JITI HQ SEMINAR

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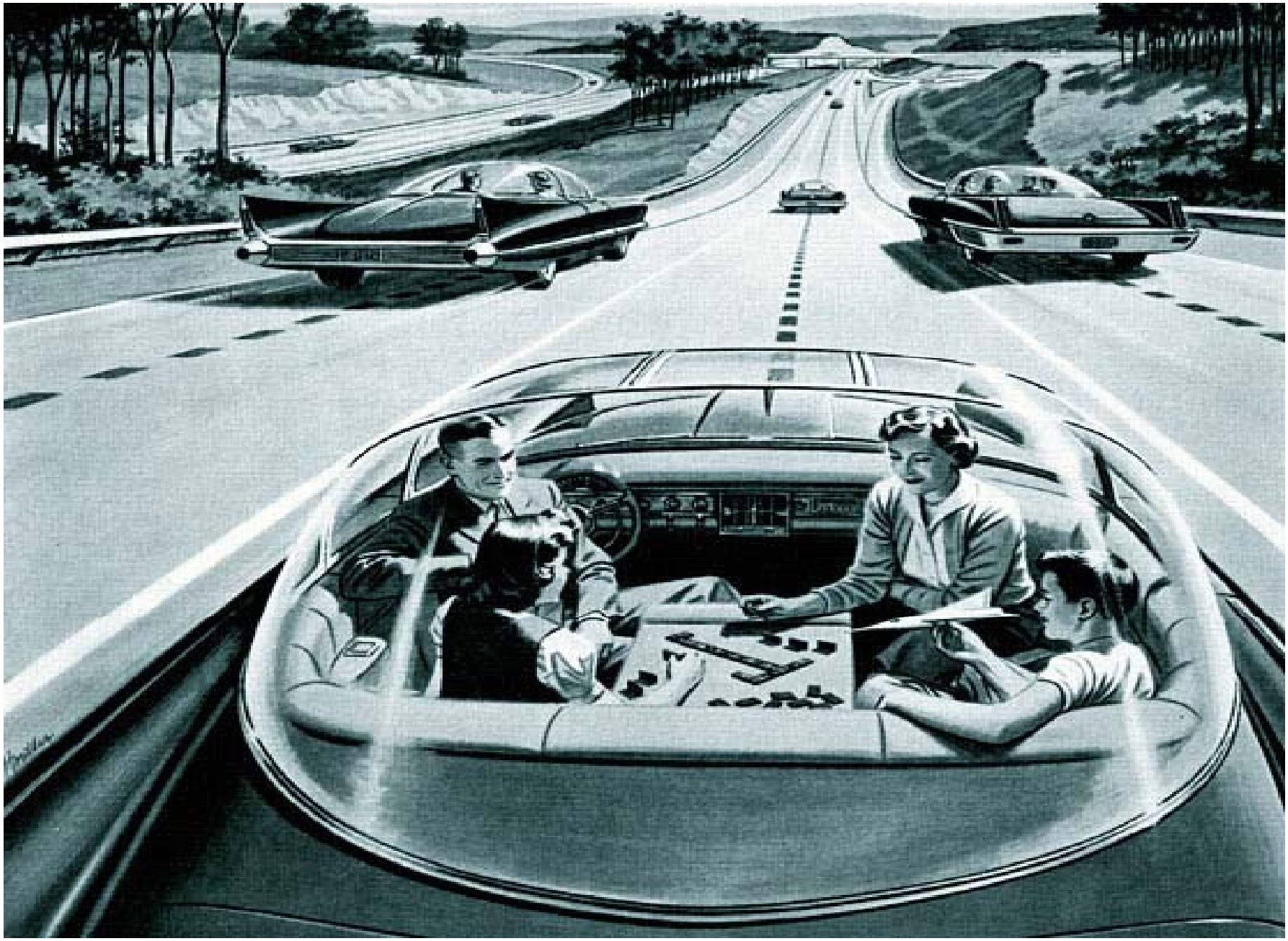

why self-driving cars?

freedom

~10,000,000 unreported crashes

5,338,000 police reported crashes

2,217,000 injuries

deaths	injuries	
3,331	387,000	distracted
1,500	40,000	drowsy
4,439	69,000	pedestrians
667	48,000	pedalcyclists

32,367 deaths

54% no belts

congestion

2,900,000,000	gallons of fuel
5,500,000,000	lost hours
$121,000,000,000	fuel & time

	age
41,394,141	65+ (2010)
72,774,000	65+ (2030)

56,700,000 disabled

46% working disabled

safety expectations for self-driving cars

100% effective?

seatbelts

45/50% (PC/LT) fatalities - front seat

292,471 lives saved (1975-2011)

child seats

71/54% infants/toddlers

9,874 (1975-2011)

frontal airbags

14% frontal crash fatalities

34,757 (1987-2011)

ESC

49% single vehicle fatalities

72% rollovers (first crash event)

required in all vehicles by 2011

effectiveness of self-driving car in avoiding crashes?

state legislation

	legislation	regulation
nevada	june '11	march '12
florida	april '12	
california	sept '12	jan '15

California Legislation

autonomous = w/o active control/monitoring

testing = $5M (bond, insurance, self-insure)
seated in drivers seat
active safety monitoring

operation = engage/disengage mechanism

visual indicator – engagement

safety alert –driver take-over or vehicle stop

driver take control must include brake,
accelerator, steering wheel methods

30 sec. sensor data capture before crash

application to operate w/o driver => 180 days