Biometrics

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Privacy Policy, Law, and Technology
Today’s Agenda

• Quiz
• Discussion on Biometrics
• Field trip to Biometrics lab
By the end of class, you should be able to:

• Describe several types of biometrics and how they are used

• Reason about privacy concerns related to biometrics
Types of biometrics

- DNA
- Ear
- Iris matching
- Face recognition
- Fingerprint
- Gait
- Hand Geometry
- Odor
- Signature
- Typing patterns
- Voice recognition
Biometrics used for

- Authentication
  - One to one matching
- Identification
  - One to many matching
- Security
- Alternative to passwords
Privacy concerns of biometrics

• If your biometrics are stolen or compromised, can not be reset or replaced
• Can be detected without your cooperation
  – Surveillance
• Creation of databases with information
• Implicated in crimes
Other ethical concerns with biometrics

- Only as good as the initial identification
- Accuracy may differ in minority populations
- Trade-off between false-positive and false-negative
Case Study

• Biometrics in national identity cards
  – Which biometric?
  – When is it issued (e.g. at birth)
  – Why?
  – Why not?