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Elina Rakhlin
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Self-driving cars have been an appealing futuristic goal since before KITT on Knight Rider. The United States Department of Defense created the Defense Advanced Research Projects Agency (DARPA) to promote the development of self-driving cars. Congress has allowed DARPA to host a grand challenge competition and award cash prizes for autonomous vehicles that could drive a 150-mile route through the Mojave Desert.[1] Sebastian Thrun, former director of the Stanford Artificial Intelligence Laboratory and co-inventor of Google Street View, developed the robotic vehicle with his team in Stanford that won the 2005 DARPA Grand Challenge.[2] Thrun formerly led the Google X Project that has transformed their autonomous prototype into Google's self-diving car today.

Self-driving cars are enticing for states in the race for technological advancement. Google's self-driving car supposedly reduces accident rates and improves fuel economy. They achieve those goals by taking human beings out of the driving equation. During the first few stages of Google's self-driving car, human beings were essential in the driver's seat, not to drive, but to retake control the car in case of malfunction.[3] The car provided an override function that allowed humans to regain control of the car by stepping on the brake or turning the wheel, similar to cruise control systems prevalent in cars today.[4] As Google has progressed their model, they have revealed a prototype that does not require a person in the driver's seat at all.[5] Google faced unprecedented challenges with state legislation that required a driver in the vehicle at all times. New York state in particular, required a hand on the wheel at all times.[6] With an autonomous vehicle that eliminates the need for any human interference, there is a need for new laws that comports with the technological advancement.

As human interference becomes obsolete in the use of autonomous cars, state regulations are being repealed. Most states don't expressly prohibit self-driving cars, but that does not mean that they are entirely lawful.[7] Various cities and states have already amended current legislation or adopted new legislation that would allow for not only the testing of autonomous cars in the state, but for the lawful driving of them. States have already allowed for the testing of these cars to compete in the technological race. Nevada, Florida, California, Washington D.C., Michigan, Idaho, and Tennessee are just some of the states that have engaged in legislative reformation to allow for testing of autonomous cars on public roads.[8] In addition to allowing for testing, California for example, will issue drivers' licenses specifically for autonomous cars in the hopes of dealing with any legal barriers once the cars become fully operational. Similarly, Florida has taken the idea of self-driving cars to an extreme and amended the texting-while-driving statute to allow for it in autonomous vehicles.[9] If legislative reformation continues like the allowance of texting while operating an

autonomous vehicle, this could be a slippery slope for other policy concerns such as drunk driving or falling asleep at the wheel.

Legislation has rapidly undergone changes, but the rush towards autonomous cars is concerning considering all of the trust put into the safety of them. The past six years that this project has been in place, Google's self-driving car has reported as having been involved in "17 minor incidents".[10] Google has chalked up these accidents to other cars or human error.[11] The self-driving car has completed roughly 1.5 million miles since 2009 and never exceeds speeds of 25 mph.[12] Google wants to ensure that they reduce accident rates and the only way they seem to do that, is by eliminating any human element in driving altogether. A human-less car once seemed to be impossible to achieve given the existing regulation in place, but states have become more accommodating to the idea. As previously mentioned, New York has a "one hand" on the wheel traffic law that should prevent any autonomous vehicle from hitting the roads. However, that law has since been repealed as of 2015. This should make the testing of autonomous cars a huge possibility in New York as Google progresses. Additionally, there has been some sort of agency intervention as the National Highway Traffic Safety Administration released a preliminary statement of policy concerning automated vehicles.[13] They speak to the possibility of issuing specific drivers' licenses for autonomous cars and mandate a person in the car who understands how to retake control of the vehicle if the need arises.[14] The agency speaks to the idea of a human being as a necessary factor in autonomous vehicles. However, since the progression of these cars is leading towards no human intervention of the vehicle at all, the agency will probably need to reissue a statement of enforce some sort of regulation that addresses that factor.

Autonomous cars sound ideal in theory as this generation heads towards a technologically powered future. However, technology creates legal barriers and legislators are aware of the liabilities in store. If hover-boards created an uproar among the general public and forced state officials to regulate, autonomous cars are going to change legislation in unprecedented ways. Google has predicted making these cars available to the public as soon as 2020. With various states altering the rules of the road to allow for autonomous vehicles, there should be a hard line rule that legislatures cannot cross in order to avoid a floodgate. With the need for human interference obsolete in the use of autonomous cars, state regulations are being repealed without the afterthought: what if the self-driving cars malfunction and human control is necessary? If texting is legal while riding in an autonomous vehicle, states should be wary before adopting rules that would allow for drinking or falling asleep behind the wheel of an autonomous car—if they have wheels in the future.

[1] http://robots.stanford.edu/papers/thrun.stanley05.pdf.

[2] *Id.*

[3] http://www.nytimes.com/2010/10/10/science/10google.html?_r=1.

[4] *Id.*

[5] Liz Gannes, *Google's New Self-Driving Car Ditches The Steering Wheel*, Recode (May 27, 2014), http://recode.net/2014/05/27/googles-new-self-driving-car-ditches-the-steering-wheel/.

[6] New York City, N.Y., Rules, Tit. 34, § 4-12; McKinney's Vehicle and Traffic Law § 1226.

[7] http://www.nytimes.com/2015/05/03/business/hands-free-cars-take-wheel-and-law-isnt-stopping-them.html.

[8] http://www.reuters.com/article/2012/05/08/uk-usa-nevada-google-idUSLNE84701320120508; http://www.vrworld.com/2012/09/27/governor-brown-signs-california-driverless-car-law-at-google-hq/; http://detroit.cbslocal.com/2013/12/28/new-law-allows-driverless-cars-on-michigan-roads/; http://www.cdapress.com/news/local_news/article_c6e1b189-66da-5b53-83fd-91cf8a431f84.html; http://dcclims1.dccouncil.us/lims/legislation.aspx?LegNo=B19-0931; http://wapp.capitol.tn.gov/apps/BillInfo/default.aspx?BillNumber=HB0616&GA=109.

[9] John W. Terwilleger, *Navigating The Road Ahead: Florida's Autonomous Vehicle Statute And Its Effect On Liability*, 89-AUG Fla. B.J. 26 (July/August 2015).

[10] http://www.cnbc.com/2015/12/02/how-google-driverless-cars-deal-with-emergencies.html.

[11] http://www.nytimes.com/2015/09/02/technology/personaltech/google-says-its-not-the-driverless-cars-fault-its-other-drivers.html?_r=1.

[12] http://www.wired.com/2016/01/google-autonomous-vehicles-human-intervention/.

[13] National Highway Traffic Safety Administration, *Preliminary Statement of Policy Concerning Automated Vehicles* (May 30, 2013), http://www.nhtsa.gov/About+NHTSA/Press+Releases/U.S.+Department+of+Transportation+Releases+Policy+on+Automated+Vehicle+Development.

[14] *Id.*