

# **A COMPARATIVE STUDY OF LAWS ON AUTONOMOUS VEHICLES**

## **Fourth Annual Conference on Governance of Emerging Technologies: Law, Policy and Ethics**

Dr. Yaniv Heled

Georgia State University College of Law



# The Project

- & 12 years since DARPA's \$1M challenge and almost 8 years since **Anthony Levandowski's "Pribot"**
- & 5 years since the passage of the first autonomous vehicle testing and licensing law in Nevada
- & Examine autonomous vehicle laws In the U.S. (federal, state, and local), Canada, Europe, Australia, Korea, and Japan.



# Legal Developments Examined

& Laws, regulations, independent executive action, and local ordinances:

- ⌘ Study commissions
- ⌘ Testing
- ⌘ Licensing
- ⌘ Tort implications
- ⌘ Criminal implications
- ⌘ Other (taxes, privacy, cybersecurity, etc.)




# Enacted U.S. Laws & Regulations

Jurisdiction / Country / State / Local Authority	Enacted Legislation (L) / Executive Action (EA) / Regulation (R) #	Date	Autonomy Level	Issues addressed					
				Study Commission	Testing	Licensure	Tort aspects	Criminal aspects	Other Issues
Federal	Preliminary Review of Federal Motor Vehicle Safety Standards for Automated Vehicles	2013	3		+				
	Review of Federal Motor Vehicle Safety Standards for Automated Vehicles	Expected 2nd Half of 2016	4		+				
Arizona	(EA)	8/25/15			+				
California	(L) SB 1298	9/25/13			+				
	(R) (seems to be the only state to have issued actual regulations)	5/19/14	3		+				
District of Columbia	(L) B 19-0931	4/23/13	3		+		Exemption for manufacturers of converted vehicles		
Florida (the only state that does not require a person at the wheel during testing)	(L) CS/HB 1207	4/16/12	3		+	+			
	(L) HB 7027	4/4/16	4		+	+	Exemption from liability to manufacturers whose cars were converted by third parties	Allows for a TV that the driver can watch or use of electronic display if in autonomous mode...	
Georgia	(Resolution) HR 1265/CSFA	3/18/14		+					
Michigan	(L) SB 169	12/20/13	3	+	+				
	(L) SB 663	12/23/13					Exemption for manufacturers of converted vehicles		
Nevada (the first and only to date to have issued actual licenses to certain models by Audi, Kia, Mercedes Benz, and Daimler (truck!))	(L) AB 511	6/17/11			+				
	(L) SB 140	6/17/11						Exception for operators of Avs while vehicle is in autonomous mode	
	(L) SB 313	6/2/13	3		+		Exemption for manufacturers of converted vehicles		
	(R) NAC-482A	Apr. 2014	3 (testing) / 4 (sale)		+	+			
North Dakota	(L) HB 1065 (not a statute)	3/20/15		+					
Tennessee	(L) SB 598	4/24/15							
	(L) SB 2333	3/22/16						Allows for a TV that the driver can watch or use of electronic display if in autonomous mode...	
	(L) SB 1561	4/27/16	3		+	+			Per mile tax for Avs; information privacy (section 6)
Utah	(L) Utah Code Ann. § 41-26-102	5/10/16		+					
Virginia	(Executive action)	6/2/15		+					



# Autonomy Levels

When talking about automatic and autonomous driving technology, we usually refer to the following levels of autonomy:



Autonomy	Who is in control?	Example
Level 0	The driver is in complete and sole control at all times.	Reverse Collision Warning
Level 1	The driver has overall control, but can choose to cede limited authority.	Cruise Control
Level 2	The driver has overall control, but can choose to cede limited authority.	Pre-crash warning and head on collision avoidance system
Level 3	Driver can cede full control of all safety-critical functions under certain conditions and regain control from the vehicle.	Commuter/ Highway Chauffer
Level 4	Vehicle performs all safety-critical driving functions and monitor roadway conditions for an entire trip. <b>Human presence is optional.</b>	Autonomous/ Unattended Driving

# Some Numbers

Only 10 states and the District of Columbia have laws pertaining to autonomous vehicles

- Only 5 and the District of Columbia have substantive Statutes (the rest are study commissions and executive actions)
- Only two (California and Nevada) have regulations.
- Only 4 states passed laws between 2011-2014.
- 5 more states passed laws since 2015.
- Currently there are bills pending in 23 states and the District of Columbia, of which 14 never passed any laws on autonomous vehicles.
- There is also some legislative action in Congress, but not much.

# Tort Law Implications/Reform

- ⌘ Negligence: requires proof that damages were caused due to someone's fault
- ⌘ Strict liability: no proof of fault required. Liability is determined based on objective criteria. The hitter pays for all damages.
- ⌘ No fault: damages are divided by all insurance companies such that each party is responsible for her own damages. The preferred regime for autonomous vehicles

# State Tort Regimes

- ⌘ Of the 50 states and the District of Columbia:
  - ⌘ 39 states currently have a negligence regime.
  - ⌘ 11 states (including Florida) and the District of Columbia have a no fault regime.
  - ⌘ Both California and Nevada have a negligence liability regime
  - ⌘ Conclusion: if you are an autonomous vehicle maker, seller, or user, the best (and in some respect most progressive) place for you is FLORIDA! (Who knew?!)
  - ⌘ 3 states (Florida, Michigan, and Nevada) and the District of Columbia passed laws exempting car makers from liability for modified vehicles.



# Criminal Law Implications/Reform

- & Manslaughter
- & Distracted driving
- & Driving while intoxicated
- & Reckless driving (including not keeping sufficient distance)
- & Only 3 states (Florida, Nevada, and Tennessee) passed laws addressing distracted driving. And that's it.



# Other Legal Implications of Autonomous Vehicles

- ⌘ Possible issues to be addressed: taxation, privacy, cybersecurity, etc.
- ⌘ Only one state (Tennessee) passed a law imposing a mile tax on autonomous vehicles.
- ⌘ Only one state (also Tennessee) passed a law prohibiting local political units from banning the use of autonomous vehicles.

# Some Observations and Conclusions

- ⌘ Slow and mostly very cautious legislative and regulatory steps toward implementation of autonomous vehicle technology.
- ⌘ Urgent need to change negligence rules to no fault rules, at least where autonomous vehicle are involved
- ⌘ Reassess criminal liability laws as they pertain to autonomous vehicles

# Thank you!

Contact: [yheled@gsu.edu](mailto:yheled@gsu.edu)

