

# Ethics and AI continued

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INFR11158/11230 Usable Security and Privacy

Dr. Jingjie Li

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THE UNIVERSITY  
*of* EDINBURGH

# Overview

- Warm-up
- Ethics intro
- Guest lecture



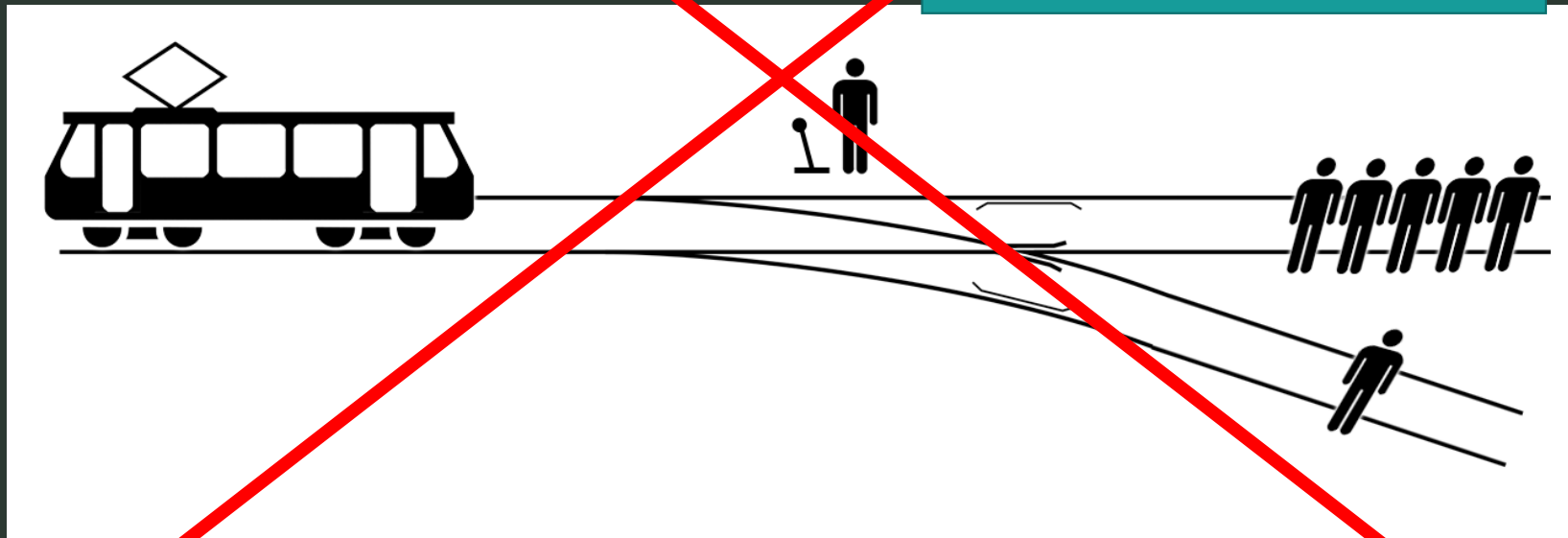
<https://www.youtube.com/watch?v=cFM6BTgFYdE>

**What is ethics?**

# The trolley problem

Today we will \*not\* be discussing classical ethics.

Instead we are discussing ethics of study designs and how to behave in a way that society considers to be ethical.





# The Menlo Report

Ethical Principles Guiding Information and  
Communication Technology Research

*August 2012*



**Homeland  
Security**

Science and Technology

**The only real way to know if your interface works is to test it on humans. Which means that we are regularly performing human experiments. Which naturally leads to ethics issues...**

# **A short history lesson on ethics**



# Tuskegee Syphilis Experiment

- Between 1932 and 1972 the US Public Health Service conducted a study on untreated syphilis
- 600 African American men in Alabama were given free medical care and food for participating
- They were told it was a 6 month study on “bad blood”, but it actually lasted 40 years
- They were never told that they had syphilis, even though the researchers knew that they did
- A cure was found in the 1940's, but Tuskegee patients were prevented from gaining access to it
- 28 participants died of syphilis, 100 died of related complications, 40 wives contracted syphilis, and 19 children were born with congenital syphilis

# History of ethics

- 1972 – Tuskegee study ended
- 1974 – US Congress created a commission to study research ethics and write regulations around ethics
- 1978 – Belmont Report officially released detailing a set of guidelines around what “ethical” research on humans looks like
- 1981 – Common Rule went into effect in the US regarding biomedical and behavioral research involving human subjects.
- 2010 – All researchers working on US funded grants must go through ethics training
- 2012 – Menlo Report officially published. Update to the Belmont Report focusing on ICT research

# The Belmont Report (1974)

- Respect for persons
  - Protecting the autonomy of all people and treating them with courtesy and respect and allowing for informed consent. Researchers must be truthful and conduct no deception
- Beneficence
  - The philosophy of "Do no harm" while maximizing benefits for the research project and minimizing risks to the research subjects
- Justice
  - Ensuring reasonable, non-exploitative, and well-considered procedures are administered fairly – the fair distribution of costs and benefits to *potential* research participants – and equally.

<http://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html>

# The Menlo Report (2012)

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Principle	Application
Respect for Persons	Participation as a research subject is voluntary, and follows from informed consent; Treat individuals as autonomous agents and respect their right to determine their own best interests; Respect individuals who are not targets of research yet are impacted; Individuals with diminished autonomy, who are incapable of deciding for themselves, are entitled to protection.
Beneficence	Do not harm; Maximize probable benefits and minimize probable harms; Systematically assess both risk of harm and benefit.
Justice	Each person deserves equal consideration in how to be treated, and the benefits of research should be fairly distributed according to individual need, effort, societal contribution, and merit; Selection of subjects should be fair, and burdens should be allocated equitably across impacted subjects.
<i>Respect for Law and Public Interest</i>	<i>Engage in legal due diligence; Be transparent in methods and results; Be accountable for actions.</i>

**Guest Lecturer:**

**Jack West**, Ph.D. student at University of Wisconsin-Madison

Research focus: User privacy, security, OS, reverse engineering

Talk: **AI Models On Mobile Phones: What they do, Why they're there, and How They Work**