

Video Analytics

Information Privacy with Applications
David Sidi (dsidi@email.arizona.edu)

Administration

- Integrated session assignment: due before class this Thursday
- VM for the assignment after that, on face detection

Small mention of interesting things

- Bodyguard FLARE home security camera ([link](#). Also, among the [funniest videos I've seen](#))
- A depolarized monitor matched to polarizing glasses ([link](#))



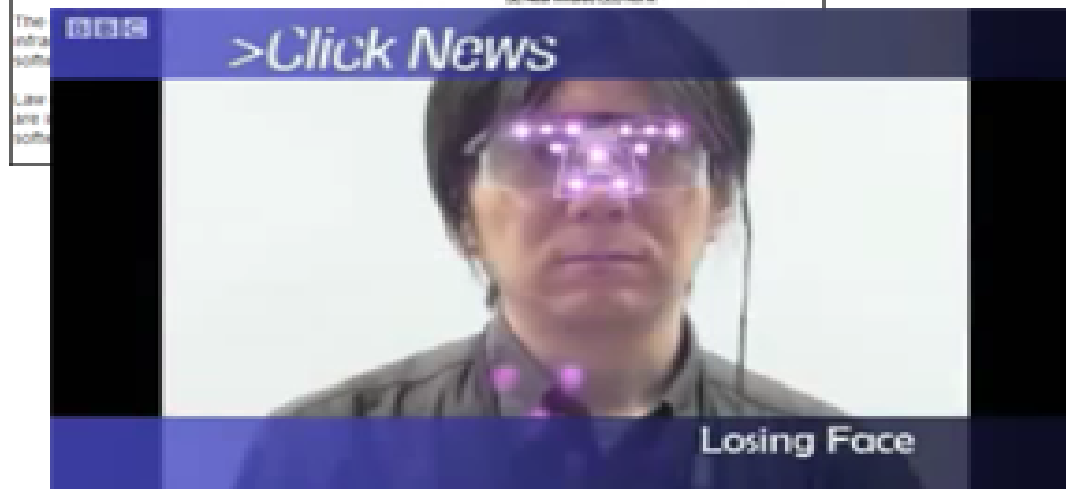
All this for 10% decrement in performance?

https://link.springer.com/chapter/10.1007/978-3-319-41501-7_38



Question: is this about unobservability, unlinkability, or anonymity?





**取り上げられたメディアは
TIME, BBC, NBC, ABC,
NY Times, Spiegel,
ACM Tech Newsなど
海外300以上。
海外でも待ち望まれています！**



Figure 1: Can you see the face in each of these images? Facebook’s automatic face detector can detect and localize all six faces shown above, even when we try to hide the face by (A) adding occluding noise, (B) adding distortion, (C) blurring the face region, or (D) altering image lighting. Deliberate countermeasures such as (E) wearing a “privacy visor” with infrared LEDs [24] or (F) wearing “Dazzle”-style makeup [9] are not always effective—sometimes Facebook can see through these disguises too. Facebook may not be able to recognize these faces, but if Facebook can detect them, it may prompt friends to tag these hard faces and reveal their identity.

Wilbur et al.,
“Can we still
avoid automatic
face detection?”



Tricking state of the
art face detection

Figure 8: All 30 missed faces in the COFW training set.

Disguised Face Identification

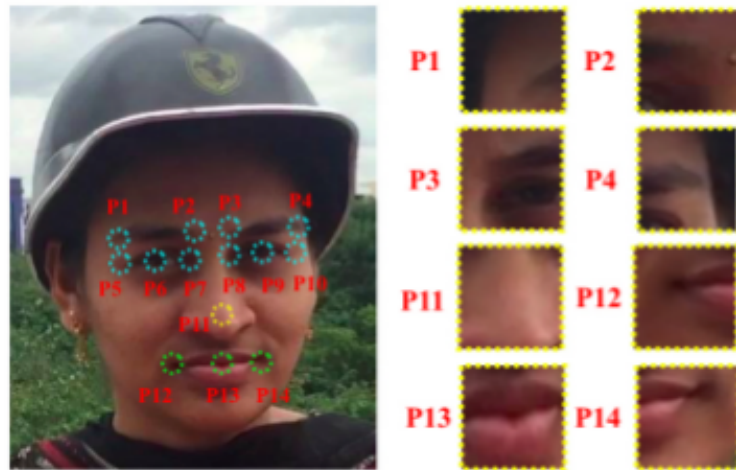


Figure 1: The figure (left) illustrates the 14 facial key-points annotated for both the introduced datasets. The description of the facial points is as: Eyes region (cyan): P1- left eyebrow outer corner, P2- left eyebrow inner corner, P3- right eyebrow inner corner, P4- right eyebrow outer corner, P5- left eye outer corner, P6- left eye center, P7- left eye inner corner, P8- right eye inner corner, P9- right eye center, P10- right eye outer corner; Nose region (yellow): P11- nose; Lip region (green) P12- lip left corner, P13- lip centre, P14- lip right corner. Few key points have been shown on the right.



Figure 2: The illustration shows samples images with different disguises from both the Simple and Complex face disguise (FG) datasets. As seen from the image, the samples from the complex background dataset have a relatively complicated background as opposed to the simple dataset.

data. However, such datasets are not available (small:

Disguised Face Identification

55% accuracy on easier dataset

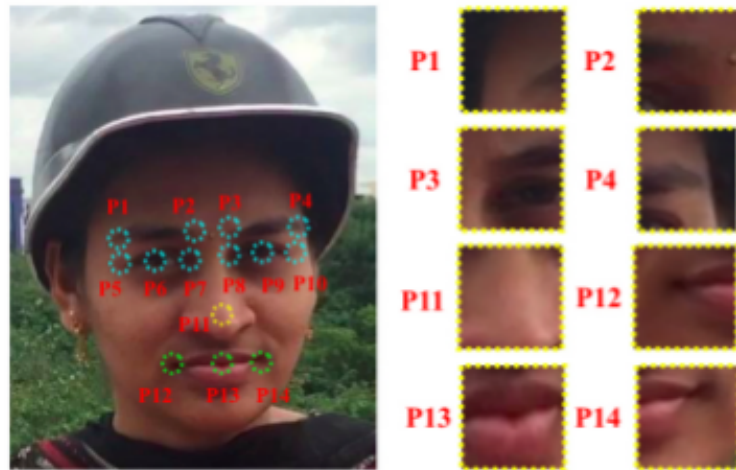


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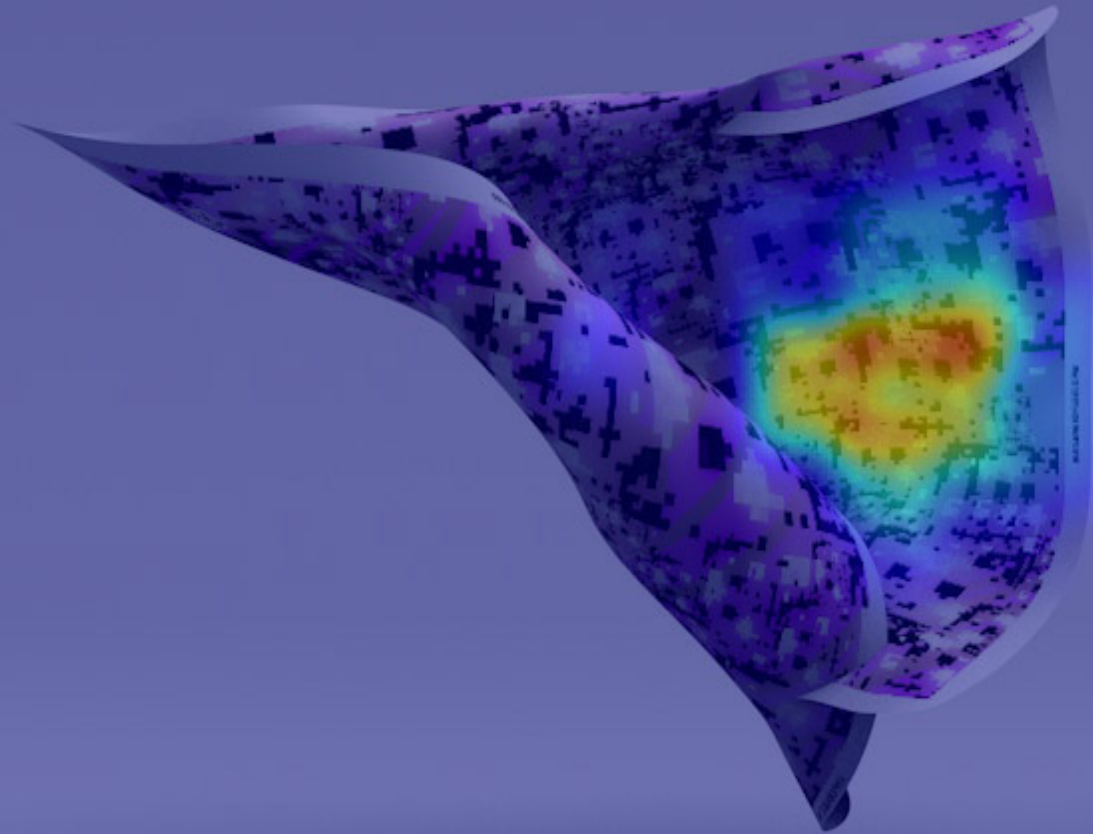
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Simple Obfuscation

- “If privacy both as impossible-to-observe and impossible-to-identify is dead, then what might be an alternative? If you’re an optimist or an apparatchik, your answer will tend toward rules of procedure administered by a government you trust or control. If you’re a pessimist or a hacker/maker, your answer will tend toward the operational, and your definition of a state of privacy will be mine: the effective capacity to misrepresent yourself.”

Geer, ‘Identity as Privacy’

HyperFace™



HyperFace™ Type-01 Prototype / Adam Harvey

Rendering by Ece Tankal / Hyphen-Labs



Michael Jackson >

Michael Jackson >

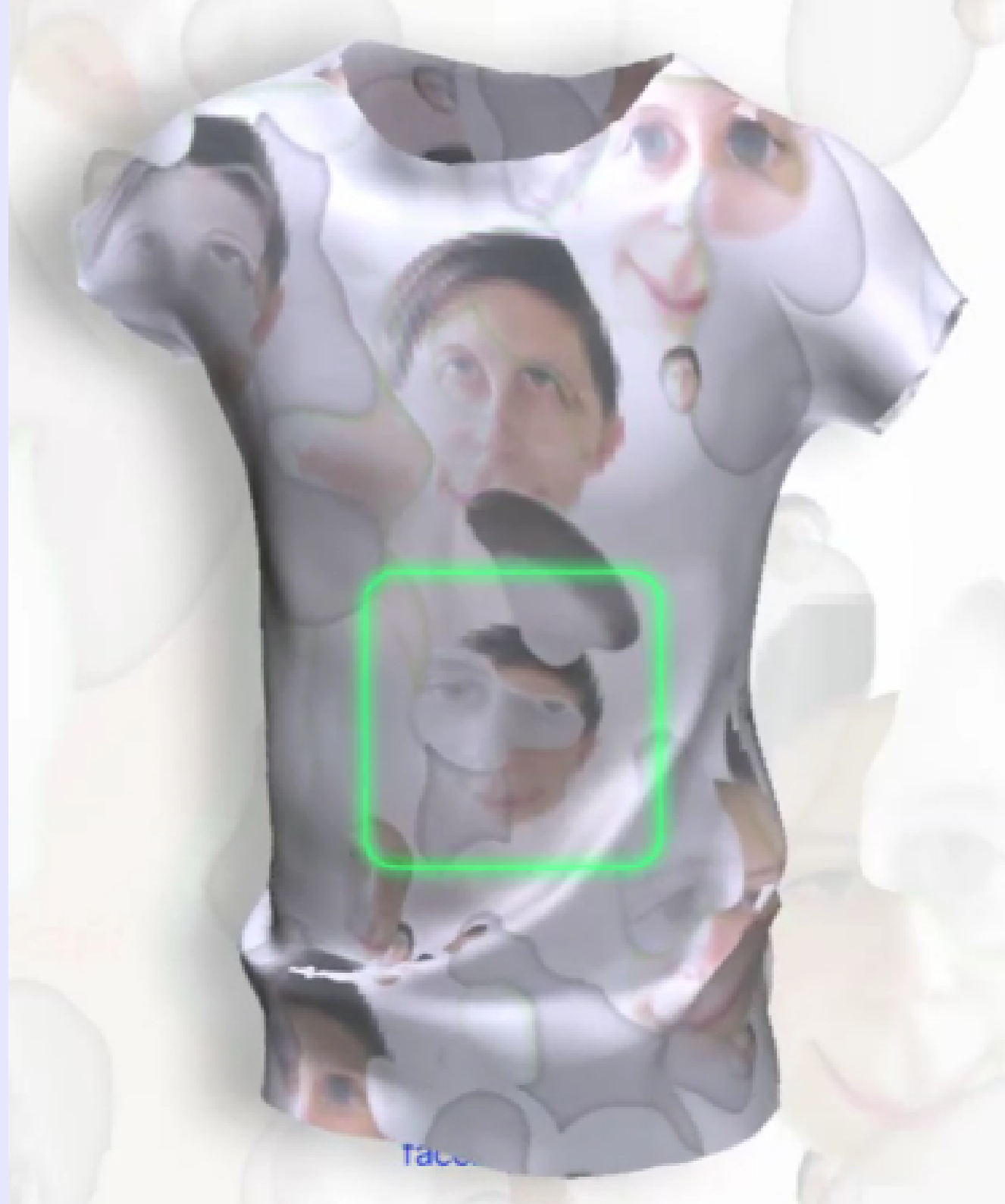
Michael Jackson >

Michael Jackson >

Barack Obama >

Barack Obama >

Barack Obama >



face