CS 3001-C: Computing, Society, and Professionalism

Munmun De Choudhury | Associate Professor | School of Interactive Computing
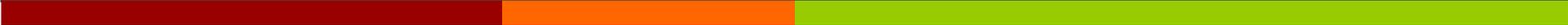
Week 12: Algorithmic Surveillance
March 27, 2022
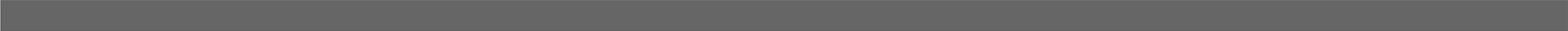
EMMA WATSON   TOM HANKS

THE
CIRCLE

KNOWING IS GOOD.
KNOWING EVERYTHING IS BETTER.

4.28.17

NATIONAL

Facebook Increasingly Reliant on A.I. To Predict Suicide Risk

November 17, 2018 · 5:00 AM ET
Heard on All Things Considered

MARTIN KASTE

▶ **4-Minute Listen** + PLAYLIST

Privacy and ethics violations lie in the backdrop of surveillance

Promises of technology and the Internet

Engineering the public: Big data, surveillance
and computational politics
by Zeynep Tufekci

However, big data also needs to be examined as a political process involving questions of power, transparency and surveillance

Computational politics by Tufecki et al.

Computational politics:
Contrasting yesterday and today

Engineering the Public - Tufekci

1. The rise of big data

2. The shift away from demographics to individualized targeting

3. The opacity and power of computational modeling

4. The use of persuasive behavioral science

5. Digital media enabling dynamic real-time experimentation

6. The growth of new power brokers who own the data or social media environments

3. Power of computational modeling

4. Behavioral science

The Cambridge Analytica Files
Cambridge Analytica

Revealed: 50 million Facebook profiles harvested for Cambridge Analytica in major data breach

Whistleblower describes how firm linked to former Trump adviser Steve Bannon compiled user data to target American voters

- **'I made Steve Bannon's psychological warfare tool': meet the data war whistleblower**
- **Mark Zuckerberg breaks silence on Cambridge Analytica**

5. Experimental science in real–time environments

6. Power of platforms and algorithmic governance

6. Power of platforms and algorithmic governance

nature > letters > article

a natureresearch journal

nature

MENU ⌄

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Letter | Published: 12 September 2012

A 61-million-person experiment in social influence and political mobilization

Robert M. Bond, Christopher J. Fariss, Jason J. Jones, Adam D. I. Kramer, Cameron Marlow, Jaime E. Settle & James H. Fowler ✉

10k Accesses | **872** Citations | **1571** Altmetric | Metrics

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Editorial Summary

An off-line side to online social networking

Online social networks are everywhere. They must be influencing the way society is developing, but hard evidence is scarce. For...

show more

Avoiding being subject to computational politics?

Two case studies

Automatic Crime Prediction using Events Extracted from Twitter Posts

Xiaofeng Wang, Matthew S. Gerber, and Donald E. Brown

Department of Systems and Information Engineering, University of Virginia
{xw4u,msg8u,brown}@virginia.edu

Once Upon a Crime: Towards Crime Prediction from Demographics and Mobile Data

Andrey Bogomolov	Bruno Lepri	Jacopo Staiano
University of Trento,	Fondazione Bruno Kessler	DISI, University of Trento
Telecom Italia SKIL Lab	Via Sommarive, 18	Via Sommarive, 5
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| Nuria Oliver	Fabio Pianesi	Alex (Sandy) Pentland
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POLICING THE FUTURE

In the aftermath of Ferguson, St. Louis cops embrace crime-predicting software

By Maurice Chammah, with additional reporting by Mark Hansen

Photography by Whitney Curtis

Just over a year after Michael Brown's death became a focal point for a national debate about policing and race, Ferguson and nearby St. Louis suburbs have returned to what looks, from the outside, like a kind of normalcy. Near the Canfield Green apartments, where Brown was shot by police officer Darren Wilson, a sign reading "Hands Up Don't Shoot" and a mountain of teddy bears have been cleared away. The McDonald's on West Florissant Avenue, where protesters nursed rubber bullet wounds and escaped tear gas, is now just another McDonald's.

Half a mile down the road in the city of Jennings, between the China King restaurant and a Cricket cell phone outlet, sits an empty room that the St. Louis County Police Department keeps as a substation. During the protests, it was a war room, where law enforcement leaders planned their responses to the chaos outside.

**

ST. LOUIS COUNTY

ST CHARLES
FLORISSANT
FERGUSON
JENNINGS
CHESTERFIELD
Mississippi River
St. Louis
BALLWIN
KIRKWOOD
FENTON
MEHLVILLE

5 MILES

ST. LOUIS COUNTY POLICE
DEPARTMENT JURISIDICTION

ST CHARLES
FLORISSANT
FERGUSON
JENNINGS
CHESTERFIELD
Mississippi River
St. Louis
BALLWIN
KIRKWOOD
FENTON
MEHLVILLE

5 MILES

HUNCHLAB CRIME MAP

I-70
ST CHARLES
FLORISSANT
FERGUSON
JENNINGS
270
MARYLAND HEIGHTS
I-64
CHESTERFIELD
CREVE COEUR
Mississippi River
CLAYTON
St. Louis
WILDWOOD
BALLWIN
KIRKWOOD
I-55
I-44
FENTON
MEHLVILLE
255

5 MILES

**

The Ethical Problem…

Do you think use of softwares like HunchLab can indeed minimize unjust police brutality incidents toward people of color?

The Washington Post

Democracy Dies in Darkness

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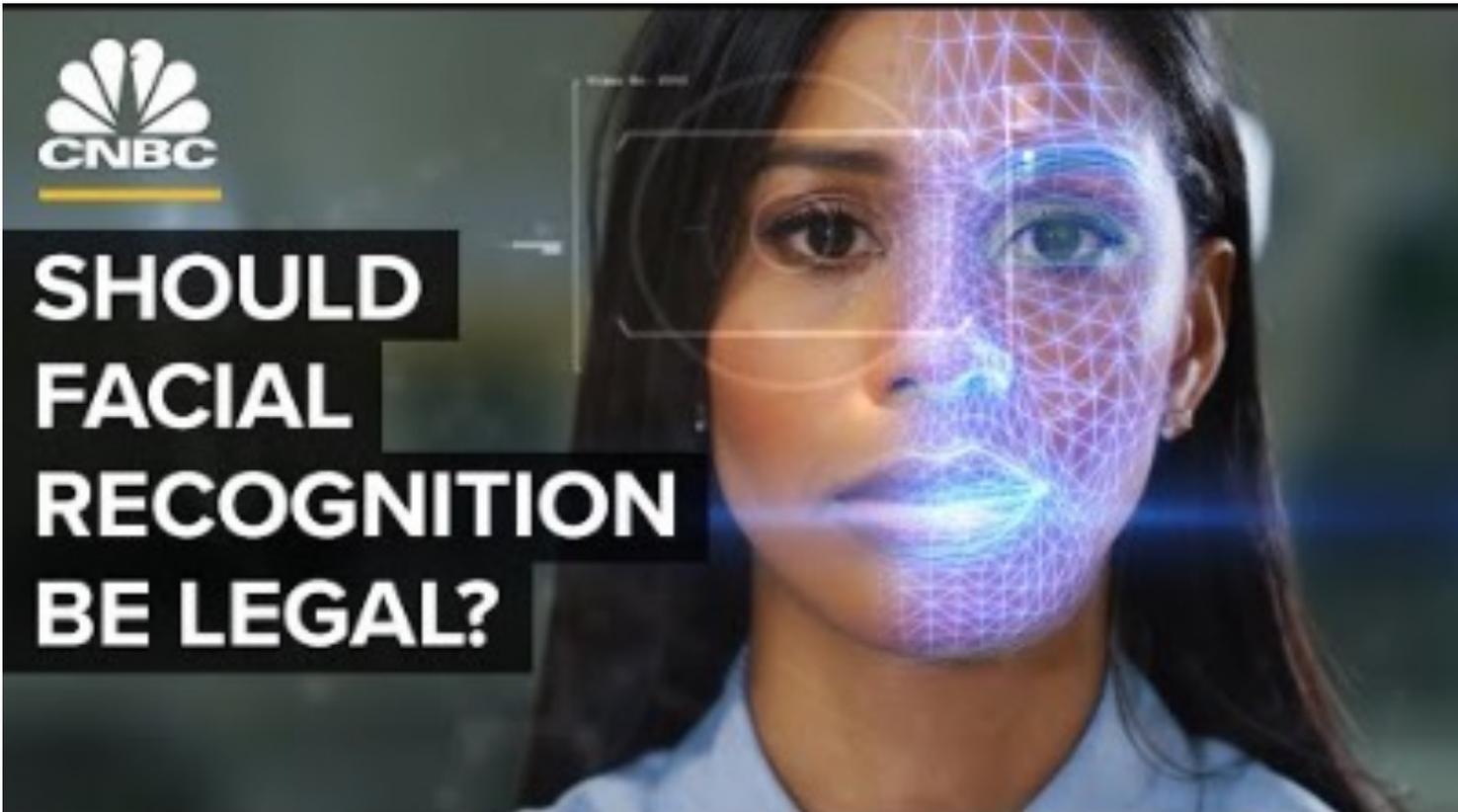
Technology

Colleges are turning students' phones into surveillance machines, tracking the locations of hundreds of thousands

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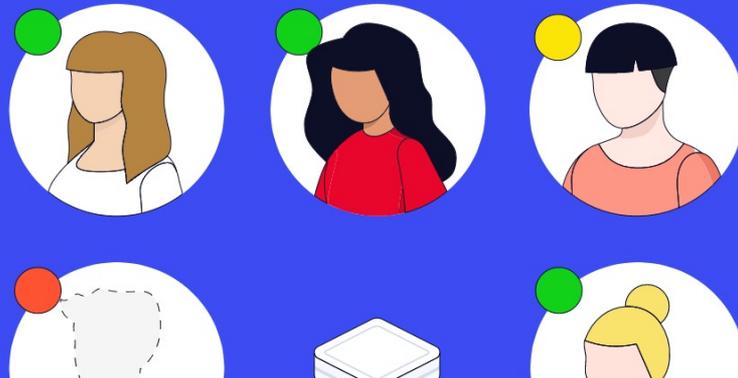
An automated attendance monitoring and early alerting

**

StudentLife: Assessing Mental Health, Academic Performance and Behavioral Trends of College Students using Smartphones

Rui Wang[†]**, Fanglin Chen**[†]**, Zhenyu Chen**[†]**, Tianxing Li**[†]**, Gabriella Harari**[‡]**,
Stefanie Tignor**[∗]**, Xia Zhou**[†]**, Dror Ben-Zeev**[†]**, and Andrew T. Campbell**[†]

Dartmouth College[†], The University of Texas at Austin[‡], Northeastern University[∗]
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(a) EMA and sleep data

(b) Automatic sensing data

(c) Location-based data
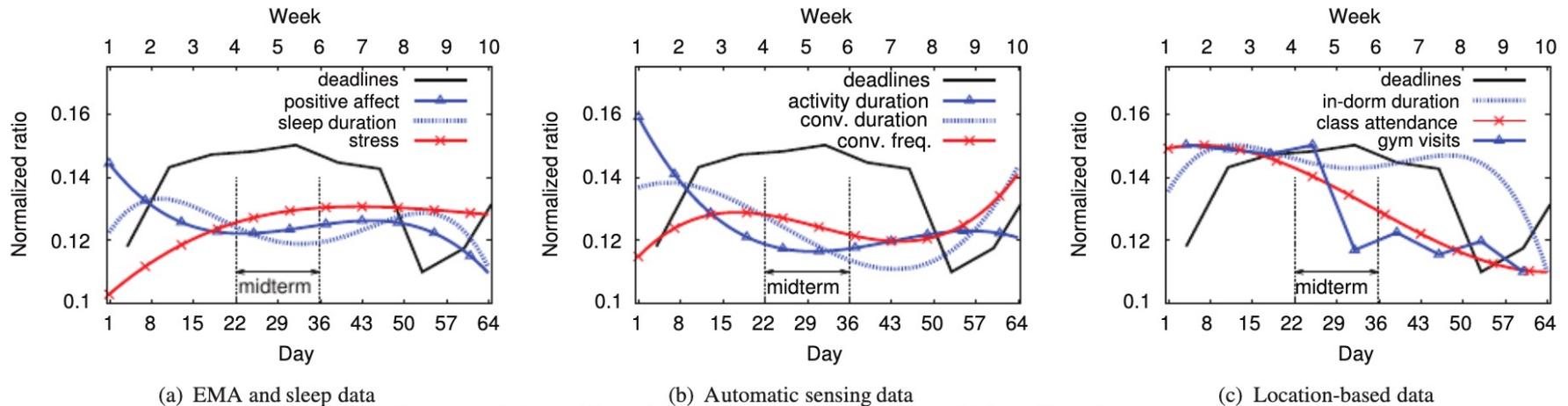
Figure 5. Dartmouth term lifecycle: collective behavioral trends for all students over the term.

Technology

Parkland school turns to experimental surveillance software that can flag students as threats

Thought Point…

Contrasting the three types of school/college student behavioral monitoring: 1) Attendance surveillance; 2) Mental health surveillance; 3) Violence surveillance

- Is one less or more (un)ethical than the other? Which one and why?
- Could we use an ethical theory to analyze it?