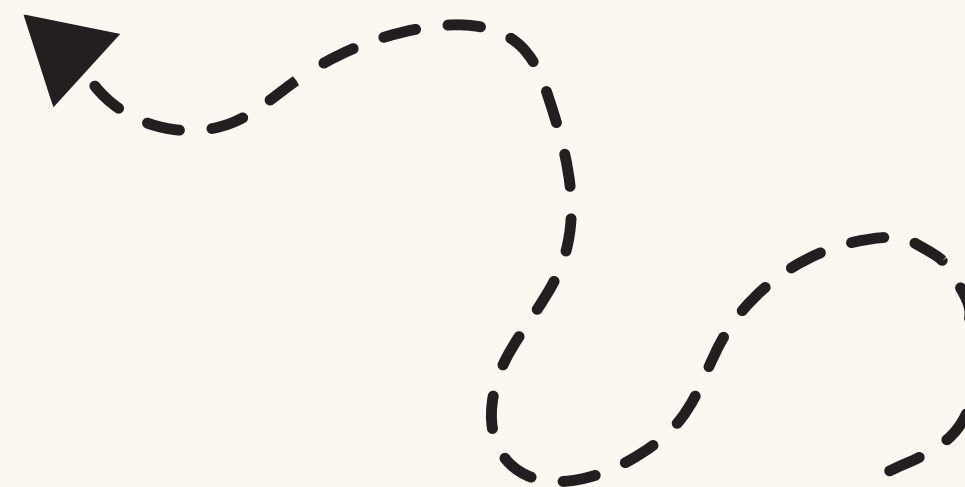
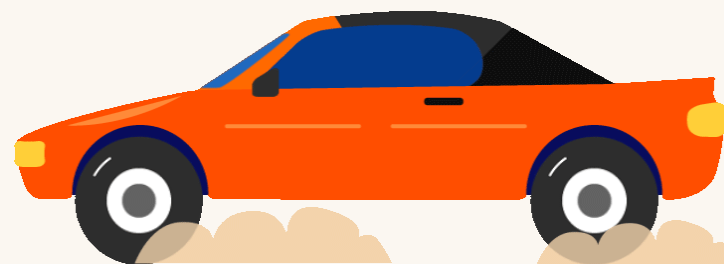


Decision making algorithms for Autopilot cars



By Yanxi (fifi) Feng



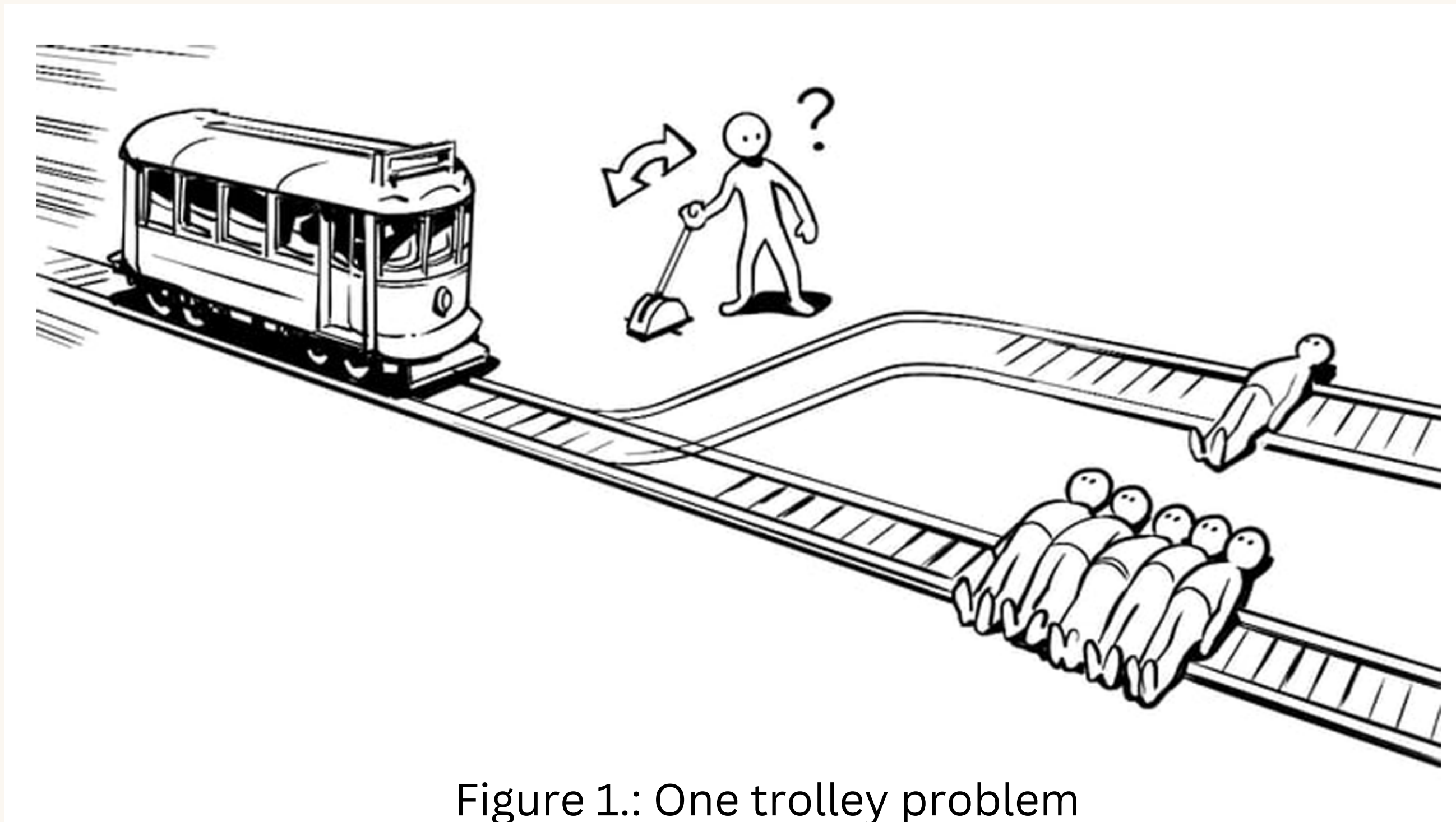




Figure 1.: One trolley problem

Trolley problem



Explore ethical dilemmas, the stakeholders involved, and the balancing act between passenger and pedestrian safety, also car company



Uber self-driving car test driver pleads guilty to endangerment in pedestrian death case

In March 2018, a self-driving Uber car in Arizona hit and killed a pedestrian, despite having an operator onboard. The car's software noticed the pedestrian but mistakenly ignored the detection, leading to a fatal accident. This incident underscores the ethical challenges in programming autonomous vehicles, particularly the need to balance passenger comfort with pedestrian safety.

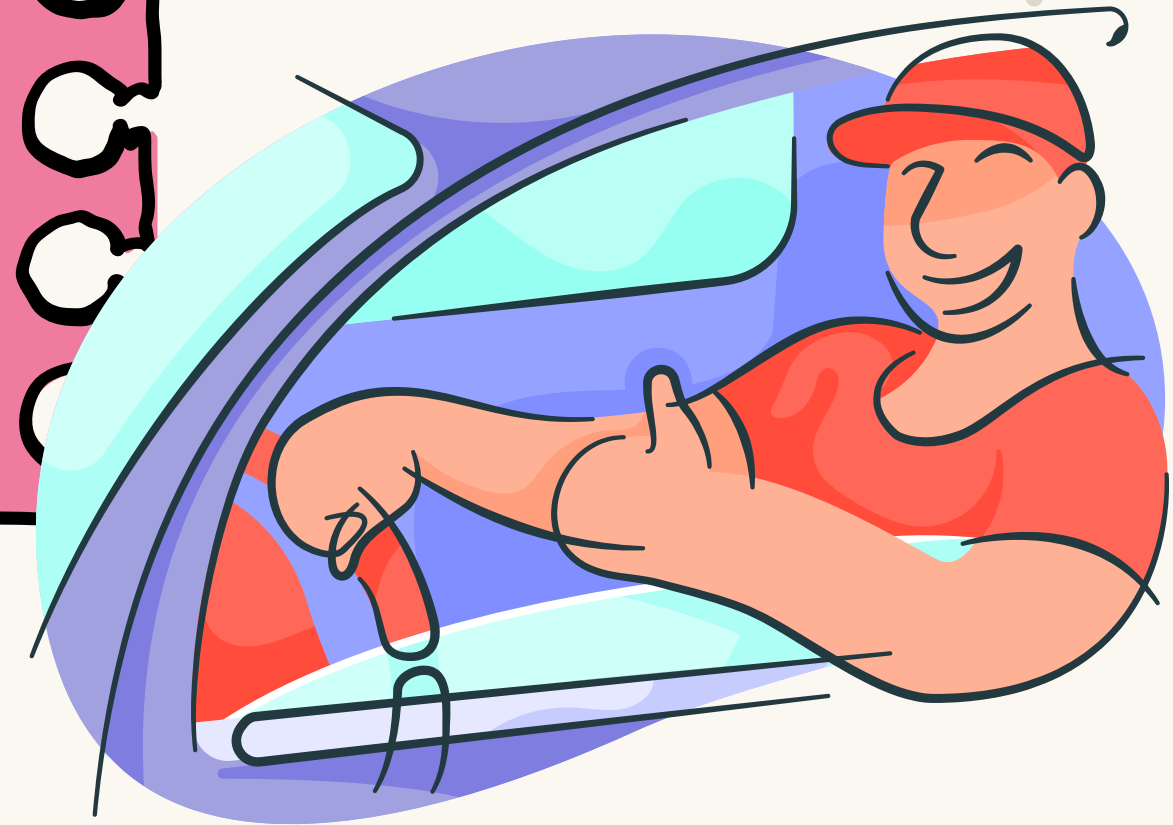


Figure 2. :an investigator works at the scene of a fatal accident involving a self driving Uber car in Tempe

Main point 1

Algorithmic Decisions Favoring Vehicle Passengers

AWESOME





Ethical Lenses:

Emphasize that while passenger safety is maximized, pedestrians are at greater risk.

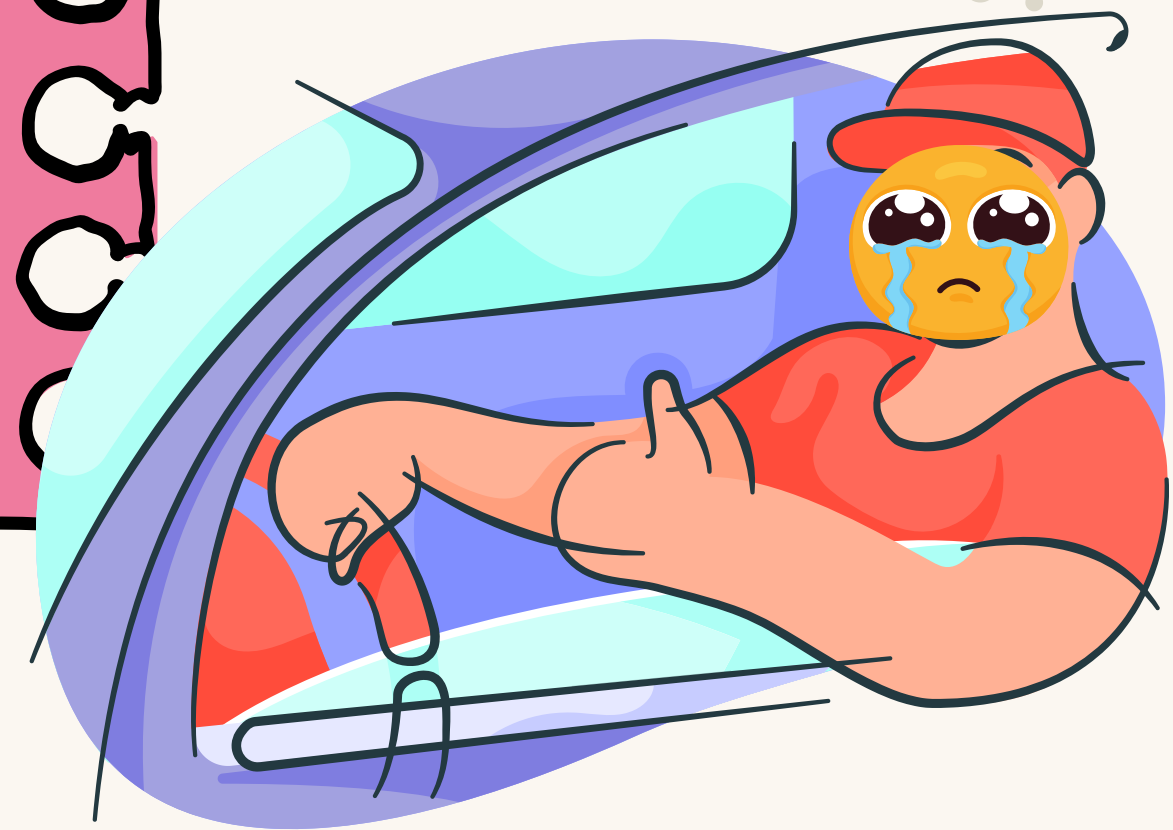
Consumers will be more willing to buy this car, and the company's interest will also increase

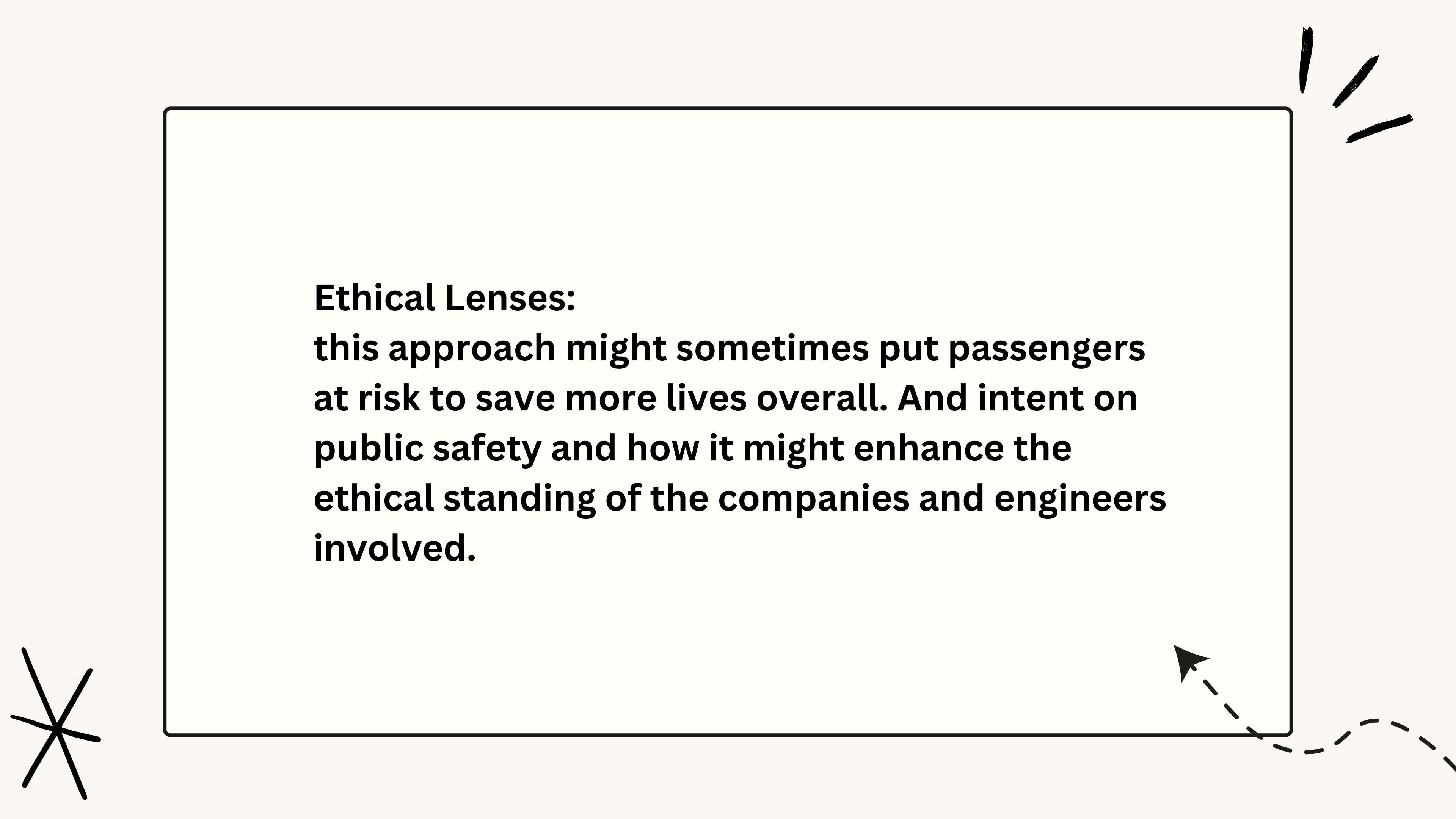


Main point 2

**Algorithmic decision
making aimed at
saving more lives**

OOPS





Ethical Lenses:
this approach might sometimes put passengers at risk to save more lives overall. And intent on public safety and how it might enhance the ethical standing of the companies and engineers involved.



Recommendation:

Consider both the safety of passengers and pedestrians, finding a middle ground.

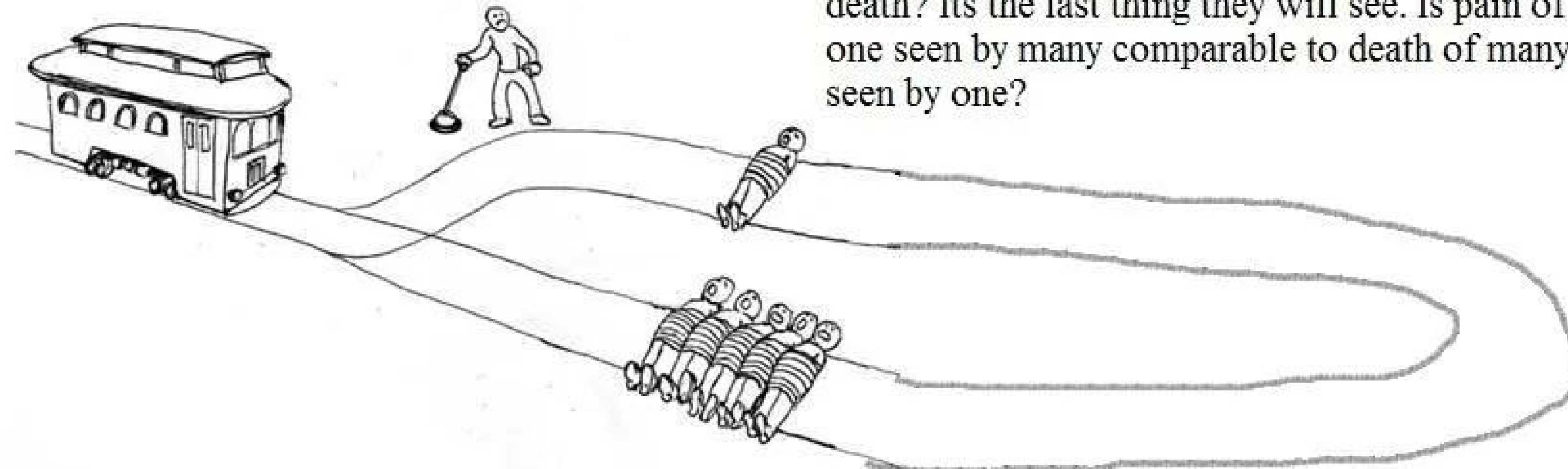
Find some examples from some current companies to support this recommendation



Conclusion

Car companies and engineers need to balance individual rights with public safety, consider the safety of passengers and pedestrians, and find a middle ground.

What would be more ethical? Killing one person in front of 5 people before they die or killing 5 people in front of 1 person before his death? Its the last thing they will see. Is pain of one seen by many comparable to death of many seen by one?



 **THANK
YOU!**

By Yanxi (fifi) Feng

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Figure1: "Would you push the Fat Man off the Bridge?", <https://shikharsachdev.com/trolley-problem/>

Figure2: "Backup driver in 1st death by fully autonomous car pleads guilty to endangerment", <https://krcrtv.com/news/nation-world>