

# Data's day of reckoning

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# Data: Benefit or Harm?

- Recommender systems
- Autonomous vehicles
- Maps and Navigation

However, when it is not properly used...

- Facebooks' violation of individual privacy
- The case of Henrieta Lacks

# Ethics and security training

- Integrate ethics ideas into school assignment
- Add ethics course to core curriculum
- integrated into every course at colleges, universities, online courses, and programming boot camps.

# Developing guiding principles

- Tight schedule
- Checklists are the solution

- ☐ Have we listed how this technology can be attacked or abused?
- ☐ Have we tested our training data to ensure it is fair and representative?
- ☐ Have we studied and understood possible sources of bias in our data?
- ☐ Does our team reflect diversity of opinions, backgrounds, and kinds of thought?
- ☐ What kind of user consent do we need to collect and use the data?
- ☐ Do we have a mechanism for gathering consent from users?

# Building ethics into a data-driven culture

- An individual needs to be empowered to stop the process before damage is done.
- Anyone should be able to escalate issues for remediation without fear of retaliation
- An ethical challenge should be part of the hiring process
- Product reviews must ask questions about the product's impact
- Teams must reflect diversity of thought, experiences, race, and background
- Corporations must make their own principles clear

# Regulation

- The Common Rule
- U.S. Federal Trade Commission (FTC)
- Nuclear Regulatory Commission (NRC)
- Consumer Finance Protection Bureau (CFPB)