



Big Data: Chapter 8 - Risks

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The dark side of big data

- We're under constant surveillance
 - Credit cards
 - Cellphones
- The Internet has changed the game
 - Shopping preferences (Amazon)
 - Browsing habits (Google)
 - Social networking (Facebook, Twitter)
- Big data vs. people
 - Loss of privacy
 - Penalties based on propensities
 - Dictatorship of data



The loss of privacy

- Notice and consent
 - Importance of data changes
 - Secondary uses
- Anonymization
 - Perfect anonymization is impossible
 - Could still be traced back
- Surveillance gets easier, cheaper, and more powerful
- People are the sum of their:
 - Social relationships
 - Online interactions
 - Connections with content



Penalties based on propensities



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- Predicting with data
 - Insurance companies
 - Law enforcement
- Profiling
 - More accurate predictions with big data
- Preventive measures
 - Stopping crimes before they happen
 - Thinking bad things is not illegal
- Predictions are never perfect
- Big data tells us nothing about causality

Dictatorship of data

- Numbers are more fallible than we think
 - False information
 - Relying on wrong data points
- Data can be:
 - Of poor quality
 - Biased
 - Mis-analyzed
 - Used misleadingly
- Data can become a crutch
- Brilliance doesn't depend on data

