Relational Big Data

How Data Collection Influences How We Live, Work, and Interact

Karen Levy
Cornell University

Social and legal

dimensions of surveillance and data collection

How do we negotiate our relationships through information flow/restriction?

What's the relationship between privacy and socioeconomic justice?

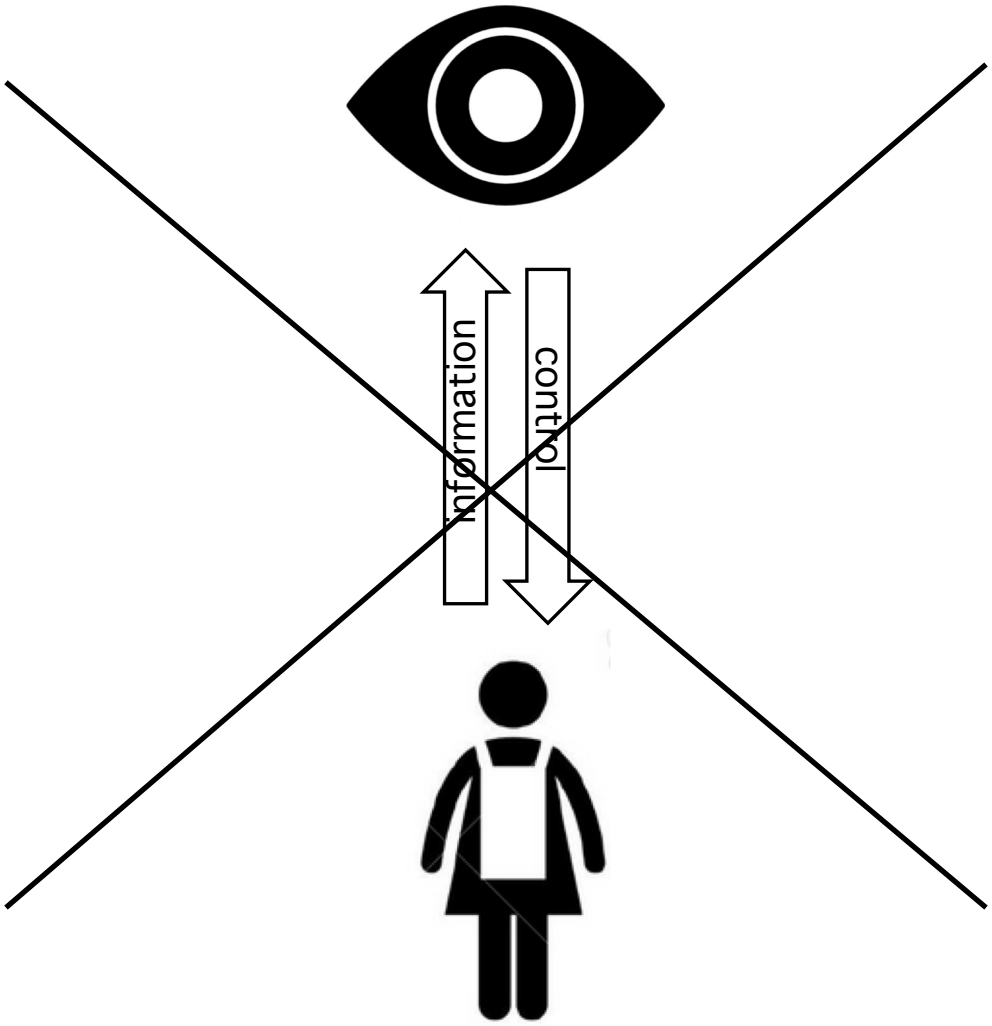
How do people resist data collection, and what purposes does it serve?

What's big about "big data"?

-- Computational power
-- Velocity/volume/variety
-- New methods

Data mediate our social relationships to an unprecedented degree – "relational" big data

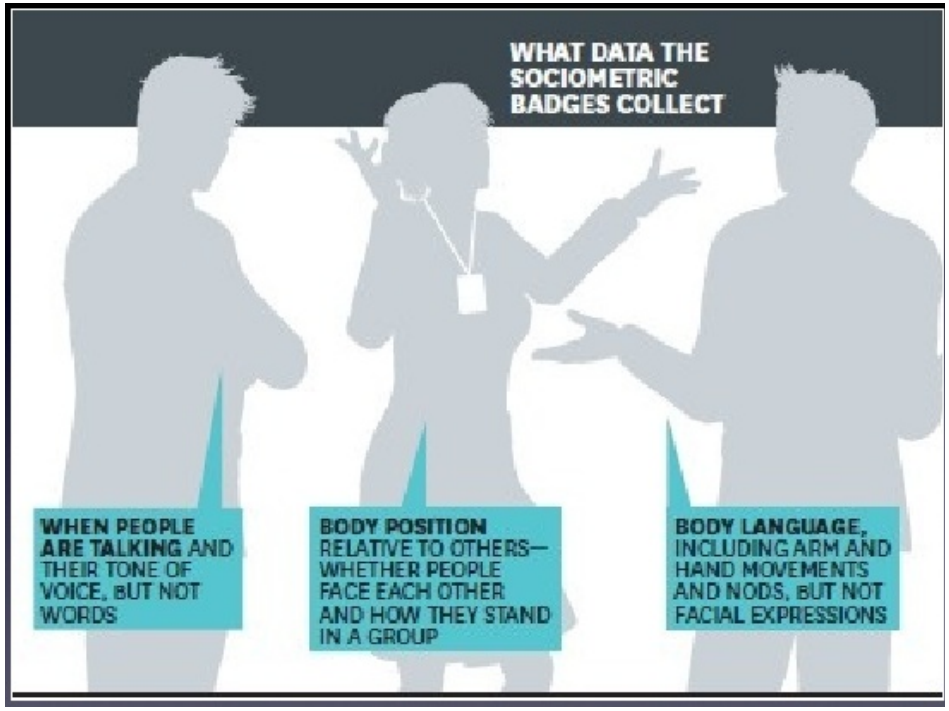
information
control


information
control

-- the workplace
-- the family
-- marginalized communities

Surveillance at work

New types of data capture


WHAT DATA THE SOCIOMETRIC BADGES COLLECT
WHEN PEOPLE ARE TALKING AND THEIR TONE OF VOICE, BUT NOT WORDS
BODY POSITION RELATIVE TO OTHERS—WHETHER PEOPLE FACE EACH OTHER AND HOW THEY STAND IN A GROUP
BODY LANGUAGE, INCLUDING ARM AND HAND MOVEMENTS AND NODS, BUT NOT FACIAL EXPRESSIONS

New types of workplaces

EMI Films presents
A ROBERT M. SHERMAN Production
KRIS KRISTOFFERSON · ALI MacGRAW "CONVOY"
BURT YOUNG also starring MADGE SINCLAIR · FRANKLIN AJAYE and ERNEST BORGNINE as 'Dirty Lyle'
Edited by GRAEME CLIFFORD · Screen Story and Screenplay by B.W.L. NORTON · Executive Producers MICHAEL DEELEY and BARRY SPIKINGS
PG PARENTAL GUIDANCE SUGGESTED SOME MATERIAL MAY NOT BE SUITABLE FOR CHILDREN
Produced by ROBERT M. SHERMAN · Directed by SAM PECKINPAH · PANAVISION®
United Artists A Transamerica Company
Read the Dell Book · Based on the record "CONVOY" by C. W. McCall
MOTION PICTURE MUSIC ALBUM AND TAPES AVAILABLE ON UNITED ARTISTS RECORDS

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"CONVOY"

Truckin' is one thing,
High-Ballin' is another,
and the way they do it is something else!

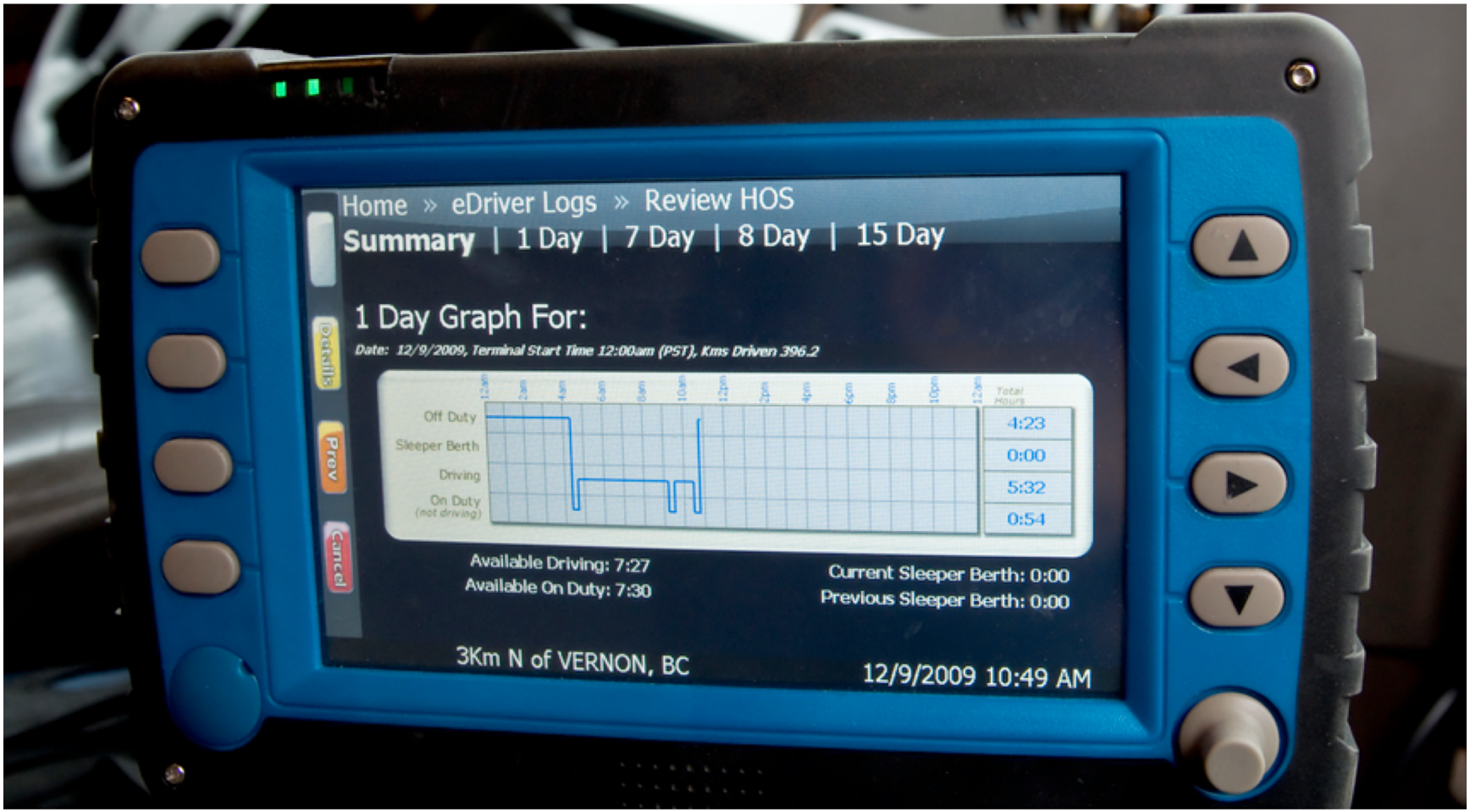
Stanley Chase/The Pando Company/Jon Slan presents

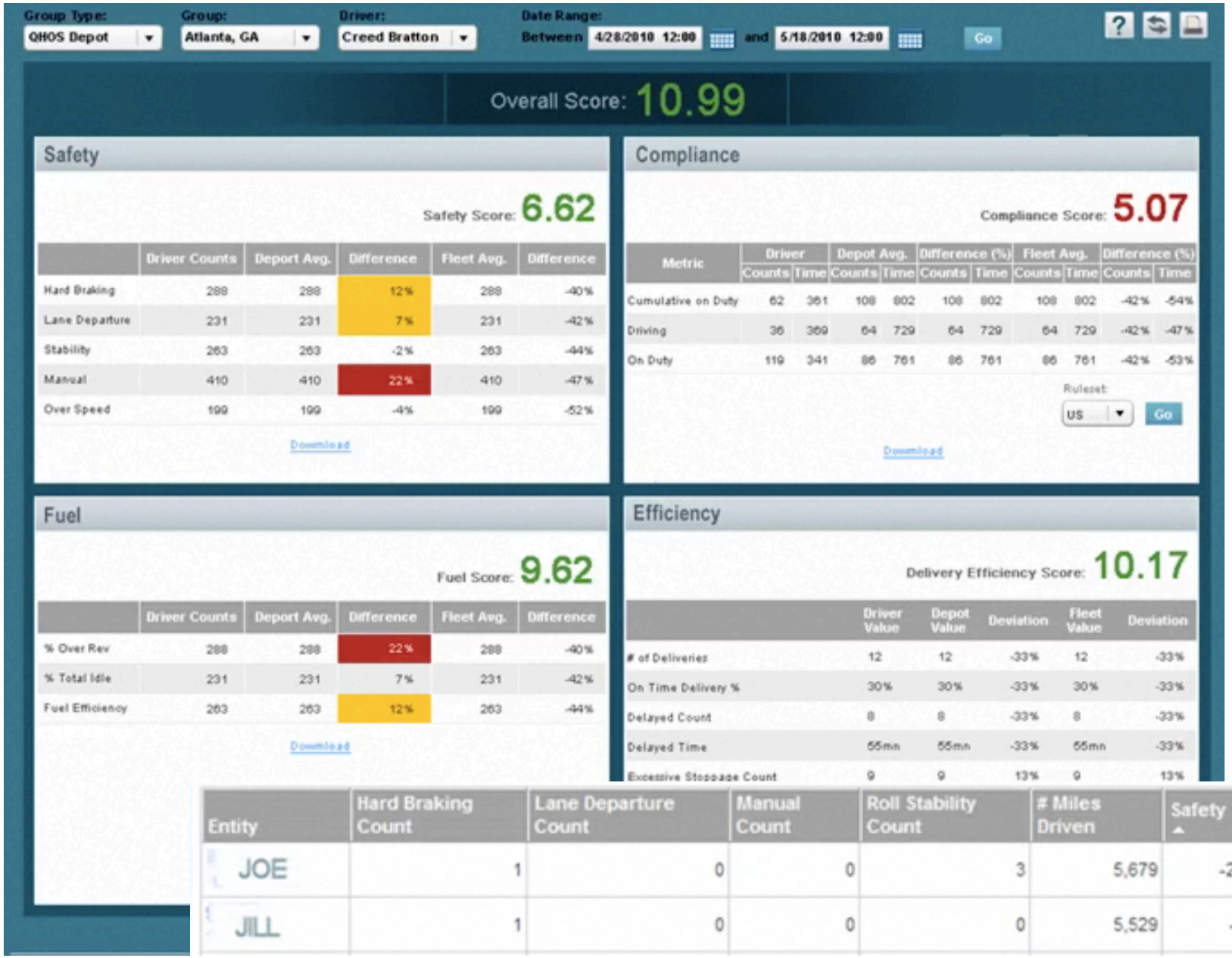
PETER FONDA JERRY REED

in HIGH-BALLIN'

Co-Starring Helen Shaver · Chris Wiggins

Executive Producers STANLEY CHASE and WILLIAM HAYWARD · Original Music Scored by PAUL HOFFERT
Story by RICHARD ROBINSON and STEPHEN SCHNECK · Screenplay by PAUL EDWARDS
Produced by JON SLAN · Directed by PETER CARTER
Color prints by MOVIELAB · An AMERICAN INTERNATIONAL Release
PG PARENTAL GUIDANCE SUGGESTED SOME MATERIAL MAY NOT BE SUITABLE FOR CHILDREN


Home » eDriver Logs » Review HOS
Summary | 1 Day | 7 Day | 8 Day | 15 Day
1 Day Graph For:
Date: 12/9/2009, Terminal Start Time 12:00am (PST), Kms Driven 396.2
Details
Prev
Cancel
Off Duty
Sleeper Berth
Driving
On Duty
(not driving)
Total Hours
4:23
0:00
5:32
0:54
Available Driving: 7:27
Available On Duty: 7:30
Current Sleeper Berth: 0:00
Previous Sleeper Berth: 0:00
3Km N of VERNON, BC
12/9/2009 10:49 AM



Entity	Hard Braking Count	Lane Departure Count	Manual Count	Roll Stability Count	# Miles Driven	Safety Score *
JOE	1	0	0	3	5,679	-250,263%
JILL	1	0	0	0	5,529	-83,388%

New information flows

Truck crash prediction

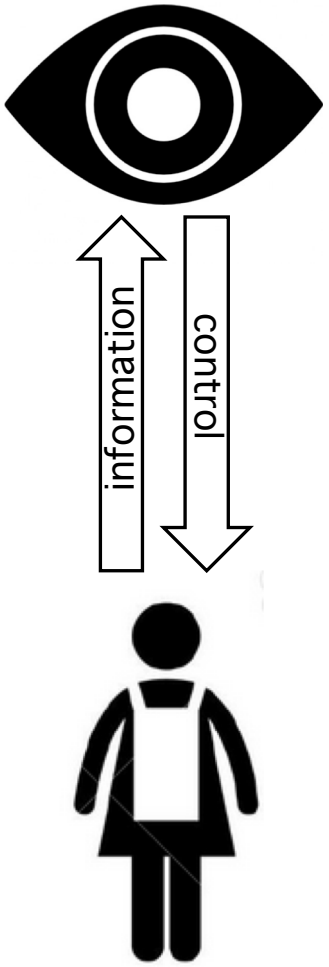
Now, consider the Omnitracs Analytics industry model for accident prediction.

They took driver logs and turned each one into about a thousand distinct data points—from the amount of time the truck driver drove each hour of the day, to how many hours of sleep that driver got and when those hours occurred, to how many times that driver drove through sunrise.

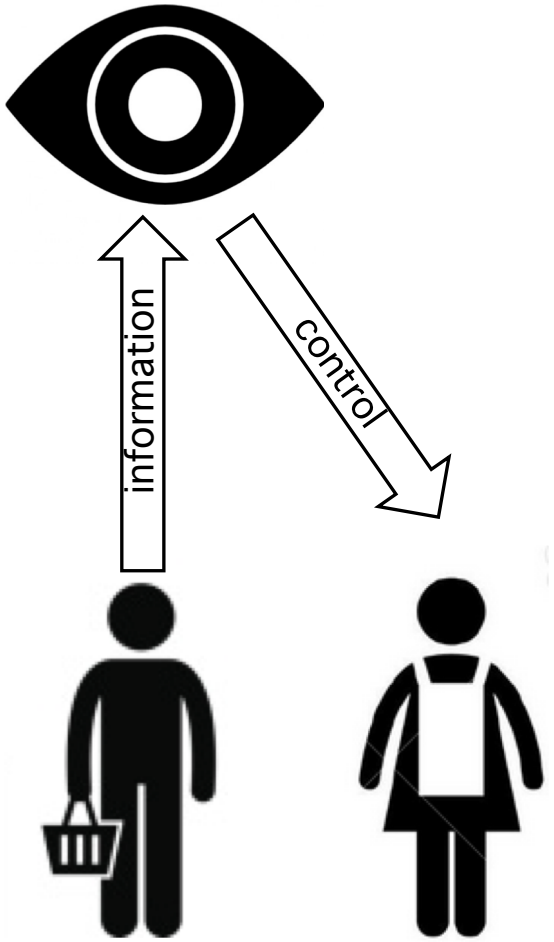
Then, they took 27,000 severe accidents from their customers' data sets and reverse engineered a severity model, which allowed them to identify predictive data points in a particular driver logbook that indicated the potential for a bad wreck.

The model is so good they can take any driver's log book and predict the likelihood of a bad accident each hour of his or her day.

Traditional surveillance



Refractive surveillance



Harvard Business Review

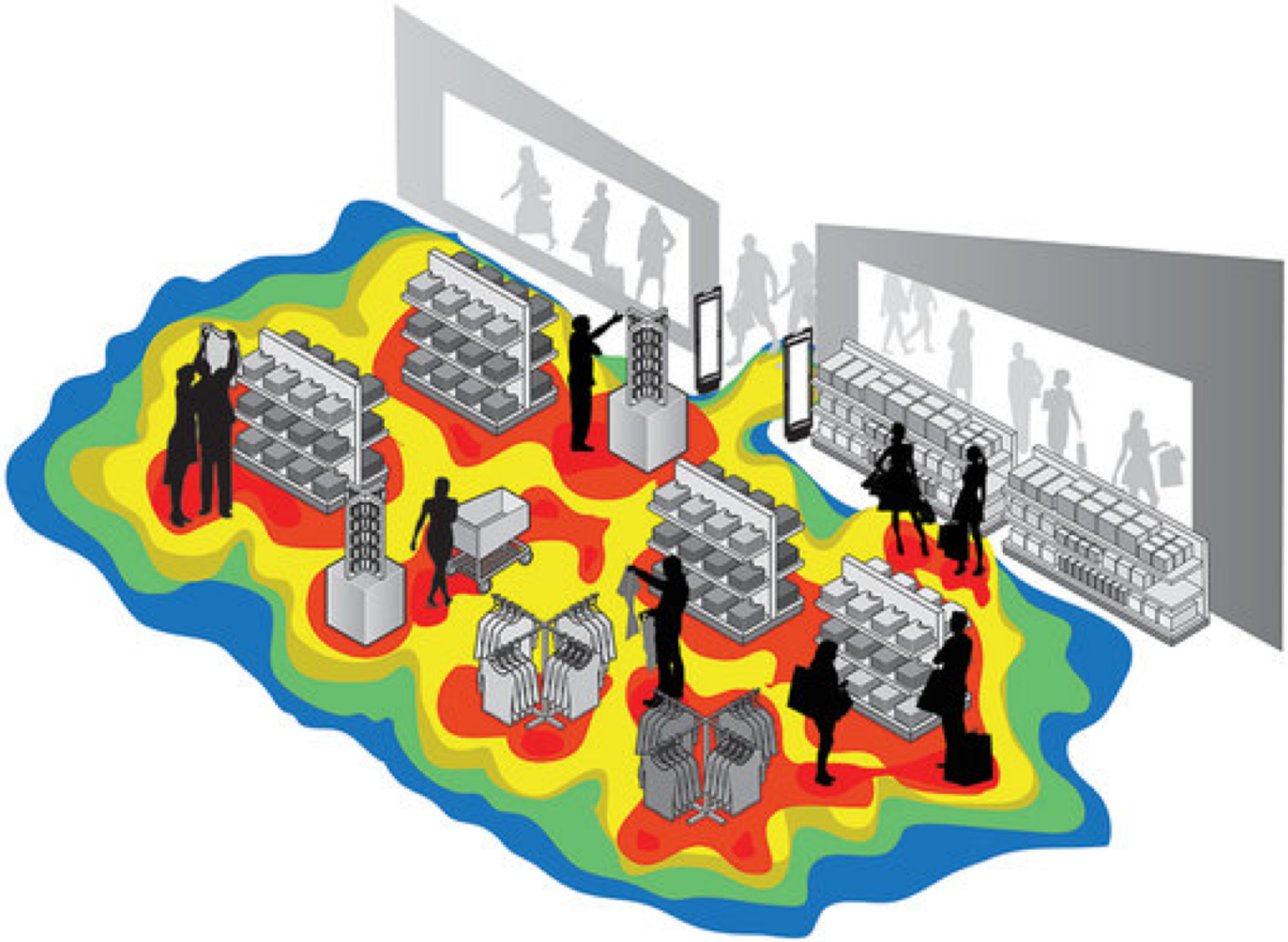
DATA

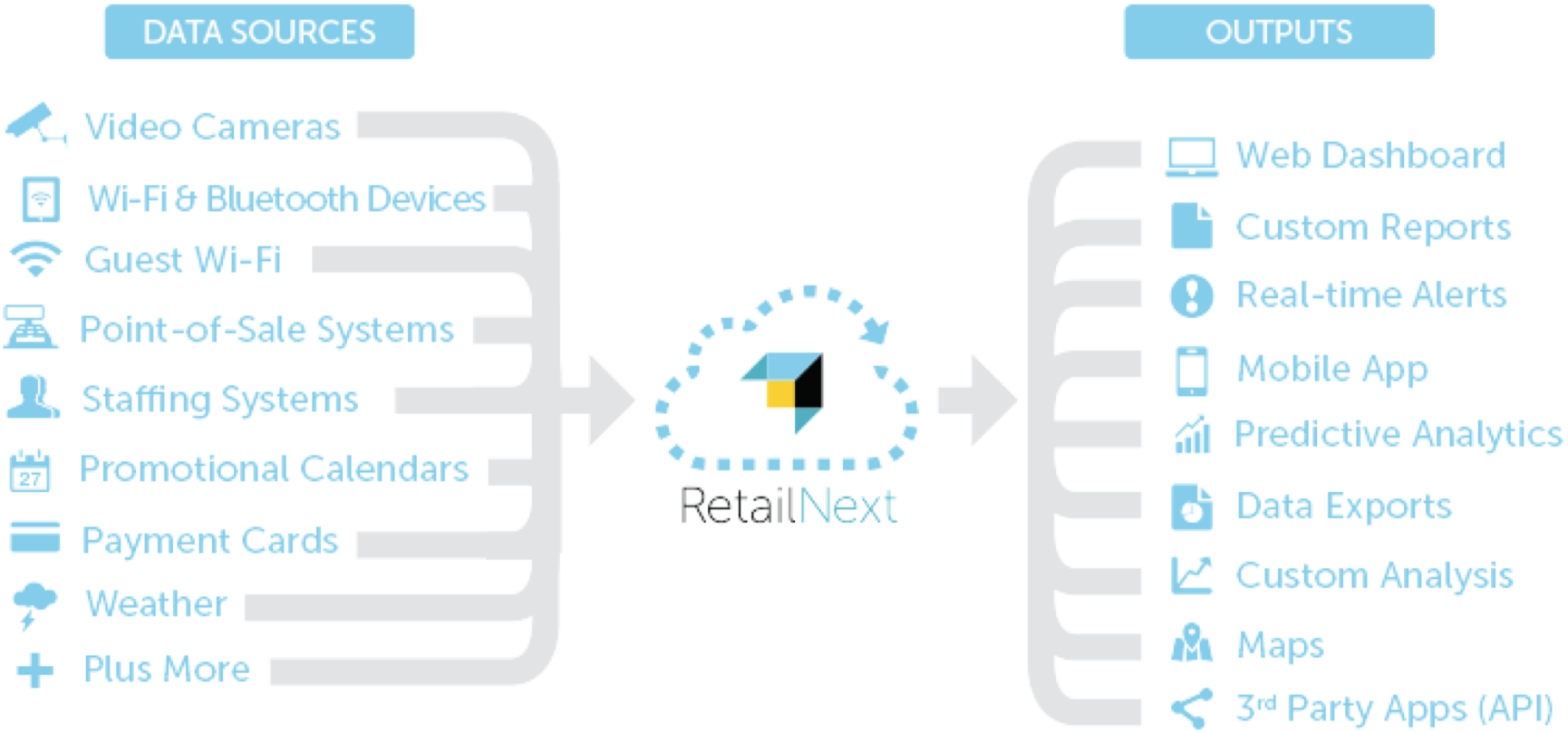
What Customer Data Collection Could Mean for Workers

by Solon Barocas and Karen Levy

AUGUST 31, 2016

SAVE | SHARE | COMMENT 0 | TEXT SIZE | PRINT | $8.95 BUY COPIES




DATA SOURCES
Video Cameras
Wi-Fi & Bluetooth Devices
Guest Wi-Fi
Point-of-Sale Systems
Staffing Systems
Promotional Calendars
Payment Cards
Weather
Plus More
RetailNext
OUTPUTS
Web Dashboard
Custom Reports
Real-time Alerts
Mobile App
Predictive Analytics
Data Exports
Custom Analysis
Maps
3rd Party Apps (API)

traffic sensing

preferences / shopping history

scheduling algorithms

interaction + exclusion detection

clienteling software

self-management tasks

schedule instability

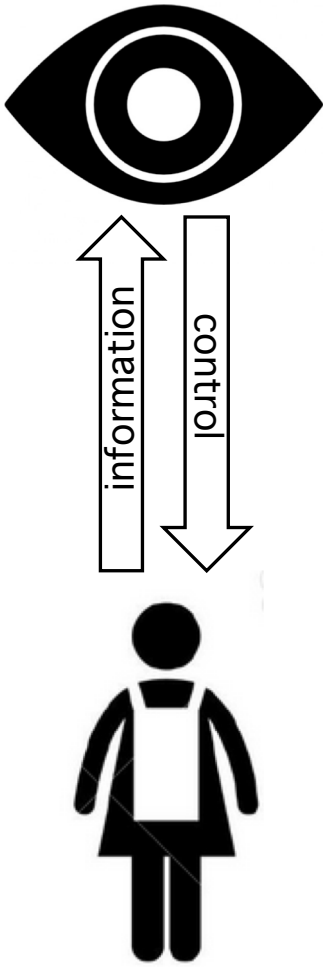
granular management + evaluation

substitutability

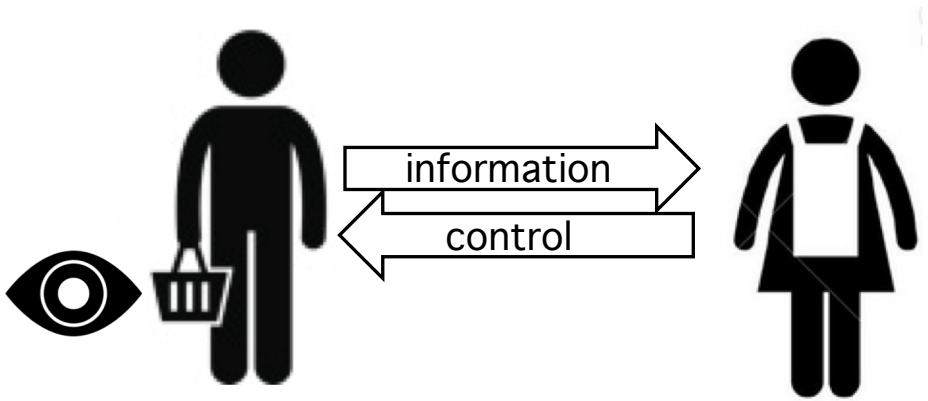
porosity of work boundaries

Intimacy and care

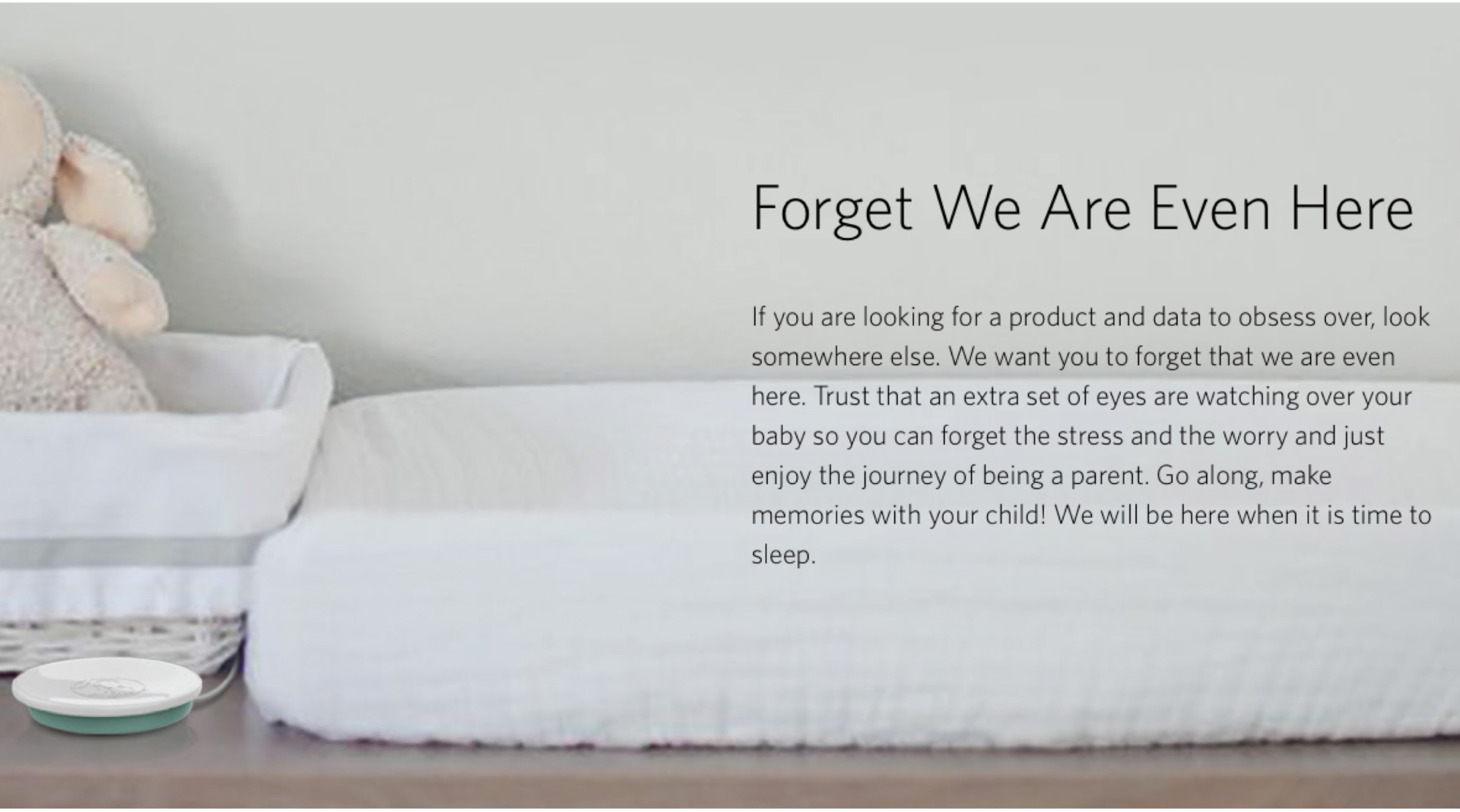
Traditional surveillance



Consumer as surveillor



JORDAN



Forget We Are Even Here

If you are looking for a product and data to obsess over, look somewhere else. We want you to forget that we are even here. Trust that an extra set of eyes are watching over your baby so you can forget the stress and the worry and just enjoy the journey of being a parent. Go along, make memories with your child! We will be here when it is time to sleep.

Heavy equipment tracking

Track and monitor your company's heavy equipment to prevent theft and optimize utilization.

Bank bag tracking

Protect bank bags with a location-aware tracking and recovery solution for banks.

Senior tracking | TBA

Secure, protect and locate the people that you value most, from children to aging parents.

High value retail tracking

Protect your high-value retail from theft with a covert, location-aware tracking solution.

Asset Tracker for Trailers™| Sprint®

Track trailers, track drivers, and monitor the condition of sensitive and perishable cargo.

Comfort Zone Check-In® | Alzheimer's Association®

Monitor a family member with Alzheimer's using on-demand and scheduled location requests.

Asset tracking | TBA

Track and monitor your enterprise's valuable

AmberWatch GPS™ | AmberWatch Foundation®

Use GPS and cellular technology to get your

Vehicle tracking

Find your car in a crowded parking lot, start

'Avonte's Law' Proposes GPS Tracking For Autistic Kids, But Is It Ethical?

Can We Microchip Our Kids to Prevent Kidnapping?

Parents are increasingly looking to technology to keep tabs on their progeny

By **Jordyn Taylor** | 03/18/15 8:00am

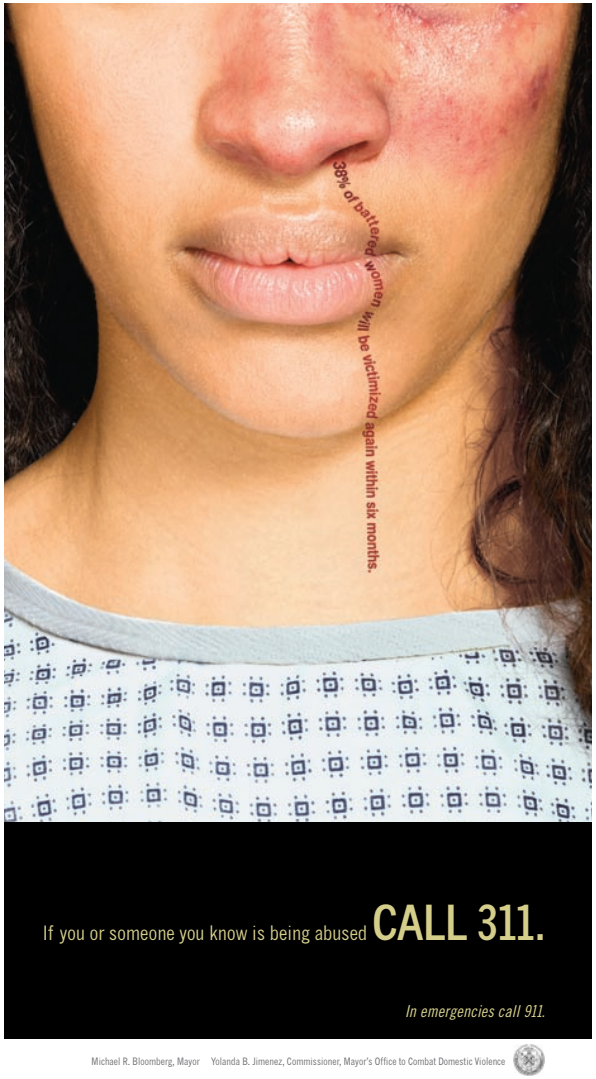
COMMENT

"Many thanks to Dropcam for literally saving our dogs and house from what could have been a horrible fire had we not seen it happening live and been able to get back in time!"

Nick Dinsmoor

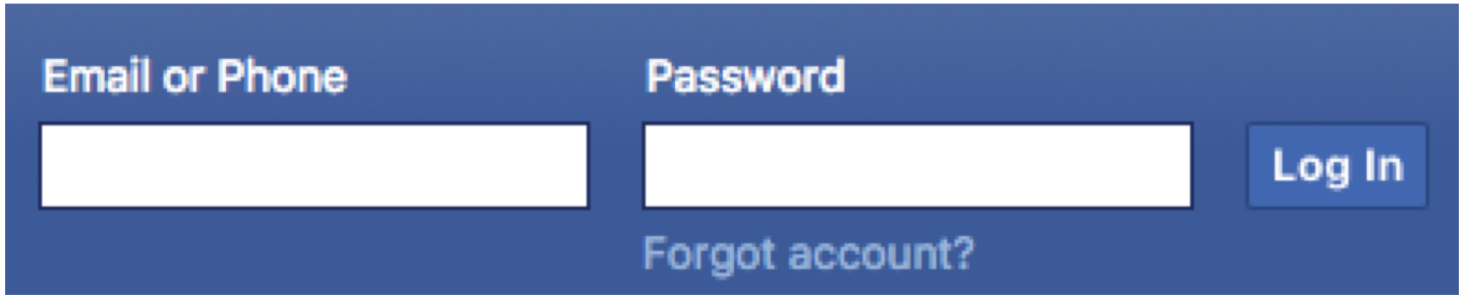
Technology to Enhance Lone Worker Protection

Each year, more than 23 million U.S. citizens work alone and in high-risk environments. Every day these "lone workers" suffer serious injury and death from workplace accidents, falls, assaults, and robberies. These incidents cost companies billions each year in lost productivity, lawsuits, insurance premium increases, and medical payments.



"Disconnecting often makes it worse. Clients are much more at risk when they actually separate from their abusers because he suddenly no longer has any control over that victim. So often the only thing left is through the phone[.] ... If you change your number, now he's most likely going to go crazy. So that's when he's going to start stalking you any way he can."

(social worker)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Password
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Forgot account?

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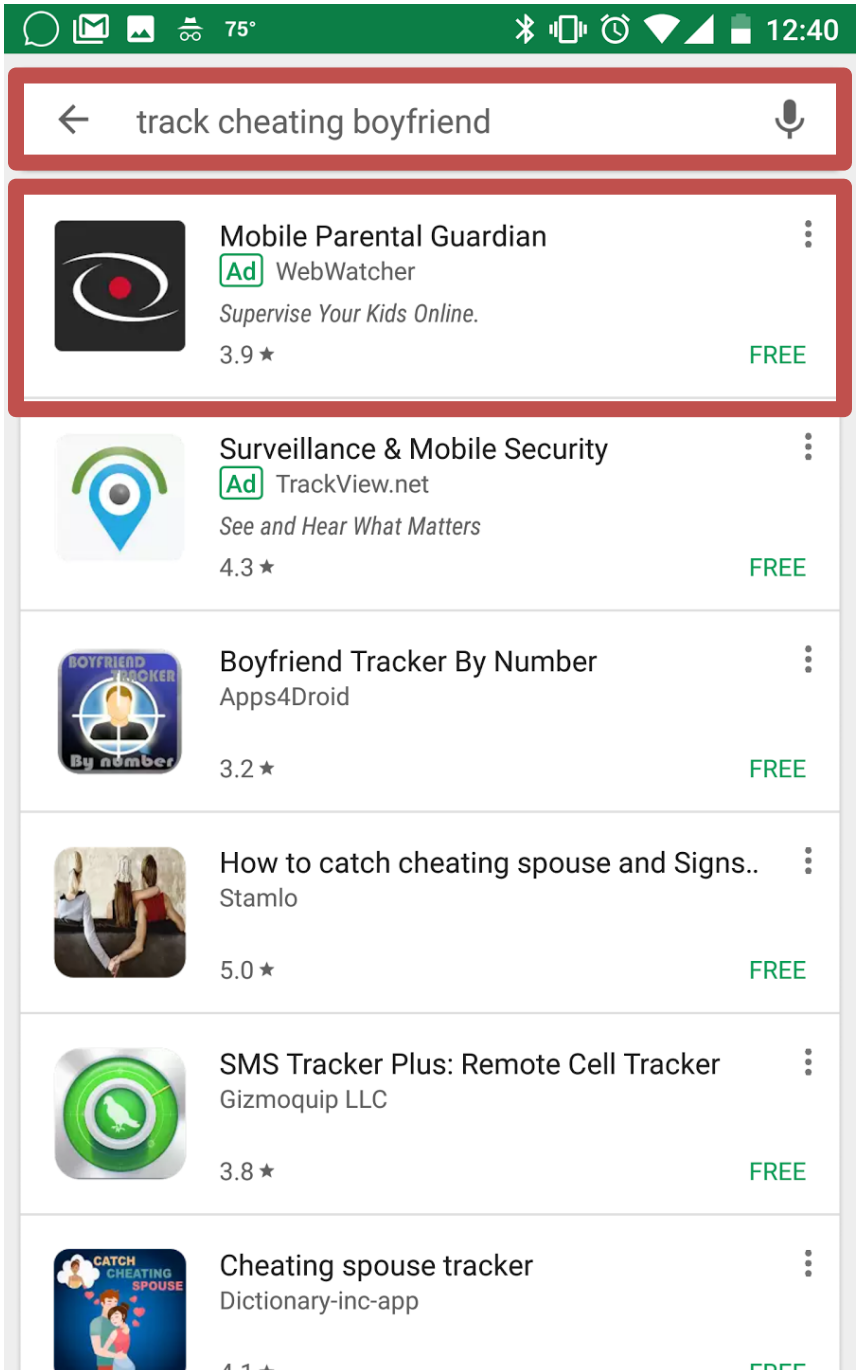
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Ad TrackView.net
See and Hear What Matters
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How to catch cheating spouse and Signs..
Stamlo
5.0 ★
FREE
SMS Tracker Plus: Remote Cell Tracker
Gizmoquip LLC
3.8 ★
FREE
Cheating spouse tracker
Dictionary-inc-app

The Atlantic

Rape Is Not a Data Problem

The tech sector has tackled sexual violence like it tackles laundry delivery, and entirely missed the point.

Image of woman via Dean Drobot/Shutterstock

TEXT SIZE

KAREN LEVY | OCT 30, 2014 | TECHNOLOGY

STAT

POLICY & ETHICS

The Golden State Killer Case Was Cracked with a Genealogy Web Site

Law enforcement's use of an open-source DNA ancestry database raises questions about genetic privacy

By Rebecca Robbins, STAT on April 28, 2018

Credit: Andrew Brookes Getty Images

Marginalization

The relationship between privacy and socioeconomic inequality

Digital inclusion and data profiling

by Seeta Peña Gangadharan

Want to Predict the Future of Surveillance? Ask Poor Communities.

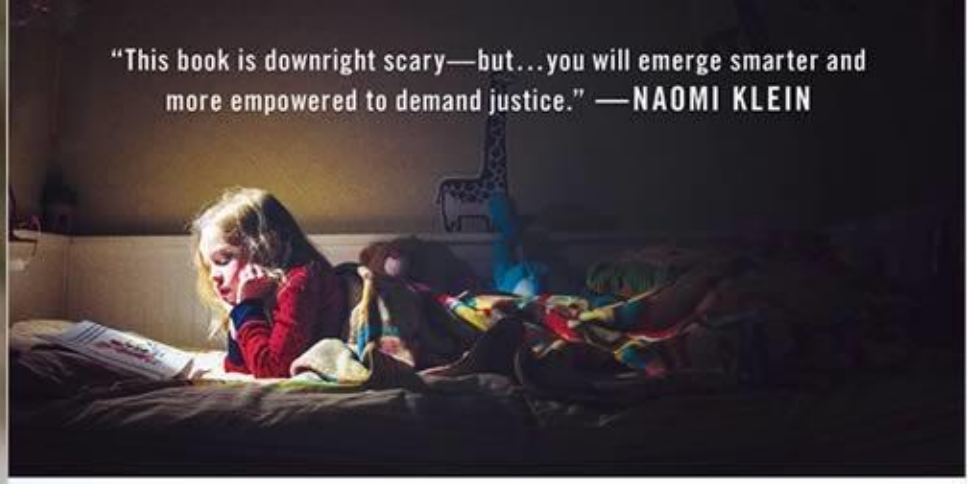
VIRGINIA EUBANKS JANUARY 15, 2014

Civil Rights Principles for the Era of Big Data

Technological progress should bring greater safety, economic opportunity, and convenience to everyone. And the collection of new types of data is essential for documenting persistent inequality and discrimination. At the same time, as new technologies allow companies and government to gain greater insight into our lives, it is vitally important that these technologies be designed and used in ways that respect the values of equal opportunity and equal justice. We aim to:

The Class Differential in Privacy Law

Michele Estrin Gilman†



AUTOMATING INEQUALITY

HOW HIGH-TECH TOOLS PROFILE, POLICE, AND PUNISH THE POOR

VIRGINIA EUBANKS

MEMBER FEATURE STORY

Data Violence and How Bad Engineering Choices Can Damage Society

Cultural harms can go well beyond search results — which can be bad news for vulnerable communities

Anna Lauren Hoffmann Follow
Apr 30 · ★ 12 min read

The downside of seamlessness

A Virtual Repo Man

"I have disabled a car while I was shopping at Walmart," said Lionel M. Vead Jr., the head of collections at First Castle Credit Union in Covington, La., who said that starter interrupt devices and GPS tracking technology had made his job easier. Cheryl Gerber for The New York Times

Data ethics: how???

Volkswagen Emissions Fraud Impacted 11 Million Cars, Could Cost $7 Billion To Fix

By Jeremy Stahl

I want my money back, Volkswagen.

Photo by PETER PARKS/AFP/Getty Images

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2018 ACM Code of Ethics and Professional Conduct: Draft 3

Draft 3 was developed by The Code 2018 Task Force. (It is based on the 2018 ACM Code of Ethics and Professional Conduct: Draft 2).

1. GENERAL MORAL PRINCIPLES.

A computing professional should...

1.1 Contribute to society and to human well-being, acknowledging that all people are stakeholders in computing.

This principle, concerning the quality of life of all people, affirms an obligation of computing professionals to use their skills for the benefit of society, its members, and the environment surrounding them. This obligation includes promoting fundamental human rights and protecting each individual's right to autonomy in day-to-day decisions. An essential aim of computing professionals is to minimize negative consequences of computing, including threats to health, safety, personal security, and privacy.

Computing professionals should consider whether the results of their efforts respect diversity, will be used in socially responsible ways, will meet social needs, and will be broadly accessible. They are encouraged to actively contribute to society by engaging in pro bono or volunteer work. When the interests of multiple groups conflict, the needs of the least advantaged should be given increased attention and priority.

ADMINISTRATIVE LAW, CYBERLAW / INTERNET

Facebook, Cambridge Analytica, and the Regulator's Dilemma: Clueless or Venal?

APRIL 4, 2018

by David C. Vladeck

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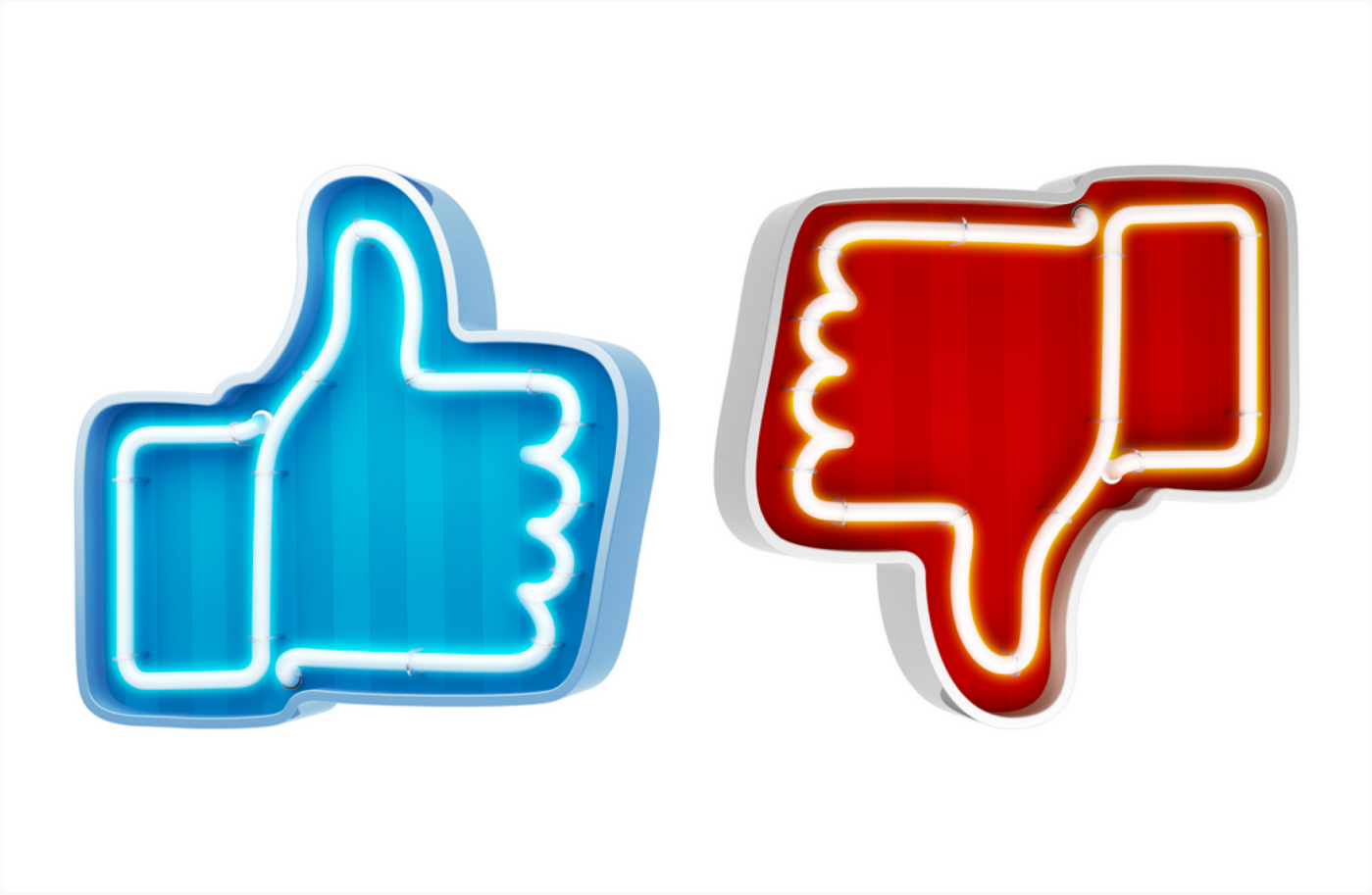

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Researching the social implications of artificial intelligence now to ensure a more equitable future
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Algorithmic Impact Assessments: Toward Accountable Automation in Public Agencies

An automated decision system from The Twilight Zone's "Nick of Time" (1960)