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?
\square Have we tested our training data to ensure it is fair and representative?
\square Have we studied and understood possible sources of bias in our data?
☐ Does our team reflect diversity of opinions, backgrounds, and kinds of thought?
\square 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)