IN YOUR FACE!
THE PRIVACY & SECURITY IMPLICATIONS FROM FACIAL RECOGNITION

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Intro & Agenda

- About the Technology
- Home & Personal Lives
- Out in Public/Government
- Corporate Environment
- Legal Themes
- Controls
Introduction
ABOUT THE TECHNOLOGY
Positive Uses

- Security Enhancing
  - Access
  - Authorization
  - Auditing

- Privacy Enabling
  - U r U
  - Control
About & Basics of How it Works

STEP BY STEP
Currently used by governments and private firms across the world, facial recognition is considered the least intrusive of biometric technologies.

CAPTURING
The foremost requirement is to capture the image and that can be done by scanning existing images or using cameras.

EXTRACTING
Unique facial data is then extracted from the sample.

COMPARING
The data is then compared with the database.

MATCHING
The software then decides whether the sample matches any picture in the database or not.

SOME OF THE PLACES SUCH SYSTEMS ARE EITHER BEING USED OR COULD BE USED

- Airports
- Railway stations
- Banks & financial institutions
- Stadiums
- Public transport
- Government offices
- Business establishments

Source: Mint report
Issues

- Biases:
  - Color
  - Race
  - Gender
  - Age?

- Obstruction by physical differences

- Lighting
HOME & PERSONAL USE
Security of Home/Devices

- Cameras at door & Outside home
- Inside house
- Inside on appliances
- Lighting
Access to Devices

- Built-in
- Cell phones
- Tablets
- Laptops
- Phones
Banking/Healthcare

• Authentication uses well established
• New uses now being pursued

mHealth Platform Tracks Vital Signs With a Camera

A Hospital in Scotland is testing a digital health tool that uses facial recognition and gaming technology to collect vital signs from several patients at once.
Social Media

- Tagging Yourself
- Others Tagging You
- Privacy Options
- Account or Not?
- Use by Others?
- Companies Tagging
Legal Issues

VIDEO REMOVED FOR SIZE

State Biometrics Laws (Illinois, Texas, Washington), Lawsuits
Underlying Data?

- Algorithms
- Storage
- Image
- Resulting data
- Deidentification even possible?
Out in Public

- Law Enforcement
  - Passive
  - Active
- Mass surveillance
- Roads
- Cities
- China, NYC, UK
Cameras at Events

- Super Bowl
- National Security Events
- Olympics
Cameras at Transportation

- Airports
- Train Stations
- Metro
- Ferries
- Customs
Medical Conditions

- Syndrome: $n = 1,518$
- Controls: 211
- Angelman: 257
- Apert: 283
- Down: 209
- Fragile X: 185
- Progeria: 100
- Treacher-Collins: 118
- Williams-Beuren: 236
Access

- Building Entry
- Visitors
- Access & Authorization
- Buddy Punching
- Auditing
Categories of Risk

- Biometric Laws (TX, IL, WA)
- Data Breach Laws
- Access & Authorization
- General Public Privacy
- International
CONTROLS
Controls

- Hats
- Glasses
- Outerwear
By June 1
- Pull together HR, CISO/CSO, CPO, CTO
- Understand your company’s current use of biometrics (internally)
- Pull together internal polices and guidelines

By August 1
- Understand your company’s current use of biometrics (externally)
- Pull together terms and privacy policy
- Review Third Party Vendors
- Understand onward use of data
- Began socializing with the Board for a Q3 delivery
By November 1
- Understand roadmap changes for biometrics internally & externally
- Have reviewed and amended any policies
- Socialized with the Board

By January 1
- Understand all current (internal and external uses)
- Policies up to date and on annual review
- Tagging of legal cases and laws
- Risk rating for all vendors
- Understanding how facial biometrics fits in with business cases for 2019
About Us

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Appendix

- Study on Facial ID at Airports - www.airportfacescans.com
- Illinois Biometric Information Privacy Act – 740 ILCS 14/1 et seq.