CS50 for JDs

Autonomous "..." and the law!

Seminar 1/18/2019

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Autonomous "..." and the law!

Why is this important to discuss?
In short:
Because it is the future

AI or Autonomous Classes?
1L
2L
3L

Autonomous "..." Initial Thoughts

- Automobiles
- Other

In The Year 1900

Would it have been odd to discuss legal implications of:

- Emails
- Money Transfers Via Wire Communications

Autonomous Vehicles

We could discuss or apply these thoughts to any autonomous machine, however, Autonomous Vehicles seem to be the most pressing example that has been addressed in the news and in society.

Autonomous Vehicles

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- The Programmer?
  - Is the programmer off the hook because they were in a position to either write the code or be fired?
  - What if the programmer were the proprietor of the code: developed and either sold to a third party for use or was personally acquired as an employee or consultant to deploy the code in another product?

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    - Should our government make that decision for the world or should it be a consensus?

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Autonomous Vehicles

How should local and federal government agencies handle this new technology?

- If regulation and litigation is the answer:
  - How much or little?

States That Have Adopted or Enforced Some Sort of Policy

States with Autonomous Vehicles Enacted Legislation and Executive Orders
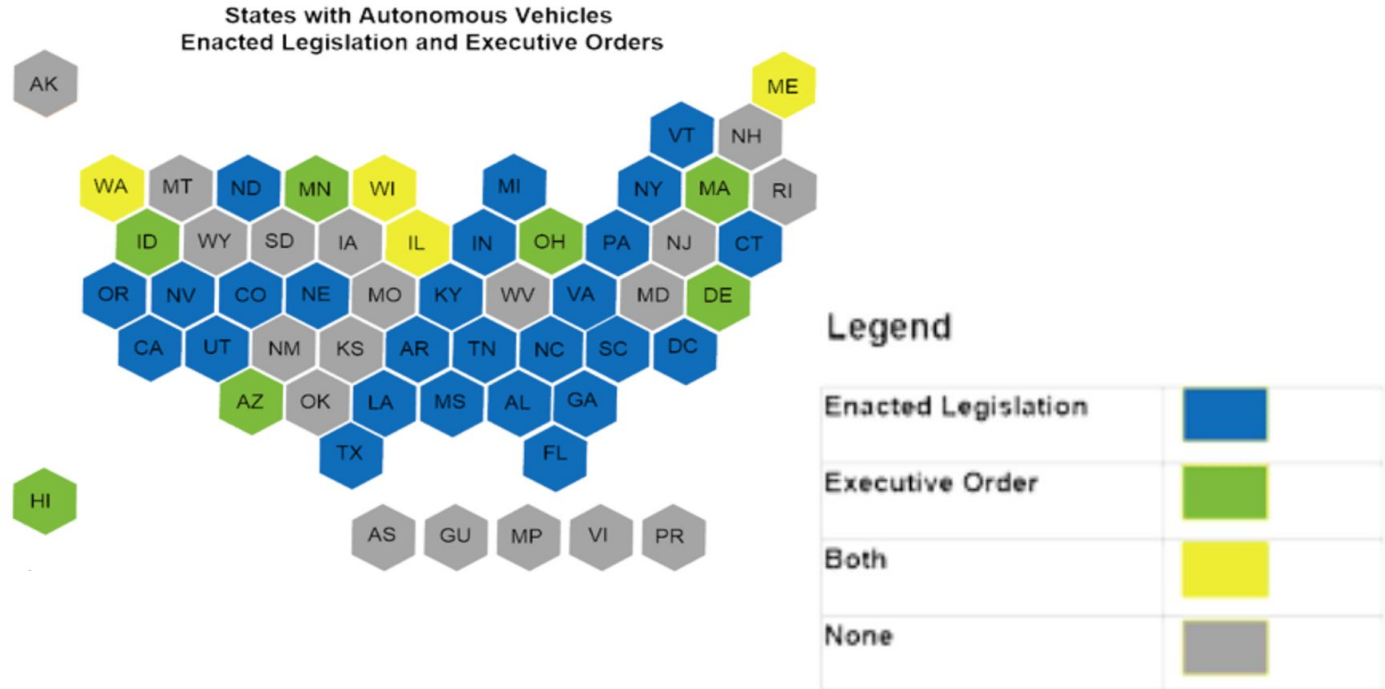
States That Have Adopted or Enforced Some Sort of Policy

Arizona: Sep, 2015

Executive Order 2015-09

Self-Driving Vehicle Testing and Piloting in the State of Arizona;
Self-Driving Vehicle Oversight Committee

WHEREAS, with the development of new technologies, it is now possible to adapt vehicles with "self-driving technology," meaning a technology installed on a motor vehicle that provides the motor vehicle with the capability to drive without the direct or active control or monitoring by a human operator;

WHEREAS, it is in Arizona's interest to support the development of these technologies, by allowing testing and operation of self-driving vehicles on certain public roads, in order to continue to advance the technology;

WHEREAS, the State believes that the development of self-driving vehicle technology will promote economic growth, bring new jobs, provide research opportunities for the State's academic institutions and their students and faculty, and allow the State to host the emergence of new technologies;

States That Have Adopted or Enforced Some Sort of Policy

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WHEREAS, the State has the view that the testing and operation of self-driving vehicles could produce transformational social benefits such as the elimination of traffic and congestion, a dramatic increase in pedestrian and passenger safety, the reduction of parking facilities, and the facilitation of movement of residents across the State, and could beneficially contribute to other activities related to the State's transportation; and

WHEREAS, the State has a shared vision that the future of transportation and commerce relies on innovative technologies that could result in more passenger and pedestrian safety, increase mobility options, and foster economic productivity.

States That Have Adopted or Enforced Some Sort of Policy

Arizona: Sep, 2015

NOW, THEREFORE, I, Douglas A. Ducey, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of the State of Arizona, hereby order as follows:

(1) The Department of Transportation, Department of Public Safety, and all other agencies of the State of Arizona with pertinent regulatory jurisdiction shall undertake any necessary steps to support the testing and operation of self-driving vehicles on public roads within Arizona.

(2) Pilot programs will be enabled on campuses of selected universities in partnership with entities that are developing technology for self-driving vehicles, whereby an operator with a valid driver's license may direct a vehicle's movement, regardless of whether the operator is physically present in the vehicle or is providing direction remotely while the vehicle is operating in self-driving mode.

States That Have Adopted or Enforced Some Sort of Policy

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(3) Testing and operation of self-driving vehicles in such pilot programs shall abide by the following rules:

(a) Vehicles may be operated only by an employee, contractor, or other person designated or otherwise authorized by the entity developing self-driving technology.

(b) Vehicles shall be monitored and an operator shall have the ability to direct the vehicle's movement if assistance is required.

(c) The individuals operating vehicles shall be licensed to operate a motor vehicle in the United States.

States That Have Adopted or Enforced Some Sort of Policy

Arizona: Mar 19, 2018

Self-driving Uber kills Arizona woman in first fatal crash involving pedestrian

Tempe police said car was in autonomous mode at the time of the crash and that the vehicle hit a woman who later died at a hospital

States That Have Adopted or Enforced Some Sort of Policy

Arizona: Following this incident

Linda Bailey, the executive director of the National Association of City Transportation Officials (Nacto) said in an interview that there has not been enough regulatory oversight of testing and that some governments are overwhelmed trying to understand autonomous technology and its limitations.
"There's an essential role for the public sector in regulating the safety of these vehicles, which has been largely left to private companies,"

Tempe's mayor, Mark Mitchell, defended the city's ongoing support of autonomous vehicles in a statement Monday, saying: "All indications we had in the past show that traffic laws are being obeyed by the companies testing here."

What About The Code Itself?

If Number_of_People_on_Left < Number_People_on_Right

    Hit(Number_of_People_on_Left)

Else:

    Hit(Number_of_People_on_Right)

What About The Code Itself?

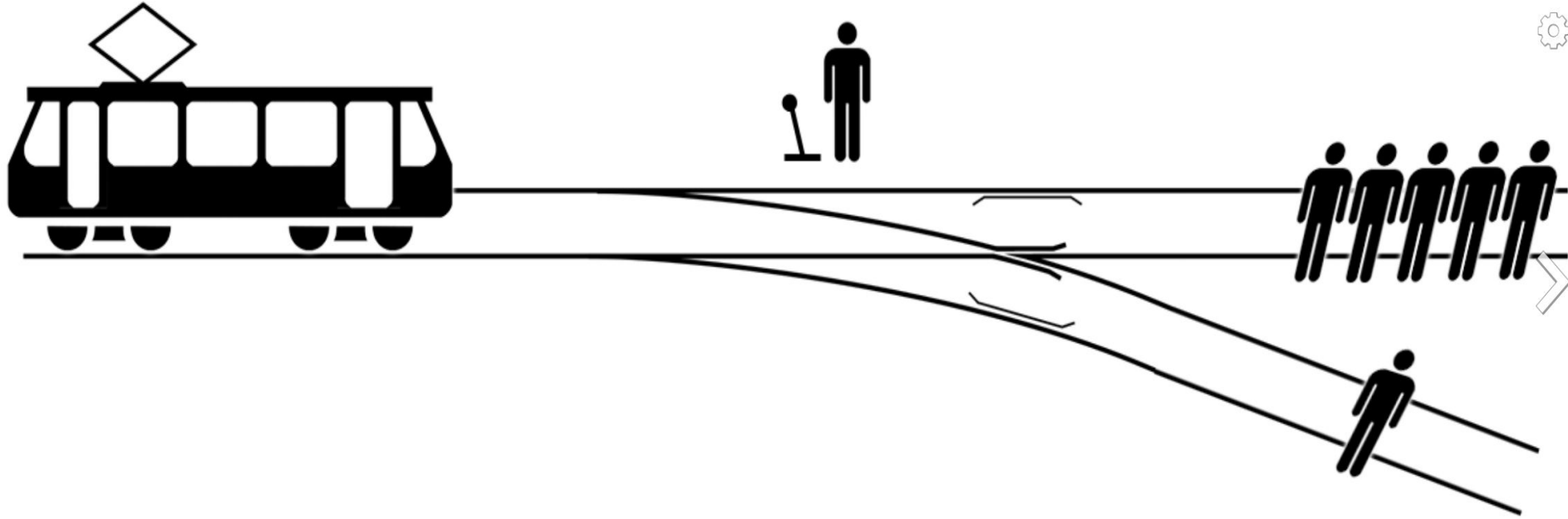- Who is responsible?

What About The Code Itself?

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- Who is responsible?
- Who chooses who dies?
    - Is this a legal issue or a moral issue?

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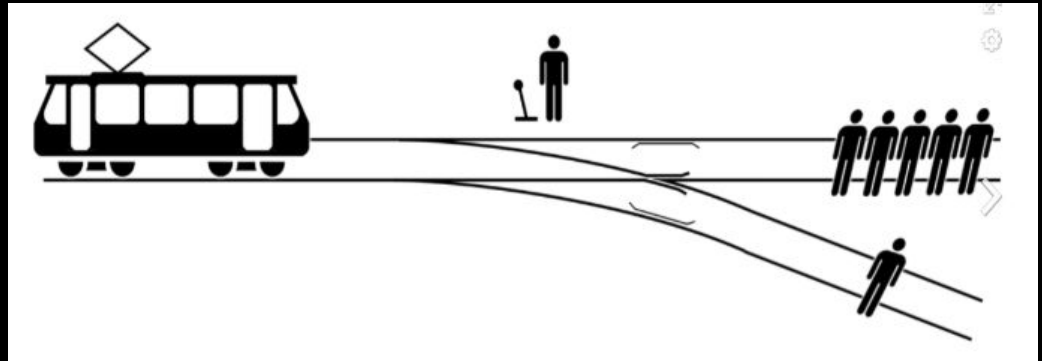
What About The Code Itself?

This is effectively the same idea, however, no parties directly involved with the crash have a say, creating a new question not of God and the potential intervention of Man but a programmer playing God and Man!

What About The Code Itself?

Then comes the dilemma of "Save those inside the car" or "Save those outside of the car."

https://tinyurl.com/yc6po8b5
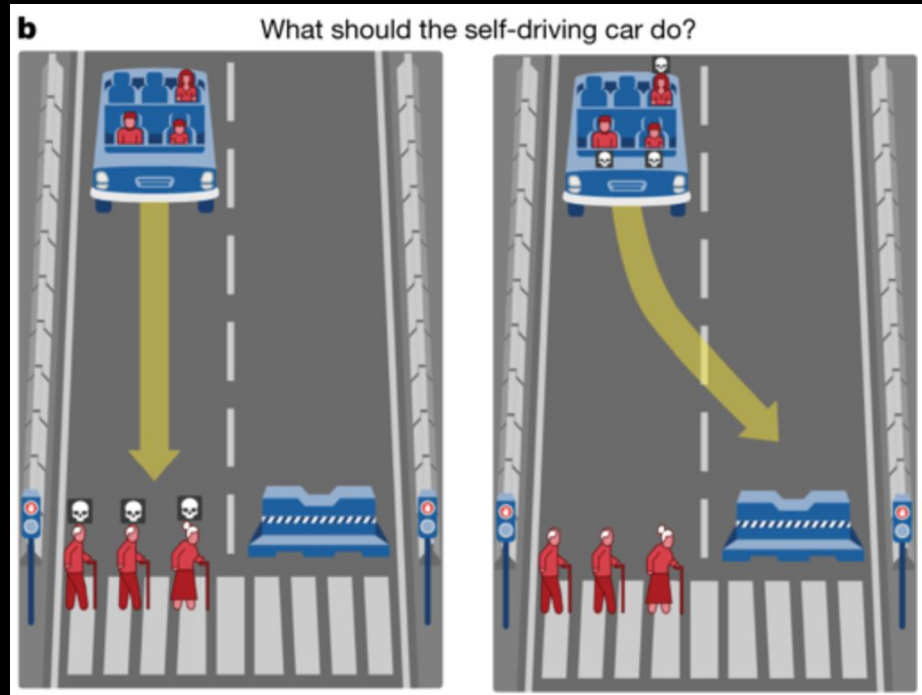
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    - Education level over Age or Number, etc.
    - Should we be in charge of making these decisions for everyone?

How Does The Engineering Community Feel?

https://perma.cc/W37P-XY7E National Society of Professional Engineers

"In the event of an unavoidable crash, does the vehicle's system choose the outcome that will likely result in the greatest potential for safety for the vehicle's passengers or does the vehicles software system instead choose an option in which the least amount of potential harm is done to any of those involved in an accident, such as having the car crash into a stationary object (e.g., telephone pole, etc.) with the probability of causing some passengers serious but non-life threatening injuries instead of striking and potentially causing a fatal injury to a pedestrian, cyclist, or motorcycle rider?"

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This is great, however, how do you program a computer to "slightly" injure someone, but do not kill them. Maybe a broken leg or broken arm, ribs at most, but no puncture wounds...

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Quotes from this review:

"New engineering breakthroughs frequently introduce different ways of thinking about engineering ethics."

- Example: Money over time to market…
    - How much testing is reasonable relative to the financial, ethical, and potential legal costs should something go wrong.

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    - The difference is that these are 1,000lb machines that can kill people!

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Quotes from this review:

Conclusion

..."In light of the fact that engineers should strive to do no harm in the performance of their professional services...That being said, to address the specific question posed in the case, Engineer A has an obligation to state that the prime ethical obligation of the vehicle operation is to minimize harm to affect the least number of persons."

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Takeaway from previous slide!

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Gloom And Doom Aside

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    - Increase in need for lawyers to sort out these issues?
    - Lucrative opportunities for those that become pioneers in the field?

Gloom And Doom Aside

What implications will Autonomous "..." have on your careers personally?

- What are the potential negatives?
    - This is is a bigger topic!

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- Ethereum - Smart Contracts

https://www.ethereum.org/

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- Blockchain and Smart Contracts
    - How will this affect the legal profession?

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  - Kai-Fu Lee - 60 Minutes, the Father of AI - https://tinyurl.com/y9u3kna2

    - "The invention of the steam engine, the sewing machine, electricity, have all displaced jobs. And we've gotten over it. The challenge of AI is this 40 percent, whether it is 15 or 25 years, is coming faster than the previous revolutions."

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- Ethereum and Smart Contracts
  - If anything that is Autonomous can be predicted, at least to a fault, and, removing human judgement, Smart Contracts could have the ability to handle all responsibilities that fall to the sea of lawyers that spend time arguing intent, premeditation, fault, etc.

Gloom And Doom Aside

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- Ethereum and Smart Contracts
  - We will always need lawyers because humans are humans, however, what if an entire legal sector were taken off the table?
    - Automobiles
    - Faulty Machinery
    - Etc.

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  - We will always need lawyers because humans are humans, however, what if an entire legal sector were taken off the table?
    - Automobiles
    - Faulty Machinery
    - Etc.
  - Would this remove the incentive to become a lawyer, effectively removing the competition to be the best lawyer, thus not providing society in general with the brightest minds on the task of the law or will going into the legal profession become, "Eh, maybe I'll go to law school if that job at the American Eagle doesn't work out."