

Side info

- Next WednesdAIs

- *27/05/2020*

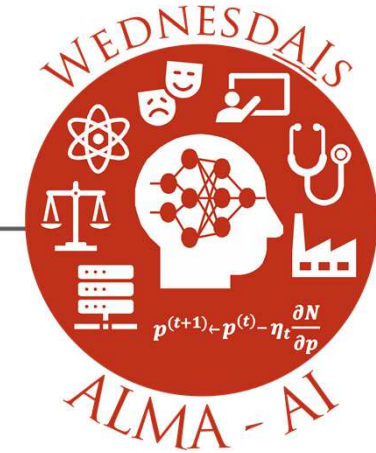
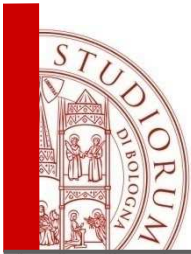
- Real-world data: never assume that bigger is better

- *10/06/2020*

- AI's many powers. The fascinating relationship between AI and energy

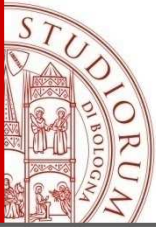
- Seminars' material

alma-ai.unibo.it



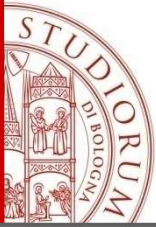
13/05/2020

WHEN AI'S DO DRIVE CARS... ...BUT DO NOT PAY BILLS



Autonomous what?

SAE Level	Name	Narrative definition		Execution of steering and acceleration/ deceleration	Monitoring of driving environment	Fallback performance of dynamic driving task	System capability (driving modes)	
Human driver monitors the driving environment								
0	No Automation	The full-time performance by the human driver of all aspects of the dynamic driving task, even when "enhanced by warning or intervention systems"		Human driver	Human driver	Human driver	n/a	
1	Driver Assistance	The driving mode-specific execution by a driver assistance system of "either steering or acceleration/deceleration"	using information about the driving environment and with the expectation that the human driver performs all remaining aspects of the dynamic driving task	Human driver and system			Some driving modes	
2	Partial Automation	The driving mode-specific execution by one or more driver assistance systems of <i>both steering and acceleration/deceleration</i>		System				
Automated driving system monitors the driving environment								
3	Conditional Automation	The driving mode-specific performance by an automated driving system of all aspects of the dynamic driving task	with the expectation that the <i>human driver will respond appropriately to a request to intervene</i>	System	System	Human driver	Some driving modes	
4	High Automation		<i>even if a human driver does not respond appropriately to a request to intervene</i>			System	System	Many driving modes
5	Full Automation		<i>under all roadway and environmental conditions that can be managed by a human driver</i>				System	All driving modes



Will it happen?

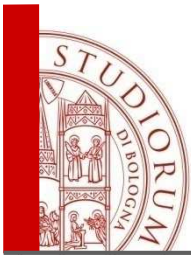
Car maker	California, 2016 ^[95]		California, 2018 ^[97]	
	Distance between disengagements	Total distance traveled	Distance between disengagements	Total distance traveled
Waymo	5,128 mi (8,253 km)	635,868 mi (1,023,330 km)	11,154 mi (17,951 km)	1,271,587 mi (2,046,421 km)
BMW	638 mi (1,027 km)	638 mi (1,027 km)		
Nissan	263 mi (423 km)	6,056 mi (9,746 km)	210 mi (340 km)	5,473 mi (8,808 km)
Ford	197 mi (317 km)	590 mi (950 km)		
General Motors	55 mi (89 km)	8,156 mi (13,126 km)	5,205 mi (8,377 km)	447,621 mi (720,376 km)
Delphi Automotive Systems	15 mi (24 km)	2,658 mi (4,278 km)		
Tesla	3 mi (4.8 km)	550 mi (890 km)		
Mercedes-Benz	2 mi (3.2 km)	673 mi (1,083 km)	1.5 mi (2.4 km)	1,749 mi (2,815 km)
Bosch	7 mi (11 km)	983 mi (1,582 km)		
Zoox			1,923 mi (3,095 km)	30,764 mi (49,510 km)
Nuro			1,028 mi (1,654 km)	24,680 mi (39,720 km)
Pony.ai			1,022 mi (1,645 km)	16,356 mi (26,322 km)
Baidu			206 mi (332 km)	18,093 mi (29,118 km)
Aurora			100 mi (160 km)	32,858 mi (52,880 km)
Apple			1.1 mi (1.8 km)	79,745 mi (128,337 km)
Uber			0.4 mi (0.64 km)	26,899 mi (43,290 km)



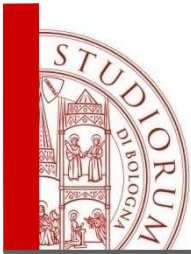
The *thrill* of autonomous driving

- Little/No human supervision
- Huge economical impact

- Sophisticated technology in a small space
- Complex human/artificial environment
- Lots of rules
- Social implications
- ...

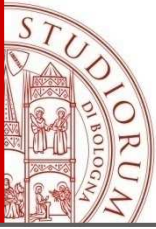


First to speak (alphabetical order)



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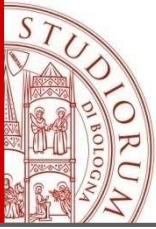
- Enrico Al Mureden (Dipartimento di Scienze Giuridiche) docente del corso *Product Safety, Product Liability and Automotive*, nel Corso di Laurea in *Advanced Automotive Engineering* nella *Motorvehicle University of Emilia-Romagna*. Visiting (2011; 2014) presso la Yale Law School con Prof. G. Calabresi.
Si occupa principalmente nell'ambito del diritto di famiglia, della responsabilità civile e della responsabilità del produttore con particolare riferimento ai settori della *food safety* e dell'*automotive law*.



First to speak (alphabetical order)

- Enrico Al Mureden (Dipartimento di Scienze Giuridiche)
- Roberto Montanari (co-fondatore di RE:LAB)

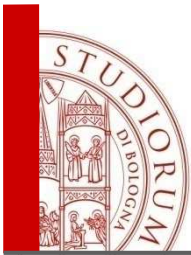
co-fondatore e responsabile R&D di RE:Lab, società che dal 2005 si occupa di di interfacce utente per il settore trasporti oltre che per altre aree. Professore Straordinario di Interaction Design presso l'Università degli Studi Suor Orsola Benincasa (Napoli), svolge il ruolo di Direttore tecnico-scientifico del Centro di Ricerca Scienza Nuova presso lo stesso Ateneo. Il suo focus è la creazione di interfacce utente in grado di conciliare la prospettiva umana e le frontiere più avanzate dello sviluppo tecnologico.



First to speak (alphabetical order)

- Enrico Al Mureden (Dipartimento di Scienze Giuridiche)
- Roberto Montanari (co-fondatore di RE:LAB)
- Giovanni Pau (Dipartimento di Informatica .
Scienza e Ingegneria)

professore aggiunto presso la UCLA di Los Angeles. Dal 2013 al 2017 il Dr. Pau ha ricoperto il ruolo di ATOS/Renault Chair of Excellence presso la Sorbonne Université. Dal 2004 si occupa di Connected Autonomous vehicles curando in particolare l'aspetto di connettività e di interazione tra autoveicoli a guida tradizionale e autonoma.



Enjoy!
(and interact)