon principles of sustainability and human-centered design..." [Read more](#) *Hmmm... A thoughtful investigation with a recognition that the surface is barely being scratched. If this technology revolution is akin to going from the horse to Henry Ford then the land-use/quality-of-life change for Florida may be akin to going from swamp land to today's Kissimmee! Alain*

The Washington Post [How to get a free ride in a self-driving shuttle this summer](#)

M. McFarland, June 16, "Local Motors officially unveiled its self-driving shuttle Thursday and said it will begin giving free rides to the public in Maryland this summer.

The electric vehicle, which seats 12, will drive slowly on public roads in National Harbor, Md., operating at speeds between 3 and 8 mph, according to Local Motors chief executive Jay Rogers. He characterized Olli as a "friendly neighborhood robot" that isn't capable of traveling on highways...." [Read more](#) *Hmmm... looking to be the first. No problem with starting slowly. We are just at the beginning :-)* See also [Wired](#) *Alain*

The Washington Post [Why back-up cameras haven't stopped drivers from backing into stuff](#)

J. Bogue, June 16 "With or without eyes in the back of their heads, drivers keep hitting things.

Despite the growing prevalence of back-up cameras, federal data shows that this technology hasn't significantly cut down on cars backing into people and causing them harm..... In 2003, three in 278 auto models came with back-up cameras. By this year, only 20 models out of 362 industry-wide don't have them....

the cameras reduce blind zones while in reverse by 90 percent, according to a study by the Insurance Institute for Highway Safety -- but they keep hitting things...." [Read more](#) *Hmmm... Couple of things... "Nice" that NHTSA will mandate them in 2018 once all models have them anyway. Way to go NHTSA! (Bronx cheer!) Also, this points out that "ability to see better" is not good enough, nor are warnings. Automated rear braking is what is needed (I'm sure NHTSA will mandate that in "2026" when all models have it). Alain*

theguardian [Insurer launches UK's 'first driverless car policy'](#)

J. Kollwe, June 7, "The driverless policy has additional features to a standard one. Customers will be covered for loss or damage in case of: failure to install vehicle software updates and security patches, subject to an increased policy excess; satellite failure or outages affecting navigation systems, or failure of the manufacturer's vehicle operating system or other authorized software; loss or damage caused by a failure to manually override the system to prevent an accident should the system fail; and loss or damage if the car gets hacked...." [Read more](#) *Hmmm...This is a good start. Insurance can make all of this happen. Alain*



[Skeptics of Self-Driving Cars Span Generations](#)

J. Quain, June 16 "“I have no problem letting a car take control,” said Jeffrey Miller, an associate professor of engineering practice at the University of Southern California. “But having a car take my kids to school? You’re talking about people who don’t have the ability to take over if something goes wrong. I’m not that comfortable with it.”...(*Hmmm... Yet you let your kid ride a school bus???*) more than two-thirds of the experts in the study said they weren’t ready to have a robotic car play nanny, giving the concept a 3 or lower. Not exactly a ringing endorsement from engineers of the state of the art in self-driving (*driverless*) cars....

“There are people who want to hop into the back seat and go to sleep,” said Ken Washington, vice president of Ford’s research and advanced engineering division, “and others who say, ‘No robot is going to drive my car.’”

Most of the researchers and automotive experts say driver attitudes will shift as more advanced safety and semiautonomous systems are introduced into new models. Education about how the systems work and their benefits will also help..." [Read more](#) *Hmmm... Way too early to get meaningful answers to these questions. No one wanted to ride an elevator without an operator nor wanted to ride in a horseless carriage nor fly in an airplane. Alain*



[For Driverless Cars, Citylike Test Sites Offer the Unpredictable](#)

N Boudette, June 4 "...In addition to its Mcity effort, the University of Michigan is a partner in a project to set up a much more complex site about 10 miles away in neighboring Ypsilanti. It will be called the American Center for Mobility and will comprise 335 acres that were once part of G.M.’s Willow Run plant. During World War II, it was the site of a famed bomber factory. Mr. Maddox has been named the center’s chief.

Unlike Mcity, this larger site will have long stretches where autonomous cars can be tested at highway speeds and space for creating a variety of complex intersections. Its existing roadways include overpasses and bridges.

Ford is interested in potentially using the Willow Run facility, said Randy Visintainer, Ford’s director of autonomous vehicle development. “It is something we would probably have to create if it didn’t exist,” he said..The challenge, by all accounts, is enormous..." [Read more](#) *Hmmm...Tried to do one at Fort Monmouth, now scaled back to doing it at Princeton's Forrestal Campus and via Virtual Reality. Issues are "corner cases". Alain*



[NEMPA/MIT STUDY: CONSUMERS WANT SOME AUTONOMOUS](#)

[FEATURES, WANT TRAINING TO LEARN TO USE THEM](#)

C. Fitzgerald, June 5 "...For the most part, the consumers surveyed were relatively happy with the technology already in their cars. Well over half reported positive associations with the technology: 28% of participants are very happy with the technology, and an additional 42% like most of the features.

When asked about levels of autonomy, consumers broke out into very distinct age groups. The highest percentages of consumers surveyed — regardless of age — responded that they're interested in autonomous technologies that help the driver, meaning technologies that may apply full braking force when a car stops short, or guides the driver slightly if they weave out of a lane. Most significantly, more than half of consumers in the 65 to 74 and 75-plus age groups indicated that they would be interested in owning cars with this type of technology..." [Read more](#) *Hmmm...See next posting for original paper. Not easy to predetermine what consumers will want, especially when some of the options are conceptual (e.g. "full autonomy"). Alain*



[Autonomous Vehicles, Trust, and Driving Alternatives: A survey of consumer preferences](#)

H. Abraham et al., June 2016 "... To effectively develop and deploy systems that enhance driver safety and mobility through greater degrees of automation, consumers' understanding, trust and desire for these systems will need to be developed to support the marketplace. For consumers to optimally leverage the advances of many technologies, adequate technology training may be required. Little is established about how consumers are currently acquiring this training for new vehicle technologies. What is not yet fully understood, is how drivers across the lifespan acquire information about technological and service alternatives, view today's automotive technologies, see future automation systems supporting them, look to learn about these systems, and consider options for alternative transportation. To explore these topics, a survey instrument was developed to gain deeper insight into key questions including:

1. Are consumers satisfied with technology that is already in their vehicle?
2. How are consumers learning about in-vehicle technologies? How would they prefer to learn?
3. Are consumers willing to use various alternatives to driving? Do they currently use them?
4. Are consumers willing to use automation in vehicles?
5. Are older adults willing to use autonomous vehicles and / or alternatives to driving in order to increase mobility?..." [Read more](#) *Hmmm...A good attempt to try to resolve answers to these questions; however, the eventual reality of these systems will likely be quite different than the current "Sunday supplement" that is at-best the current perception of these systems. Did anyone really have to be "taught" to use an automated people mover at airports? Whatever! :-) Alain*



[Google Self-Driving Car Project Monthly Report](#)

May, 2016 "Down with the tyrannical horn: Teaching a self-driving car to honk..Given the time we're spending on busy streets, we'll inevitably be involved in collisions; sometimes it's impossible to overcome the realities of speed and distance. Thousands of minor crashes happen every day on typical American streets, 94% of them involving human error, and as many as [55% of them go unreported](#). (And we think this number is low; for more, [see here](#)..) " [Read more](#)
Hmmm...Always good reading. (Compared to [below from GM](#) it is out-of-this-world). Alain



[Tesla offered to share all its Autopilot data with the US](#)

[Department of Transport](#)

F. Lambert, June 3, "Tesla's CEO added that for the regulators to approve an [autonomous driving system](#), it would have to prove to be at least two times safer than a human or maybe even 5 to 10 times. Earlier this year, he said that based on early data from the Autopilot program, the system lowers [the probability of having an accident by 50%](#).." [Read more](#)
Hmmm...Always good promotion from Elon. (Compared to [below from GM](#) it is out-of-this-world). Alain



[Facebook Ride Sharing Group Replaces Uber And Lyft In Austin](#)

S. Hamley, June 8, "...Nature abhors a vacuum, so they say, and so does the digital economy. Within days of the announcement that Uber and Lyft would cease operations in Austin, a group calling itself Arcade City Austin/Request A Ride organized itself on Facebook. Started by Christopher David and Eric Green, the group has over 32,000 members today.

According to TechCrunch, when members need a ride they post their current location and destination on Facebook. Within minutes, potential drivers respond with an estimated time of arrival, a proposed fee for the ride, and a phone number where they can be contacted. Once an agreement has been made, group members delete the request...." [Read more](#) *Hmmm...If Uber (and Lyft) have so little "stickiness", why is their valuation so high???. Alain*

Some other thoughts that deserve your attention



[Adding Teen Driver to Auto Policy Yields Average 79% Premium Rise](#)

A. Carrns, June 17 "...Families adding a teenage driver to their auto insurance policy will see their premium increase by an average of 79 percent, the [latest analysis from insuranceQuotes.com](#) finds. That's a bit lower than the average increases seen in recent years, but it is still a hit to the wallet...

The higher premiums reflect teenagers' greater likelihood of being involved in an accident. Research shows that [they have the highest crash rate](#) of any group in the United States.." [Read more](#) *Hmmm...and the data are from a 2012 report. Just imagine what the crash rate is now that they all have cell phones. Amazing that the premium increase isn't greater. The solution is intuitively obvious to the most casual observer: automated collision avoidance systems! :-)*
Alain



[Tesla's weird week](#)

June 10, "...In a span of just 72 hours, the Model S was accused of having major suspension issues, the NHTSA supposedly got involved, Tesla explained there is nothing wrong and the NHTSA isn't actually investigating the issue and Elon Musk tweeted that the whole thing was a giant conspiracy.

Woah. OK, let's take a step back and dissect this..." [Read more](#) *Hmmm...Every week is a weird week. Alain*

[On the More Technical Side](#)

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

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



[The future of autonomous cars Faraday Future aims to test self-driving cars in Michigan](#)

Jun 13, 2016 "Stephen Carlisle, President and Managing Director, General Motors of Canada joins BNN to discuss why GM is expanding its autonomous vehicle engineering and software development work in Canada." [Read Video](#) *Hmmm...A Canadian view from GM's president. Connected car??? Hiring how many when??? (Have offer from Facebook/Google/Apple/Msft/Amazon/GM; likelihood of choosing GM is epsilon). How many lines of code?? Dedicated lanes for autonomous vehicles??? Not a whisper about safety (continued denial), GM at the top still doesn't really get it. Alain*



[Faraday Future aims to test self-driving cars in Michigan Technical Assistance Events for Concept Development Phase](#)

Jun 13, 2016 "[Faraday Future](#) isn't just talking a big game when it mentions plans for autonomous features in its cars. Michigan's Department of Transportation tells the Detroit News that FF not only asked about how to apply for plates that let it test self-driving cars, but has applied for three manufacturer plates since. While the company isn't confirming anything (the plates are to test "prototypes and features," it says), it's safe to say that at least one of those vehicles won't always have a human at the wheel..." [See more](#) *Hmmm...Just enormously skeptical. Seems like way too much lipstick here (, but what do I know?). Alain*



[Technical Assistance Events for Concept Development Phase](#)

June 2016 "The USDOT has selected three pilot sites, where teams are in the process of conducting Phase 1 Concept Development activities in order to move towards deployment and operations phases. A series of USDOT-sponsored technical assistance events has been developed to assist not only the three selected sites, but also other early deployers of connected vehicle technologies to conduct Concept Development activities...." [See more](#) *Hmmm...Infrastructure that is "deployed" tends to have an expected life of 40+ years. Is this connected vehicle stuff already essentially obsolete? Is there a viable business case? I guess that is why it is a (central government) deployment rather than a market adoption. Alain*

Calendar of Upcoming Events:



Connected & Automated Vehicle Conference

What States Need to Know

June 21 & 22, 2016

Maritime Institute (near BWI), Lincoln Heights, MD

[http://i95coalition.org/wp-content/uploads/2014/09/
I95CCAVConferencePacketREV4-15-16.pdf?dd650d](http://i95coalition.org/wp-content/uploads/2014/09/I95CCAVConferencePacketREV4-15-16.pdf?dd650d)

Congressman Dan Lipinski Cordially Invites You:

Policy Roundtable --- "The Road Ahead: Developing Policies to Make Connected & Automated Vehicles a Reality"

June 22nd, 2016 --- 2:30 PM to 4:00 PM

2253 Rayburn House Office Building (T&I Committee Hearing Room)