

SELF-DRIVING CARS

// CLASS 22

FALL 2015 / SECTION 02 / HOLLY BUCK

CARS ARE COMPUTERS

<https://www.youtube.com/watch?v=9O05htLHWuE>

<http://www.forbes.com/video/2616901840001/>

SOCIAL READINESS

- Mapping - <https://www.youtube.com/watch?v=75yJUW91ITs>
- Only 6% of cities have language about self-driving cars in their transit plans
- Only 3% are planning around on-demand ride services (Uber, Lyft) right now
- Public attitudes – cars as part of American identity

ISSUES?

- Security
- Trolley problem / Duty to act: "In certain situations, an automated vehicle may be forced to select whether to expose itself and its passengers to a small risk in order to protect other road users from an equal or greater amount of cumulative risk." (Goodall, 2014)
- Turning over responsibility – reducing human agency; loss of human skills
<http://www.cnn.com/2015/04/02/europe/france-germanwings-plane-crash-could-autopilot-have-helped/>
- <https://www.youtube.com/watch?v=4CZe5DXeYzw>
- From owned good to service; terms of service in providers' corner, loss of control of after-market sales
- Monopoly / duopoly issues
- <http://www.rand.org/multimedia/video/2014/03/24/self-driving-vehicles.html#in-brief-james-m-anderson-on-autonomous-vehicle-technology>

WHAT ARE THE RELEVANT
PRINCIPLES AND VALUES HERE?

DEBATE

Should self-driving cars be individually-owned or fleet-run?

“Several Silicon Valley companies lean toward a fleet-run future as Uber and Lyft have made it very clear that they either want to reduce or end car ownership outright. It is unclear how Google or Apple — another suspected entrant — plan to sell or distribute cars. Tesla sells to the individuals at the higher-end and is moving down market. German auto manufacturer Mercedes Benz seems to be hedging; its research and development unit in Silicon Valley is running a pilot fleet called Boost for shuttling children from activity to activity.

- Would a fleet-run model lend itself to a monopoly or duopoly, with all of the pricing and regulatory issues that would inevitably raise?
- If we go toward a fleet-run future, how should curbside design be changed if cities expect heavier pick-up and drop-off activity, but a lot less demand for parking?
- If consumers keep shifting to electric vehicles or fleets of autonomous vehicles, that will reduce both parking fee and gas tax revenue. If so, how should tax and revenue sources for road maintenance evolve?
- If driverless car technology becomes something of a utility, how do cities promote equity and access for lower-income residents? Do they rely on a voucher system to cover the difference for market-rate fares for lower-income commuters or organize municipally-run fleets?”