## Investigative Journalism In the Digital Age

Security, Privacy and the Media

Jennifer Valentino-DeVries Reporter, The New York Times SOUPS 2019

#### **Halcyon Days of Tech News**

FarmVille Creators Go Hunting for Treasure

#### Twitter Passes 10 Billion Tweets

#### Spring Awakening

How an Egyptian Revolution Began on Facebook



### From 'KnowPrivacy' ...



knowprivacy.org

#### THE WALL STREET JOURNAL.

#### The Web's New Gold Mine: Your Secrets

A Journal investigation finds that one of the fastest-growing businesses on the Internet is the business of spying on consumers. First in a series.

#### By Julia Angwin

July 30, 2010

Hidden inside Ashley Hayes-Beaty's computer, a tiny file helps gather personal details about her, all to be put up for sale for a tenth of a penny.

The file consists of a single code— 4c812db292272995e5416a323e79bd37—that secretly identifies her as a 26-year-old female in Nashville, Tenn.

#### Google's iPhone Tracking

Web Giant, Others Bypassed Apple Browser Settings for Guarding Privacy

By Julia Angwin And Jennifer Valentino-DeVries
February 17, 2012

Google Inc. and other advertising companies have been bypassing the privacy settings of millions of people using Apple Inc. AAPL -0.82% ▼ 's Web browser on their iPhones and computers—tracking the Webbrowsing habits of people who intended for that kind of monitoring to be blocked.

#### 'Stingray' Phone Tracker Fuels Constitutional Clash

By Jennifer Valentino-DeVries

September 22, 2011

For more than a year, federal authorities pursued a man they called simply "the Hacker." Only after using a little known cellphone-tracking device—a stingray—were they able to zero in on a California home and make the arrest.



#### Websites Vary Prices, Deals Based on Users' Information

By Jennifer Valentino-DeVries, Jeremy Singer-Vine and Ashkan Soltani December 24, 2012

It was the same Swingline stapler, on the same Staples.com website. But for Kim Wamble, the price was \$15.79, while the price on Trude Frizzell's screen, just a few miles away, was \$14.29.

A key difference: where Staples seemed to think they were located.

A Wall Street Journal investigation found that the Staples Inc. website displays different prices to people after estimating their locations. More than that, Staples appeared to

## **An Expanding Field**

#### **Machine Bias**

There's software used across the country to predict future criminals. And it's biased against blacks.

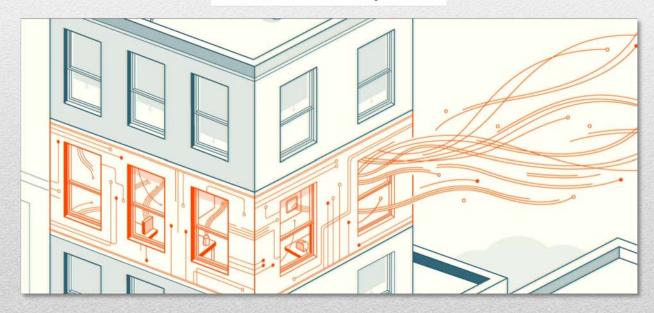
by Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, ProPublica
May 23, 2016

N A SPRING AFTERNOON IN 2014, Brisha Borden was running late to pick up her god-sister from school when she spotted an unlocked kid's blue Huffy bicycle and a silver Razor scooter. Borden and a friend grabbed the bike and scooter and tried to ride them down the street in the Fort Lauderdale suburb of Coral Springs.

## **An Expanding Field**

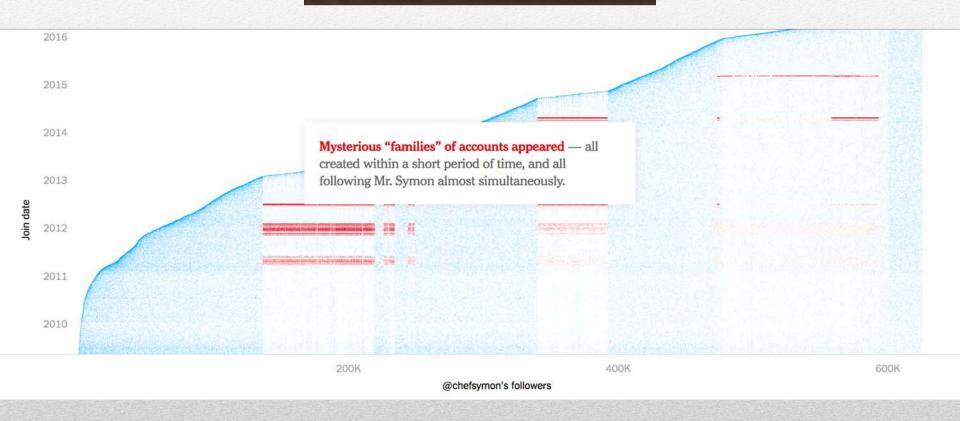
#### The House That Spied on Me

Kashmir Hill and Surya Mattu



## **An Expanding Field**

The Follower Factory



#### The AppCensus Project



- Dynamic Analysis of free Android Apps
- Results for tens of thousands of apps
- More than half of nearly 6,000 children's apps shared data in potential violation of COPPA
- Currently at search.appcensus.io

#### **NYT App Articles**

#### How Game Apps That Captivate Kids Have Been Collecting Their Data

- Deep dive on company that was a repeat offender
- Looked at Google's handling of the situation
- Found children and parents whose data had been shared
- Also analyzed 10 iOS, 10 Android apps manually

### **NYT App Articles**



Your Apps Know Where You Were Last Night, and They're Not Keeping It Secret

#### **NYT App Articles**

# Local news, teams & players We'll use your location to recommend local teams and players that are relevant to you. ALLOW LOCATION MAYBE LATER

## Allow "The Weather" to access your location? You'll get personalized local weather data, alerts and forecasts. Only While Using the App Always Allow Don't Allow

- Found 75+ location data companies
- Manually tested 10 iOS, 10 Android apps
- Obtained location dataset
- Identified people in dataset (with permission)

### Why Combine Forces?

- Reaching Users and the Public
- Reaching Policymakers
- Overcoming Technical Barriers
- Providing Proof

#### Why Do We Need Proof?

Because people lie!

#### What Constitutes Proof?

- Multiple Sources
- Documentation
- Observational Data

#### **Observational Data In Action**

But it is easy to share information without realizing it. Of the 17 apps that The Times saw sending precise location data, just three on iOS and one on Android told users in a prompt during the permission process that the information could be used for advertising. Only one app, GasBuddy, which identifies nearby gas stations, indicated that data could also be shared to "analyze industry trends."

Dataium also scrambles the history-sniffing data with a cipher known as ROT13. This cipher replaces each letter in the alphabet with the letter 13 places later in the alphabet. It is not considered to be "secure."

## Academia and Journalism: Some Differences

- Academic Work
  - More Space, More Nuance
  - Greater Interest in Process
- Journalistic Work
  - Concise
  - A Search for Real-World Examples
  - Extensive Comment, Confirmation

#### What Journalists Look For

- Examples of Harm to Real People
- Widespread Effects
- Opportunities for Accountability

#### **Ways To Do It**

- Traditional News Report on Academic Paper
- Academic Report and Journalistic Extension
- Full Integration

### Things to Understand

- Investigative journalism can take months.
- Neither technical research nor reporting is magic.
- Journalism is still driven by space needs.
- The general audience is not the tech audience.
- Ask for a fact check, but know what that is.

## **Questions?**

https://www.nytimes.com/tips

https://jennifervalentinodevries.com/contact/