

# **Data and Society**

## **Data and Privacy 1 – Lecture 4**



2/4/21

# Today (2/4/21)

- *Personal Essay #1* **due by February 7 at midnight**, Information in L2
- Lecture / Discussion – Introduction to Privacy
- Student Presentations
- Heads up: the next assignment (given February 11) will be a Briefing. You will do this in **teams of 2**.
  - If you would like to pick your own partner, send an email (ccing both partners) to FB by 2/9 letting me know who is on your team
  - If you don't pick your own partner (which is fine ...), FB will assign you one.


# Reading for February 8

- **“Differential Privacy for Census Data Explained”**, National Council of State Legislatures, <https://www.ncsl.org/research/redistricting/differential-privacy-for-census-data-explained.aspx>

**OUR AMERICAN STATES**  The NCSL Podcast 

## Differential Privacy for Census Data Explained

9/9/2020



### Introduction

The U.S. Census Bureau has had a longstanding requirement to ensure that the data from individuals and individual households remains confidential. For the 2020 census, it plans to use a new approach for doing so: “differential privacy.”

This webpage provides:

- Background on differential privacy for policy generalists.
- The current status of decision-making for implementing differential privacy.
- Questions data users and redistricters may want to consider.
- How data users can communicate with the Census Bureau on this topic.
- Additional resources.

Date	Topic	Speaker	Date	Topic	Speaker
1-25	Introduction	Fran	1-28	The Data-driven World	Fran
2-1	Data and COVID-19	Fran	2-4	Data and Privacy -- Intro	Fran
2-8	Data and Privacy – Differential Privacy	Fran	2-11	Data and Privacy – Anonymity	Fran
2-15	NO CLASS / PRESIDENT’S DAY		2-18	Data and Privacy – Law	Ben Wizner
2-22	Digital rights in the EU and China	Fran	2-25	Data and Discrimination 1	Fran
3-1	Data and Discrimination 2	Fran	3-4	Data and Elections 1	Fran
3-8	Data and Elections 2	Fran	3-11	NO CLASS / WRITING DAY	
3-15	Data and Astronomy	Alyssa Goodman	3-18	Data Science	Fran
3-22	Digital Humanities	Brett Bobley	3-25	Data Stewardship and Preservation	Fran
3-29	Data and the IoT	Fran	4-1	Data and Smart Farms	Rich Wolski
4-5	Data and Self-Driving Cars	Fran	4-8	Data and Ethics 1	Fran
4-12	Data and Ethics 2	Fran	4-15	Cybersecurity	Fran
4-19	Data and Dating	Fran	4-22	Data and Social Media	Fran
4-26	Tech in the News	Fran	4-29	Wrap-up / Discussion	Fran
5-3	NO CLASS				

# Lecture / Discussion

- What is privacy and why does it matter?

# Julie Cohen Paper

DRAFT 11/20/2012

126 HARV. L. REV. (forthcoming 2013)

WHAT PRIVACY IS FOR

JULIE E. COHEN\*

## I. HOW PRIVACY GOT A BAD NAME FOR ITSELF

Privacy has an image problem. Over and over again, regardless of the forum in which it is debated, it is cast as old-fashioned at best and downright harmful at worst—anti-progressive, overly costly, and inimical to the welfare of the body politic.<sup>1</sup> Privacy advocates resist this framing, but seem unable either to displace it or to articulate a comparably urgent description of privacy harms. No single meme or formulation of privacy's purpose has emerged around which privacy advocacy could coalesce.<sup>2</sup> Pleas to “balance” the harms of privacy invasion against the asserted gains lack visceral force.

The consequences of privacy's bad reputation are predictable: When privacy and its purportedly outdated values must be balanced against the cutting-edge imperatives of national security, efficiency, and entrepreneurship, privacy comes up the loser.<sup>3</sup> The list of privacy's counterweights is long and growing. The recent additions of social media, mobile platforms, cloud computing and artificial intelligence-driven data mining now threaten to tip the scales entirely, placing privacy in permanent opposition to the progress of knowledge.

---

\* Professor, Georgetown Law Center. Thanks to Michael Birnhack, Deven Desai, Laura Donohue, Andrew Glikson, James Grimmelmann, Frank Pasquale, Daniel Solove, participants in the *Harvard Law Review*

# Why does privacy matter?

- **Privacy:** *The state of being free from being observed or disturbed by other people; the state of being free from public attention.*
- Privacy provides you a measure of control over things pertaining to you.
- Privacy provides a limit on others' power over you.
- Privacy enables you to manage your reputation and choices

# Key idea: Privacy is fundamental

- Privacy provides a means of **boundary management** through which the capacity of self determination develops
- Cohen: Privacy critical for **democratic citizenry** and **unfettered innovation**



# Terms used in the paper

- **Liberal self [Cohen]:** (liberal → liberty)
  - “In its ideal form, the liberal self possesses both **abstract liberty rights and the capacity for rational deliberation and choice**, and is capable of exercising its capacities in ways **uninfluenced by cultural context.**”
- **Liberal democracy [Wikipedia]:** (liberal → “western”-style, representative)
  - “**Liberal democracy**, also referred to as **Western democracy**, is a political ideology and a form of government in which representative democracy operates under the principles of liberalism. It is characterized by **elections between multiple distinct political parties, a separation of powers into different branches of government, the rule of law in everyday life as part of an open society, a market economy with private property, and the equal protection of human rights, civil rights, civil liberties and political freedoms for all people.** ... After a period of sustained expansion throughout the 20th century, liberal democracy became the predominant political system in the world.”
  - **Constitutional forms of liberal democracies:**
    - Constitutional monarchy: Australia, Belgium, Canada, Denmark, Japan, Netherlands, Norway, Spain, UK
    - Republic: France, Germany, South Korea, Poland, India, Italy, Ireland, Mexico, U.S.
    - Parliamentary System: Australia, Canada, Germany, India, Israel, Ireland, Italy. U.K.
    - Presidential System: Indonesia, U.S.
    - Semi-presidential system: France, Poland, Russia, Romania

# Cohen: We live in a modulated democracy

- **Modulated democracy:** “Citizens who are subject to pervasively distributed surveillance and modulation by powerful commercial and political interests”
  - “[The purpose of modulation] is to produce **tractable, predictable citizen-consumers** whose preferred modes of self-determination play out along **predictable and profit-generating trajectories.**”
  - “Citizens within modulated democracies ... increasingly will **lack the capacity to form and pursue meaningful agendas for human flourishing**”

# Modulation and Information Technologies

- **Tools of modulation:** Networked technologies mediate the world around us and shape the form of citizenship practices – voting, debate, acquisition of information, protest, etc.
  - “the capacity for democratic self-government is defined in part by what those technologies and other widely used technologies allow, and by exactly how they allow it”
- **Modulation facilitators**
  - Surveillance and data collection
  - Nudging
  - Filter bubbles and echo chambers
- **Data collection and sharing may be obscured:**
  - Surveillance technologies pervasive and not transparent
  - Prevalent use of black box platforms for access and participation
  - “Seamless” design of products, services, interfaces obscure when information being shared

## Double-edged sword: Benefits in a surveillance society

- Increased personalization and services; enhanced products
- Price discounts
- More convenient access
- Heightened social status

# Cohen Thesis 1: Privacy is necessary for democratic self-government

- **Important for citizenship:**

- “Conditions of diminished privacy ... impair both the capacity and scope for the practice of citizenship.”
- “freedom from surveillance, whether public or private, is foundational to the practice of informed and reflective citizenship”
- **Public sector must understand the role of modulation:** “the capacity for democratic self-government is defined in part by what those technologies and other widely used technologies allow, and by exactly how they allow it”

- **Public sector must take the lead on protections**

- “**New privacy governance** ... entails reconfiguration of the public/private relationship in regulation, and often, the devolution of regulatory authority to private entities or public-private partnerships.”
- New privacy governance “rooted in a regulatory ideology that “systematically **downplays the need to hold market actors accountable** for harms to the public interest.”

# Cohen Thesis 2: Privacy is necessary for innovation

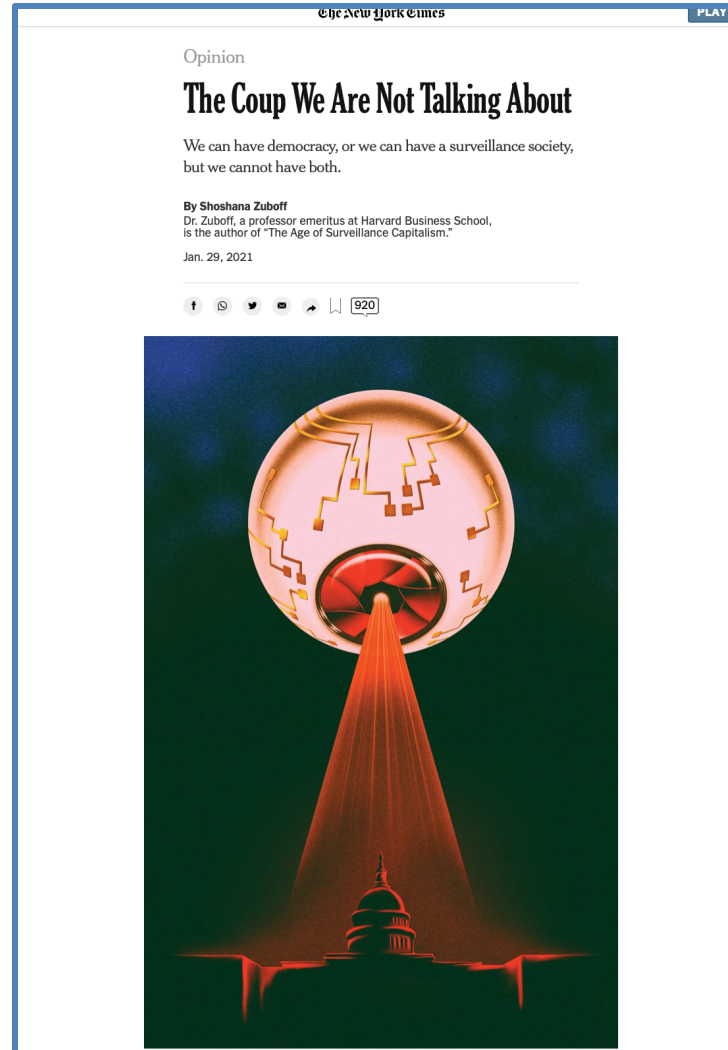
- “privacy ... shelters the processes of play and experimentation from which innovation emerges”
- “privacy is important both because it promotes innovative practice and because it promotes the kinds of innovation that matter most.” (innovation focused on human flourishing vs. consumption-driven needs)
- **You are more innovative when you are not being watched**
  - “Innovative practice is threatened most directly when circumstances impose intellectual regimentation, prescribing orthodoxies and restricting the freedom to tinker.”
  - “[Innovation] thrives most fully when circumstances yield serendipitous encounters with new resources and ideas and afford the intellectual and material breathing room to experiment with them. ... It is modulation, not privacy, that poses the greater threat to innovative practice.”
- “In debates about information privacy, innovation is increasingly positioned as a justification for withholding data protection. ... This simplistic view of the relationship between privacy and innovation is wrong. ...”

# What should the U.S. do?

## Cohen's recommendations for meaningful regulatory reform

- **Limit use of surveillance:** Don't allow personalization / surveillance / prediction to impair due process (fair treatment of individuals by law)
- **Promote personal boundary management:** Create more “semantic discontinuity” / explicit boundaries / **non-seamlessness** with respect to information flow and management
- **Promote more transparency:** Create more **operational transparency (and accountability)** with respect to information processing practices

# Shoshana Zuboff article



Fran Berman, Data and Society, CSCI 4370/6370

## Zuboff, NYTimes “The Coup we are not talking about”

<https://www.nytimes.com/2021/01/29/opinion/sunday/facebook-surveillance-society-technology.html>

- Zuboff: “We can have a democracy or we can have a surveillance society, but we can’t have both”
- Over the last 2 decades, “surveillance empires” have been engineering an “epistemic coup” marked by unprecedented concentrations of knowledge about us and unaccountable power that accrues to such knowledge.

(\*Epistemic = relating to knowledge or the degree of its validation)

- There’s been a two-decade drift towards private systems of surveillance and behavioral control outside the constraints of democratic governance.
- We need new charters of rights, legal frameworks and institutional forms that ensure a digital future that is compatible with the aspirations of a democratic society.



# The Epistemic Coup. We're in stage 3

- *Stage 1: Appropriation of epistemic/information rights.* Companies collect personal data as raw material for the extraction of behavioral data which becomes proprietary
- *Stage 2: State of epistemic inequality* – difference between what I can know and what can be known about me
- *Stage 3: Rise of epistemic chaos* – profit-driven algorithmic amplification, dissemination and microtargeting of corrupt information
- *Stage 4: Institutionalization of epistemic dominance* – overriding of democratic governance by private surveillance capital. “... the machines know and the systems decide, directed and sustained by the illegitimate authority and anti-democratic power of private surveillance capital.”

# Epistemic chaos fueled by drive to collect everything

- September 11 shifted focus in DC from privacy to total information awareness
- By 2013, CIA CTO said agency's mission was "to collect everything and hang onto it forever"
- Focus on collecting everything mirrored private sector, where companies increasingly used data as a competitive advantage and a foundation for products and services
- In this environment, all data is welcomed, and collection is indifferent to meaning, facts, usage and truth
  - Zuboff: Content moderation is a last resort, used to minimize user withdrawal or political sanctions, and ultimately to increase the collection of data

# Oversight needed to limit epistemic dominance and promote democracy

Zuboff suggests 3 principles to turn things around:

1. Legislative and legal initiatives need to be passed that structure the collection, use and sharing of information
  - Antitrust is necessary but not sufficient. Antitrust increases competition but more is needed to prevent data from being an unregulated competitive advantage
2. New rights must be developed that protect citizens from the appropriation of personal digital information.
  - People should be able to decide if and how their experience is shared, with whom and for what purpose
3. “Upstream solutions” needed as well as “downstream solutions”
  - Upstream → different rules and technical architectures wrt content extraction, surveillance, use of data; prohibitions of data brokering and economic incentives for collecting and using data
  - Downstream → accessibility, transparency and portability of collected data

# Presentations



# Upcoming Presentations

## • Presentations for February 8

- **“Changes to the census could make small towns disappear,”** New York Times, <https://www.nytimes.com/interactive/2020/02/06/opinion/census-algorithm-privacy.html>
- **“Can a set of equations keep U.S. census data private?,”** Science, <https://www.sciencemag.org/news/2019/01/can-set-equations-keep-us-census-data-private>

## • Presentations for February 11

- **“We’re banning facial recognition. We’re missing the point.”** New York Times, <https://www.nytimes.com/2020/01/20/opinion/facial-recognition-ban-privacy.html>
- **“This site published every face from Parler’s Capitol riot videos”**, Wired, <https://www.wired.com/story/faces-of-the-riot-capitol-insurrection-facial-recognition/>

# Need Volunteers

## February 18

- **“Analysis: California privacy reboot puts rights in spotlight”**, Bloomberg Law, <https://news.bloomberglaw.com/bloomberg-law-analysis/analysis-california-privacy-reboot-puts-rights-in-spotlight> (Angelina M.)
- **“To fix social media now, focus on privacy, not platforms”**, The Hill, <https://thehill.com/opinion/technology/535824-to-fix-social-media-now-focus-on-privacy-not-platforms> (Eric X.)

# Today's Presentations

- **'Are vaccine providers selling your health data? There's not much stopping them.'**, Vox,  
<https://www.vox.com/recode/22251118/vaccine-health-data-privacy-laws-philadelphia> (Hannah L.)
- **"WHO plans privacy, security rules for COVID-19 vaccine certificates,"** Wall Street Journal,  
<https://www.wsj.com/articles/who-plans-privacy-security-rules-for-covid-19-vaccine-certificates-11610706601> (Justin O.)