

SMART DRIVING CARS

<http://smartdrivingcar.com/5.4-Ride-Share-022417>

4th edition of the 5th year of SmartDrivingCars

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THE WALL STREET JOURNAL.

WSJ

[Google's Waze Plans Expansion of Ride-Sharing Service](#)

J. Nicas, Feb 22, " Google is planning to dramatically expand a carpool service on its popular navigation app Waze, setting the tech giant on a collision course with the ride-sharing industry.

Google is targeting launches of its Waze carpool service in several U.S. cities and Latin America over the next several months after testing in Israel and the San Francisco Bay Area met expectations, Waze chief Noam Bardin said in an interview.

The growth of Waze's carpool service puts Alphabet Inc.'s Google more directly in competition with Uber Technologies Inc., the startup that pioneered the ride-sharing industry, growing to a juggernaut with a \$68 billion valuation. Google and Uber were once allies, but they are increasingly becoming rivals in areas such as mapping and self-driving cars.

"Can we get the average person on his way to work to pick someone up and drop them off once in a while? That's the biggest challenge," Mr. Bardin said...." [Read more](#) *Hmmm...That is the \$64,000 question. One thing is certain... the App will need to be super simple on both ends (rider and ridee) and totally non-sketchy. The key is to find other correlations besides going between the same places at about the same time that would make the ride-share non-sketchy.*
Alain

**Bloomberg
Technology**

[Alphabet's Waymo Alleges Uber Stole Self-Driving Secrets](#)

M. Bergen, Feb 23, "It took Alphabet Inc.'s Waymo seven years to design and build a laser-scanning system to guide its self-driving cars. Uber Technologies Inc. allegedly did it in nine months.

Waymo claims in a lawsuit filed Thursday that was possible because a former employee stole the designs and technology and started a new company....Anthony Levandowski, a former manager at Waymo, in December 2015 downloaded more than 14,000 proprietary and

confidential files, including the lidar circuit board designs, according to the complaint. He also allegedly created a domain name for his new company and confided in some of his Waymo colleagues of plans to “replicate” its technology for a competitor....” [Read more](#) *Hmmm...This is very serious. So unfortunate. :(Alain*



[Delivering the first autonomous vehicle on public roads](#)

[without steward](#)

Press Release, Feb 20, "From 2018 2getthere’s autonomous ParkShuttle in the city of Capelle aan den IJssel will be transformed in the world’s first autonomous system operating on public roads without safety driver or steward. This world first, follows the first autonomous vehicle pilot (Schiphol Airport, 1997), the first urban autonomous vehicle application (Capelle aan den IJssel, 1999), the first mixed traffic demonstration with an autonomous vehicle (Delft, 2004) and the world’s first Personal Rapid Transit system (Masdar City, 2010). Last November the Metropolitan region Rotterdam The Hague (MRDH) announced the extension of the current operating concession of Connexion through 2018. The city of Capelle aan den IJssel and 2getthere at that time already expressed their ambition to renew the system and extend the route using existing public roads. This ambition is now becoming reality with help of an investment of 4,25 million Euro on behalf of the ‘Verkeersonderneming Rotterdam’, a public-private-partnership between the city of Rotterdam, MRDH, the ministry of Infrastructure and the Port of Rotterdam....” [Read more](#) *Hmmmm...While it hasn't happened yet, it is scheduled to happen and this schedule has substance and is not simply a publicity stunt. Congratulations Robert! Alain*



[Tesla Offering Customized Auto Insurance to Customers in Asia](#)

Feb 23, "...Adam Jonas asked: “On insurance, if your cars prove to be as much as 90 percent safer than other cars on a per-mile basis – as I think you’ve alluded as a reasonable target medium-term – and if insurance companies only offer your customers, say, a piddling 5 percent discount versus a comparably priced car, would you consider offering a service or product like P&C insurance directly to Tesla owners from your own platform and your own stores?” ... *Great question, Adam!*

Jon McNeill, Tesla’s president of global sales and service, told an analyst that “the majority of Tesla cars are sold [in Asia] with an insurance product that is customized to Tesla.” “It takes into account not only the Autopilot safety features, but also the maintenance cost of the car,” McNeill said. “So, it’s our vision in the future that we’ll be able to offer a single price for the car – maintenance, and insurance – in a really compelling offering for the consumer. And we’re currently doing that today.” [Read more](#) *Hmmmm...Perfect answer. Is insurance awake???* Alain



[Self-Driving Cars Might Need Standards, but Whose?](#)

J. Quain, Feb 23, "The PC revolution, the internet boom, the smartphone economy — all were propelled along by a common set of technological standards. So will a standard platform or operating system be necessary to get autonomous cars rolling, too?...Riding in Hyundai's self-driving Ioniq, for example, is like taking a Sunday drive with your grandmother. The car is extremely adept at staying squarely in its lane without ping-ponging back and forth, but it is also cautious in the extreme, stopping nine feet short of crosswalks and stubbornly refusing to go forward if a pedestrian looks poised to step off the sidewalk. It is behavior that can ignite road rage in nearby human drivers.

By comparison, Delphi's test car, which uses an Intel computing platform installed in an Audi Q5, is more aggressive. It can easily merge into highway traffic and negotiate complex intersections. However, it treats pedestrians with less deference, taking right-hand corners more quickly — even though pedestrians may be contemplating entering the crosswalk... [Read more](#)

Hmmmm...Basic Capitalism with little government intervention :-) Alain

Automotive News

[Ford's dozing engineers side with Google in full](#)

[autonomy push](#)

K. Naughton, Feb 20, "...“Level 3 may turn out to be a myth,” Waymo CEO John Krafcik said of autonomous cars that require human intervention. “Perhaps it’s just not worth doing.” Ford and Waymo’s views show there’s a rift developing among the creators of autonomous cars over what role -- if any -- humans should play when cars begin driving themselves. Most automakers believe that, at least initially, people must supplant the robot **to avoid crashes in complex situations**. Others contend that asking an inattentive human to respond in seconds to a life-or-death situation is a recipe for disaster..." [Read more](#) *Hmmmm...Since when have we all be trained "to avoid crashes in complex situations" We aren't SuperHeros. The whole focus of the automation is to avoid getting into complex situations in the first place and to degrade/fail safely in the rare instances.* Alain

Automotive News

[When driverless cars call for backup: Suppliers](#)

[develop redundant systems for safety](#)

D. Sedgewick, Feb 18, "So engineers are doing the next best thing: developing backup systems for the brakes, steering, sensors and computer chips that guide a self-driving vehicle. The idea is to give vehicles secondary systems that will allow them to safely pull over in case of a catastrophic equipment failure. But to keep a lid on redundant costs, suppliers are developing components that can be programmed to handle more than one function.." [Read more](#)

Hmmmm...Right-on! Alain

electrek

[GM is reportedly deploying a fleet of thousands of autonomous Bolt EV with Lyft as soon as next year](#)

F. Lambert, Feb 19, "...General Motors Co plans to deploy thousands of self-driving electric cars in test fleets in partnership with ride-sharing affiliate Lyft Inc, beginning in 2018, two sources familiar with the automaker's plans said this week." GM invested \$500 million in Lyft just over a year ago and has said in the past that self-driving vehicle deployment would start with the ride-sharing service..." [Read more](#) *Hmmmm...It will be getting very interesting. Alain*

ValueWalk

[Auto Insurance Voices Caution As Self-Driving Cars Near](#)

Sentio, Feb 21, "We analyzed over 9 million financial documents, covering more than 10,000 companies across the globe, for mentions of the self-driving car theme. We found that interest in self-driving cars has grown 8.5x in the past two years, but suspect that there is much more interest to come...."

Swiss Re, a Swiss reinsurer, has regularly mentioned self-driving cars as a major risk since a 2013. It sees a substantial reduction in the growth of the car insurance market, and argues that diversification will be key to survival. From their 2015 annual report: "Autonomous cars [...] are [...] a highly disruptive technology. [...] Swiss Re held various events since 2013 with] experts from car manufacturing and technology, safety and legal specialists. [...] this will present many new challenges to the way we do business and how we view and manage risk, retail insurance and liability. [...] 1. Autonomous cars will improve safety; 2. The sharing economy will drive autonomous car adoption; 3. They are more climate-friendly and can reduce energy reliance; 4. Consumers will begin to embrace the technology; 5. Regulation and the law will adapt, slowly; 6. Cyber risk will increase; and 7. Autonomous cars will affect liability and tort cases. Although it is uncertain how legal and regulatory issues will play out, it is clear that our role as re/insurers will change considerably. Many of these changes will also create new opportunities for businesses who quickly adapt and diversify their products and services so as to target new market segments."...[Read more](#) *Hmmmm...I'm pleased that at least Swiss Re believes..."* Many of these changes will also create new opportunities for businesses who quickly adapt..." :-)
Alain

START-UP ISRAEL

[Mobileye installs anti-crash tech on NYC cars](#)

S. Solomon, Feb 19, "...From this month, 4,500 for-hire vehicles in New York City will feature Mobileye's vision sensors and technologies to identify potential dangerous scenarios in real time, and alert drivers about impending collisions, giving them time to react, Mobileye said in a statement..." [Read more](#) *Hmmmm...Unfortunately these are just warning as opposed to doing. Hopefully their false-positives won't cause New Yorkers to turn them off. Alain*

Reader's Comments..



[with respect to my comment in the previous issue:](#)

Read more [Hmmm..."Automated Collision Avoidance" or anything having to do with 'Safe-driving Cars' is not mentioned anywhere in the Press Release. One of us is missing something very fundamental here!! So depressing!! :-\)](#) Alain... Steffen Bartschat wrote: *The 6th of the 8 NSC 'callings' on a [road to zero deaths](#) is indeed:*

From **Doug Gettman**... "The NSC release does have some discussion of automated braking, blind spot warning, etc. electronic warning systems "...[Standardize and accelerate](#) into the fleet automotive safety technologies with life-saving potential, including blind-spot monitoring, automatic emergency braking, lane departure warning and adaptive headlights..." Furthermore, NSC's Position/Policy Statement on Automotive Safety Technology is strong; however, I firmly believe that it should be much stronger. It should be #1 on their list and it should go beyond 'Warnings' and "Taking partial control" to taking Full control, "...to avoid or lessen the severity of crashes if a driver does not respond quickly enough." But why the timidity here???

Alain
From **Amitai Bin-Nun**... "you say about ADAS technologies that they have "a very attractive ROI". Can you point me to any literature on this?...

For buses :http://orfe.princeton.edu/~alaink/SmartDrivingCars/PDFs/LutinKornhauser_2016TRB_BusACAS.pdf

Trucks are similar because the little liability data that I've been able to find is similar to that of buses, if not even higher.

For cars one needs to look at the cost of auto insurance about 80% goes to pay liabilities. But insurance only pays about 50% of the cash cost of crashes (of which about 75% is eaten by individuals through deductibles and uncovered) and NHTSA has estimated that the societal costs of crashes is twice the cash costs.

Given that Tesla data shows that their ACA reduces crashes by 40% and that component of AutoPilot costs ~\$1000. And that you pay \$1000 for auto insurance, then

Expected liability w/o ACA is \$800

Reduction by 40% saves insurer \$320/yr. RoI is a little over 3 years for the insurer

The car owner saves \$240/yr in self insurance dollars. (RoI) a little over 4 years

But if you add the pain and suffering, (which is borne by the individual) that amounts to 40% of 2x\$800 which is \$640/ yr of pain and suffering. Or an RoI of less than 2 years.

For the individual in total it is \$960/yr so the RoI is basically 1 year.

If you are a corporation that actual suffers the real & societal cost if one of its employees is involved in a crash then the RoI for a corporation (or any responsible entity that can't run away from its liabilities) is really 1 year.

And if they largely self-insure then the savings is \$1,200/yr and the RoI is less than one year!!!

Alain