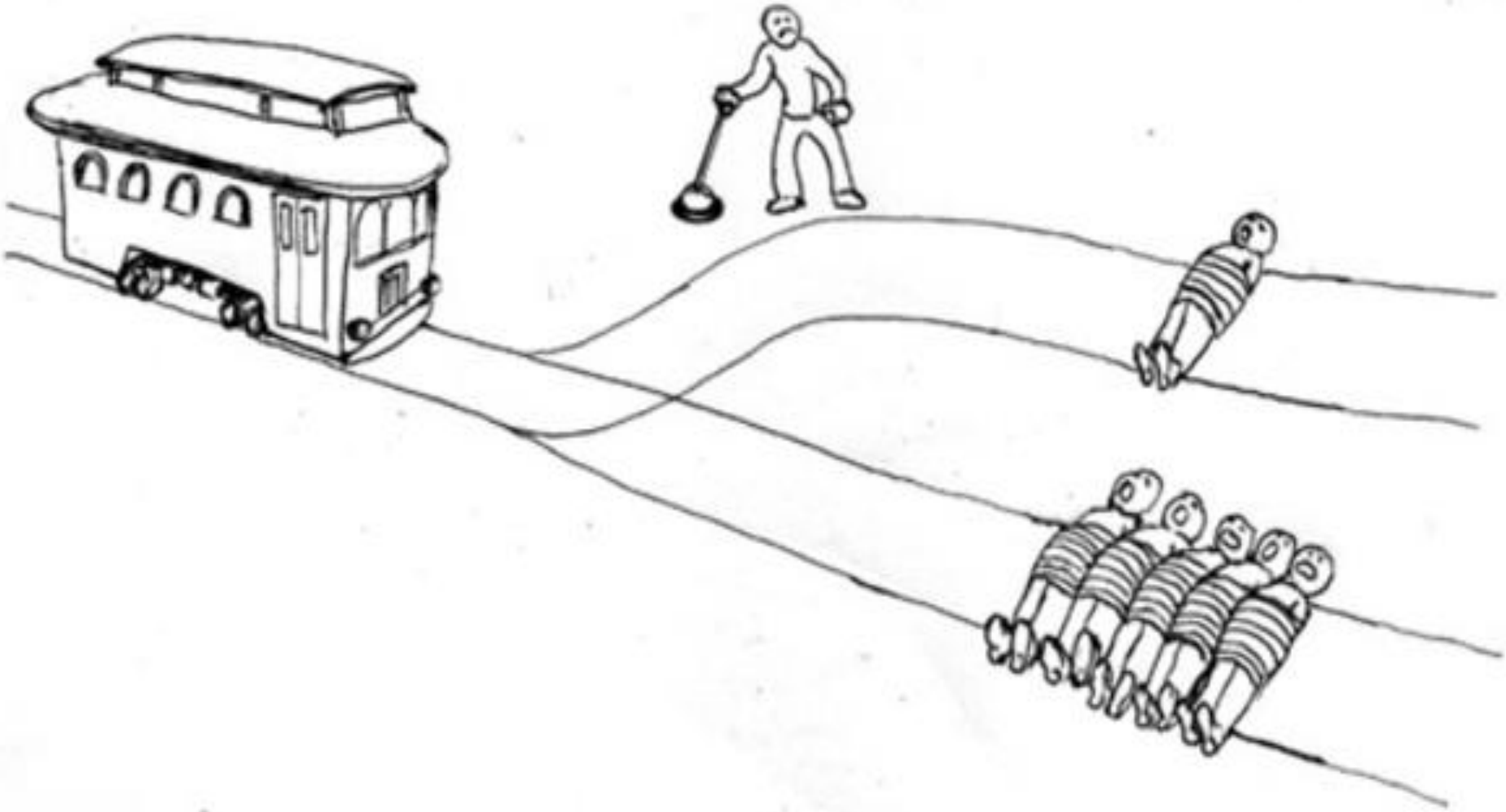
"Does your car have any idea why my car pulled it over?"

Autonomous cars

...

Who should be held legally accountable in the event of an accident?



Summary of topics discussed

- History of autonomous vehicles
- Aims and benefits of driverless cars
- Challenges and ambiguities
- Potential solutions and approaches

Brief history of autonomous cars

- 1948 - introduction of cruise control
- 2009 - Google begins self-driving car project
- 2013 - Mercedes and Infiniti produce cars with radar sensors and some autonomous driving features
- 2013 - NHTSA (US traffic safety administration) releases initial policy on autonomous vehicles
- 2015 - Tesla releases its Auto-Pilot self-driving mode
- 2016 - Others companies such as GM, Toyota, Uber, Volvo, Ford have their own projects and partnerships
- 2016 - NHTSA issues guidelines for testing and deployment of autonomous vehicles
- 2017 - NHTSA issues revised safety guidelines for autonomous vehicles

Aims and benefits of driverless cars

- Reduce congestion
- Increase in safety
- More driver freedom
- Quality transport service
- Better health
- Reduced carbon emissions
- New jobs (but also many losses of old jobs)

Challenges and ambiguities

...

Liability

- Who is to blame?
- Traditional choices
  - Owner/driver
  - Manufacturer
- Autonomous choices
  - Owner/driver/operator
  - Manufacturer
  - Company that created the technology


WITH ALL DUE RESPECT OFFICER, SIR, I THINK YOU'D BEST DIRECT THAT SPEEDING TICKET TO THE MANUFACTURER...
POLICE
CARTOONSTOCK
Search ID: tmen260
tim mellish
DRIVERLESS CARS WERE PRESENTING NEW POLICING CHALLENGES...

Liability (cont’d)

- No legal precedent
- Complex issue
- Would you rather be hit by a human driver or an AI?
- What about cyber liability?

Death algorithms

- Algorithms decide
- Too many scenarios
- Follow the law, crash or finish your journey midway?
- ‘Why’ is more important than ‘what’
- Difficult for humans to justify their own ethics


else.Print [*]
def add5(x):
1/11) return x+5(%)
label = GET. OFF. THE.
ROAD. @#%*. IDIOT!
%[-] AUTO. Append
CARTOONSTOCK
Search ID: jcen2033
ROAD RAGE IN THE CAR-TO-CAR TECHNOLOGY ERA.

Death algorithms

- Algorithms decide
- Too many scenarios
- Follow the law, crash or finish your journey midway?
- ‘Why’ is more important than ‘what’
- Difficult for humans to justify their own ethics

Reaction vs. decision

- Humans react, AIs decide.
- Cars don’t have ethics. Companies do.
- Ethics dilemma

Potential solutions and approaches

- Shared responsibility
- Specialised insurers
- Software defects as manufacturing defects
- Blockchain technology
  - Operational partition
  - Decision partition
- Ethical education and AI
- Regulate ‘black box’ technologies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