

RSA® Conference 2018

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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



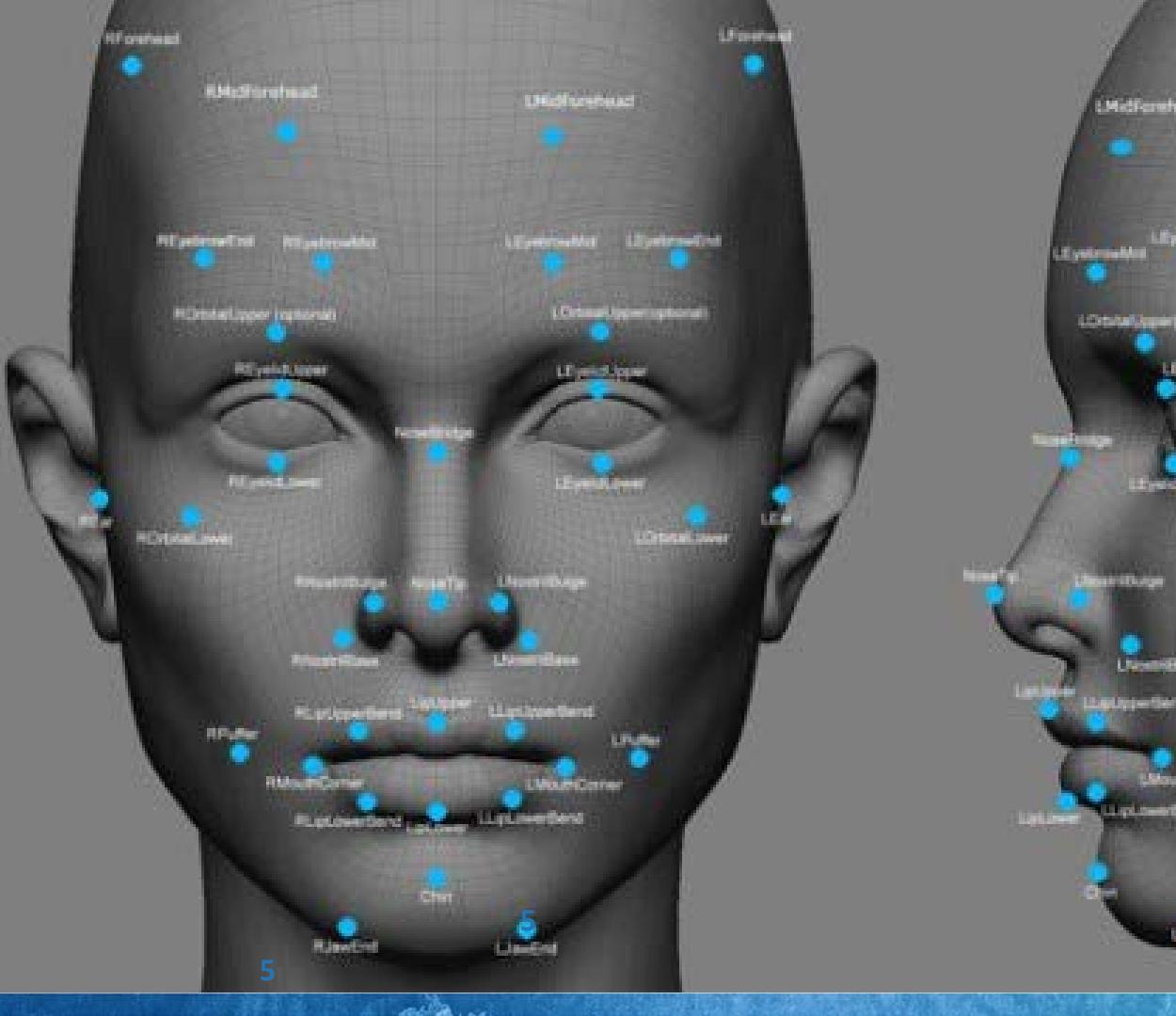
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ABOUT THE TECHNOLOGY

Positive Uses

- Security Enhancing
 - Access
 - Authorization
 - Auditing
- Privacy Enabling
 - U r U
 - Control

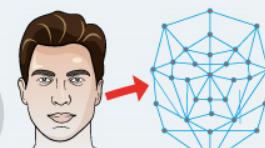
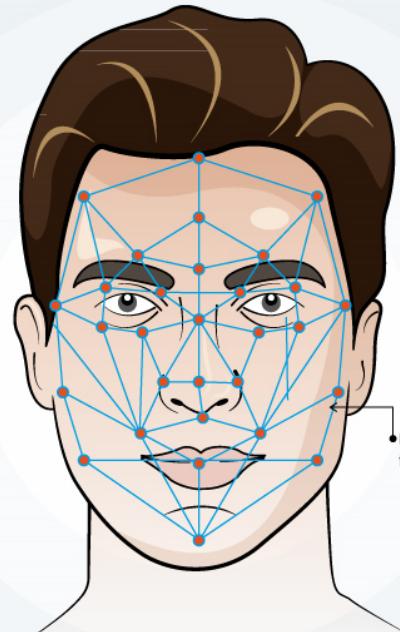


About & Basics of How it Works



STEP BY STEP

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



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.

Source: Mint research

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



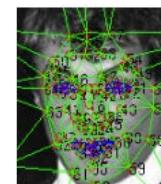
Business establishments



(a)



(b)



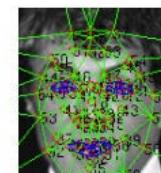
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(d)



(e)



(f)



(g)



(h)

Graphic: Yatish Asthana/Mint

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 **BINARY SUN**
CYBER RISK ADVISORS

Issues



- Biases:
 - Color
 - Race
 - Gender
 - Age?
- Obstruction by physical differences
- Lighting



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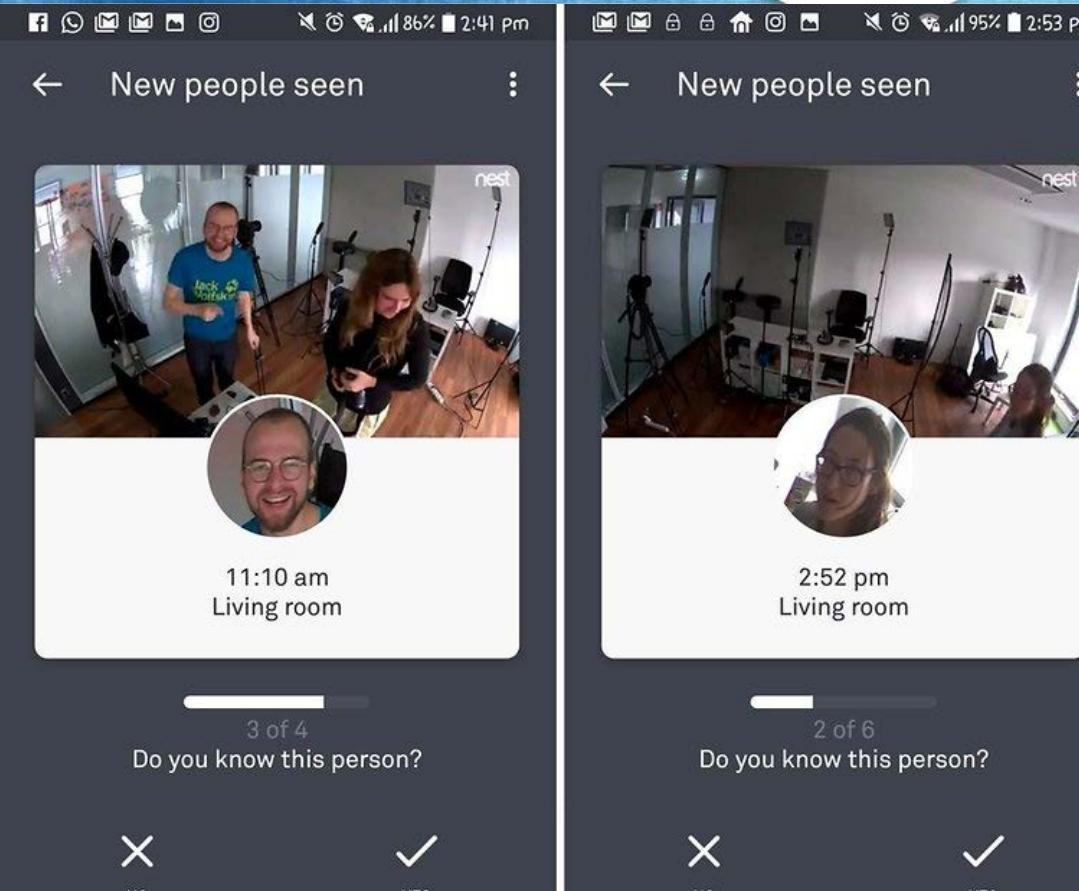


HOME & PERSONAL USE

Security of Home/Devices



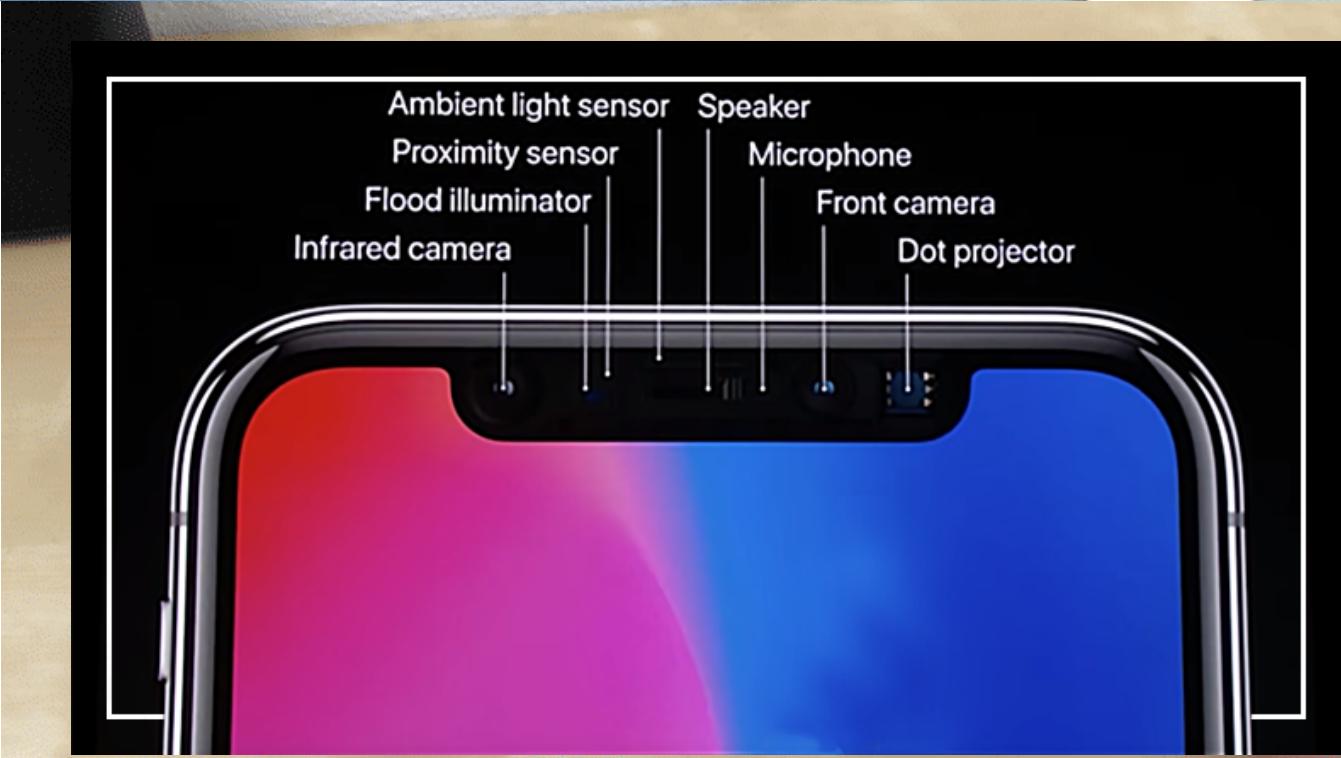
- Cameras at door & Outside home
- Inside house
- Inside on appliances
- Lighting



Access to Devices



- Built-in
- Cell phones
- Tablets
- Laptops
- Phones





- Authentication uses well established
- New uses now being pursued

mHealth Platform Tracks Vital Signs With a Camera

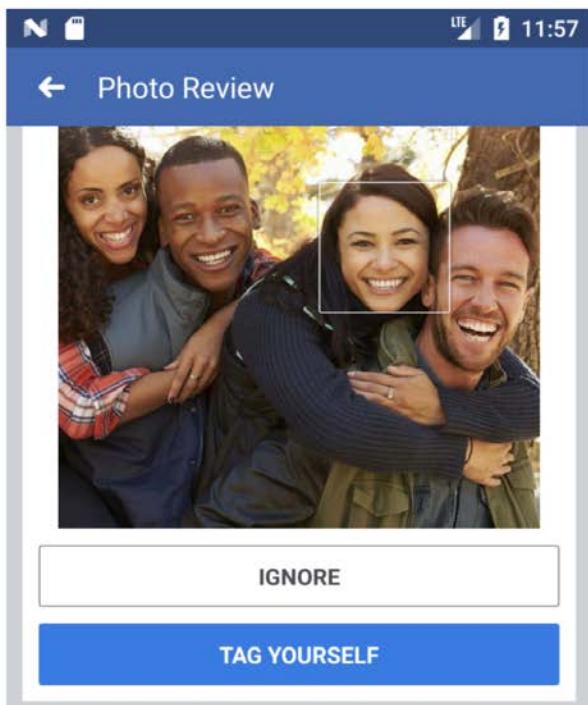
A Hospital in Scotland is testing a digital health tool that uses facial recognition and gaming technology to collect vital signs from several patients at once.



Social Media



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





VIDEO REMOVED FOR SIZE

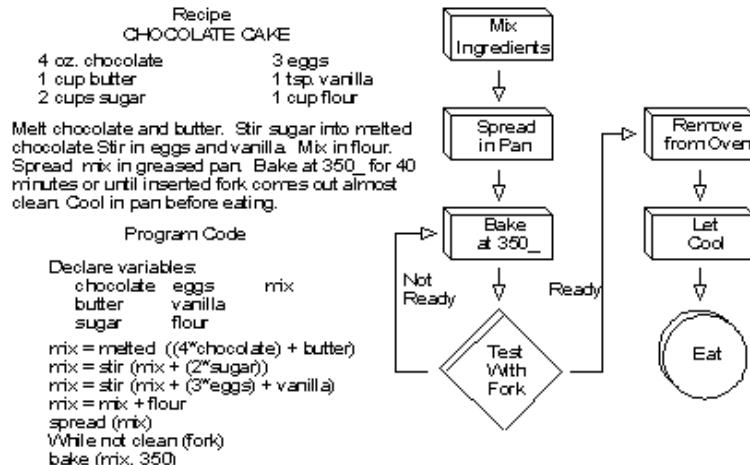
State Biometrics Laws (Illinois, Texas, Washington), Lawsuits

Underlying Data?



- Algorithms
- Storage
 - Image
 - Resulting data
- Deidentification even possible?

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OUT IN PUBLIC / GOVERNMENT USE

Out in Public



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



Cameras at Events

- Super Bowl
- National Security Events
- Olympics

DECLAN MCCULLAGH BUSINESS 02.02.01 12:00 PM

CALL IT SUPER BOWL FACE SCAN I



WASHINGTON — The Super Bowl was packed in 2013, but the fans weren't the only ones who watched the game.

Face-recognition technology, which has been passing through airports and other public places with the promise of greater security, is now being used to control rights to the game.

Legal experts say the technology is unintrusive and could help protect fans from being targeted by future offenders.

As cameras and other technologies become more known for their potential to track people from direct video feeds, privacy advocates are worried about how they might be used.



Cameras at Transportation



- Airports
- Train Stations
- Metro
- Ferries
- Customs



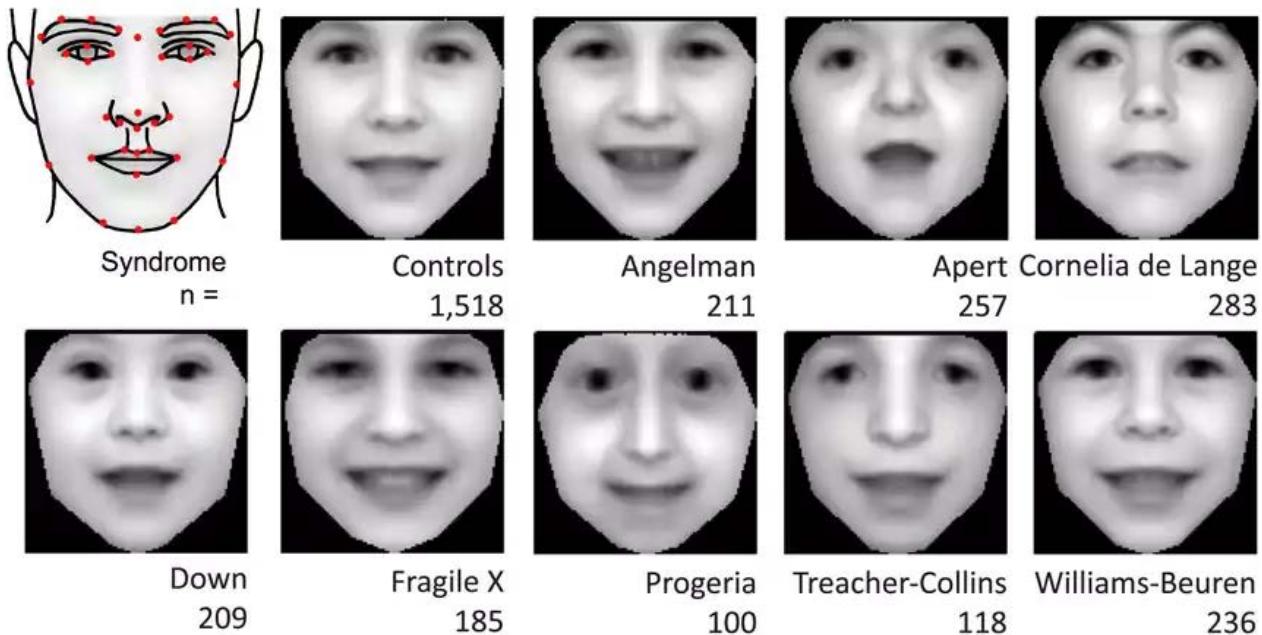
Balancing Privacy & Security



Issues



● Medical Conditions



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CORPORATE ENVIRONMENT

Access



- Building Entry
- Visitors
- Access & Authorization
- Buddy Punching 
- Auditing



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LEGAL THEMES

Categories of Risk



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

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CONTROLS

Controls



- Hats
- Glasses
- Outerwear



“Apply” Slide



By June 1

- Pull together HR, CISO/CSO, CPO, CTO
- Understand your company's current use of biometrics (internally)
- Pull together internal policies 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

“Apply” Slide



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



- Not ready for takeoff -
<https://assets.documentcloud.org/documents/4334243/Georgetown-Law-report-on-airport-facial.pdf>
- MIT Study -
<http://proceedings.mlr.press/v81/buolamwini18a/buolamwini18a.pdf>
- Study on Facial ID at Airports - www.airportfacescans.com
- Illinois Biometric Information Privacy Act – 740 ILCS 14/1 et seq.
- Texas Biometric Privacy Act – Tex. Bus. & Com. Code – 503.001 et seq.