



PRIVACY

An overview





ABOUT ME





CAREER HISTORY

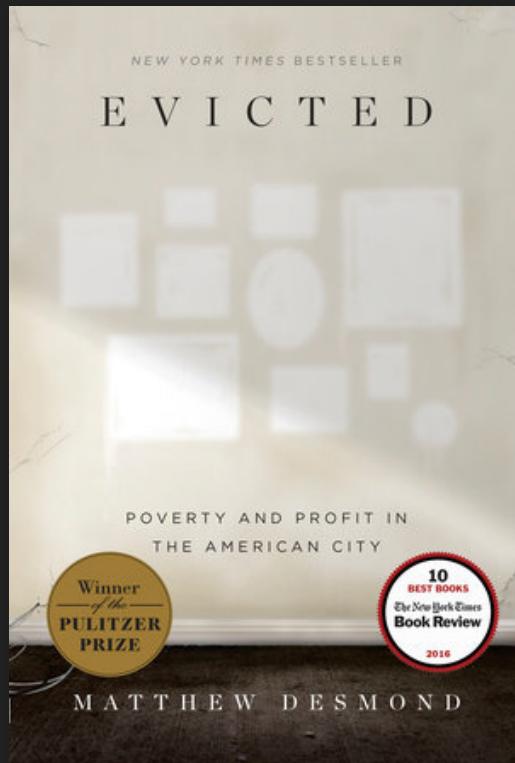
- 9 years active duty U.S. Air Force
- Non-Commissioned Officer in Charge of Information Security
- Cyberspace Operator
- Systems/Network Administrator
- Help Desk

Gov't Disclaimer

The views and opinions in the presentation are my own and do not reflect those of the United States Air Force, or the Department of Defense.



WHY IS THIS IMPORTANT TO ME?



This book provides a stark look at the difficulties and affects of poverty.



SOME CONCEPTS

The Wikipedia page on privacy describes it as

"the ability of an individual or group to seclude themselves, or information about themselves, and thereby express themselves selectively."¹

Many of the conceptions of privacy, and even many decisions made by modern courts, try to distill privacy to an essence



THE RIGHT TO BE LET ALONE

“Instantaneous photographs and newspaper enterprise have invaded the sacred precincts of private and domestic life...”²

- In 1890 Samuel Warren and Louis Brandeis penned a famous article "The Right to be Let Alone"
- This article is regarded as the foundation of privacy law in the United States.³
- One of their major concerns had to with the advent of the Eastman Kodak snap camera in 1884.



CONTROL OF PERSONAL INFORMATION

“Privacy is not simply an absence of information about us in the minds of others; rather it is the control we have over information about ourselves.”⁷

- This is what many people think of when they think of privacy.
- It's not always clear what control means.
- It's also too broad because it implies control of all information about us. Not all information about us is deemed private.
- It also implies ownership as in a property right, do we own the information inferred by Tinder?



SECRECY

“Privacy is an outcome of a person's wish to withhold from others certain knowledge as to his past and present experience and action and his intentions for the future.”⁸

- The understanding of privacy applied in many court rulings.
- Where the "I have nothing to hide so why should I care" idea comes from
- Huge part of US law with the idea that personal information is either concealed or not private.
The Supreme court views 4th amendment matters this way.
- This conception is also important to the third party doctrine.
- The binary view fails to account for the fact that some people share things with some but not others.



PERSONHOOD

“The right to privacy...protects the individual's interest in becoming, being, and remaining a person.”¹⁰

- This concept is the underpinning of supreme court decisions such as Griswold vs Connecticut, and Roe vs Wade.¹⁰
- These cases involved decisions relating to marriage, procreation, contraception, family relationships and child rearing.
- The word privacy does not exist in the constitution but the Court sums the constitutional right to privacy in Planned Parenthood vs Casey the subsequent ruling to Roe vs Wade.
- "These matters, involving the most intimate and personal choices a person may make in a lifetime, choices central to personal dignity and autonomy, are central to the liberty protected by the Fourteenth Amendment. At the heart of liberty is the right to define one's own concept of existance, of meaning, oth the universe, and of the mystery of human life. Beliefs about these matters could not define teh attributes of personhood were they formed under compulsion of the state."
- The conceptualization of the protection of privacy is basically, then, the state's non-interference in certain decisions that are essential to defining personhood.
- This is not perfect, consider intolerant identities and how the state would deal with conflicts.¹⁰



PROSSER'S FOUR TORTS

*“The right to recover damages for invasion of personal privacy is well established under U.S. common law.”*¹¹

1. Intrusion upon seclusion or solitude, or into private affairs;
2. Public disclosure of embarrassing private facts;
3. Publicity which places a person in a false light in the public eye; and

4. Appropriation of name or likeness.

- In 1960 eminent legal scholar William L. Prosser documented how privacy as a legal concept had come to constitute four distinct torts.
 - That is, a person whose privacy has been invaded could sue the invader for damages.
 - These torts still exist today, the quote was written to the EU by the US Dept of Commerce



SOLOVE'S TAXONOMY



- Professor Daniel Solove, of George Washington University, has done great work in creating a more tenable framework of privacy.
- In the book *Understanding Privacy* he lays out his ideas on privacy.



I. INFORMATION COLLECTION

1. Surveillance
2. Interrogation

II. INFORMATION PROCESSING

1. Identification
2. Secondary Use
3. Aggregation
4. Insecurity
5. Exclusion

III. INFORMATION DISSEMINATION

1. Breach of Confidentiality
2. Disclosure
3. Exposure
4. Increased Accessibility
5. Blackmail
6. Appropriation
7. Distortion

IV. INVASION

1. Intrusion
2. Decisional Interference



INFORMATION COLLECTION

1. **Surveillance** is the watching, listening to, or recording of an individual's activities.
 2. **Potential harm** Surveillance is a tool of social control. The mere possibility of surveillance has the potential to make people **feel extremely uncomfortable, cause people to alter their behavior, and lead to self-censorship and inhibition**. Too much social control can **adversely impact freedom, creativity, and self-development**.
 3. Alamo Heights automated license plate readers (ALPR)?
 4. It's not only overt surveillance but just the possibility of surveillance **Jeremy Bentham's 1791 Prison Design - Panopticon**
1. **Interrogation** includes various forms of questioning or probing for information. It resembles *intrusion* in its invasiveness and often involves the divulging of concealed information like disclosure. It is also related to *surveillance* in that it may involve the involuntary gathering of information.
2. **Potential harm** Harms associated with interrogation arise from the **degree of coerciveness** involved. People often feel some degree of compulsion because not answering might create the impression that they have something to hide. Interrogation forces people to be concerned about how they will explain themselves or how their refusal to answer will appear to others. **Historically, interrogation has been employed to impinge upon freedom of association and belief.**

7. This also is an asymmetry-of-knowledge problem. This hinders the development of appropriate norms about personal data use. 12



1. **Aggregation** is the gathering together of various pieces of information about a person.

2. less direct than surveillance.

3. **Potential harm** A piece of information here or there is not very telling; but when combined together, these bits and pieces of data begin to form a portrait of a person.

4. can cause dignitary harms because it unsettles expectations on how much information about themselves is revealed to others.

5. Also creates architectural problems by increasing the power that others have over the individual data subject.

6. Also when the data compilation used to judge the individual is incomplete or disconnected from the original context.

7. This is an asymmetry-of-knowledge problem. This hinders the development of appropriate norms about personal data use. 12

1. Identification

2. Secondary Use

3. Aggregation

4. Insecurity

5. Exclusion

8. In my opinion this is one of the more insidious threats to privacy

1. **Insecurity** involves carelessness in protecting stored information from leaks and improper access.

2. Glitches, security lapses, abuses, and illicit uses of personal information all fall into this category

3. **Potential harm** exposes people to potential future harm, most notably, identity theft.

4. The careless use of data by businesses and the government makes the crime of identity theft much easier.

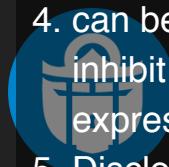
1. **Exclusion** is the failure to provide individuals with notice and input about their records.

2. **Potential harm** Exclusion reduces accountability on the part of government agencies and businesses that maintain records about individuals.

3. This lack of accountability often goes hand-in-hand with insecurity in record systems.

4. Additionally, the inability to participate in the maintenance and use of one's information can lead to feelings of powerlessness and frustration.

5. This can be troublesome where important decisions are based upon this personal information.

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4. can be a form of social control that prevents people from engaging in activities that further their own self-development, inhibit people from associating with others, and destroy anonymity, which is sometimes critical for the promotion of free expression.
 5. Disclosure can also threaten people's security by making them vulnerable to physical, emotional, financial, and reputational harms.
 6. Disclosure can also be harmful where it makes a person a prisoner of her recorded past

INFORMATION DISSEMINATION

1. **Exposure** is more narrow than exposure in that it involves our bodies and health.
2. **Potential harm** Harms from exposure come from the fact that we have social relationships and concomitant norms of dignity and decorum.
3. In other words it's how we feel about nudity and such that is the harm from exposure.
4. **Increased Accessibility** makes information that is already available to the public easier to access.
5. **Potential harm** Increased Accessibility enhances the risk of the harms of disclosure.
6. The risks of harm by secondary use are also implicated by increased access.
7. This issue is hotly debated when it comes to putting local courthouse and government records online
8. Most courts struggle to find harm because of the secrecy paradigm.¹³
9. **Blackmail** involves coercing someone by threatening to expose her personal secrets if she does not accede to the demands of the blackmailer.
10. Blackmail is criminalized in most industrialized societies.¹³
11. Richard McAdams Argues that blackmail is illegal because it inhibits the development of social norms by stifling the enforcement, discussion and critiques of norms.
12. **Appropriation** is the use of one's identity or personality for the purposes and goals of another.
13. Appropriation, like the harms in disclosure and distortion, involves the way someone wants to present herself to society.
14. **Distortion** is the manipulation of the way a person is perceived and judged by others.
15. Its harms are similar to disclosure in that they involve the possibility of embarrassment, humiliation, stigma, and reputational damage.
16. It differs in that the information revealed is false.



INVASION

1. Intrusion

2. Decisional Interference

- **Intrusion** concerns invasive acts that disturb one's tranquility or solitude. Intrusion can be caused by physical invasions as well as surveillance and interrogation.
- **Potential Harms** Solitude is built into society's structure to enhance the quality of life in the public sphere.
- it enables individuals to develop social relationships and pursue artistic, political, and religious ideas
- The harm caused by intrusion is the interruption of one's activities through the unwanted presence or activities of another person.
- **Decisional Interference** is governmental intrusion into people's decisions regarding certain matters of their personal lives.
- Decisional interference involves unwanted incursion by the government into an individual's decisions about her personal life.
- This can have a chilling effect on a person's decisions regarding her body, home, and family.



THE EFF'S THREAT MODEL

1. What do I want to protect?
2. Who do I want to protect it from?
3. How bad are the consequences if I fail?
4. How Likely is it that I will need to protect it?
5. How much trouble am I will to go through to prevent those consequences?



WHAT DO I WANT TO PROTECT?

- Contact Info
- Vital Stats

- **Contact Info** Surveillance, Identification, Secondary Use, Aggregation, Insecurity, Disclosure, Accessibility (Texas Prop Tax Info), Appropriation, Intrusion
- **Vital Info (Birth date/Place, Close Relatives/Friends, Marital Status)** Identification, Aggregation, Insecurity, Secondary Use, Exclusion, Accessibility, Blackmail, Distortion, Appropriation Decisional Interference
- **Location** Surveillance, Interrogation (association harms), All Info Processing, Breach of Confidentiality, Disclosure (Facebook Messenger incident, exif data), Blackmail, Intrusion, Distortion
- **Financial Information** Interrogation (association harms), Secondary Use, Aggregation, Insecurity, Exclusion, Breach of Confidentiality (Fair Credit Act as opt out vs opt in), Distortion
- **Medical Information** Interrogation (employers?), Insecurity, Exclusion (insurance issues), Breach of Confidentiality, Exposure, Blackmail, Intrusion, Distortion, Decisional Interference
- **Purchases(Retail vs Bank/Tax/Investment)** Surveillance, Secondary Use, Aggregation, Insecurity, Breach of Confidentiality, Disclosure, Exposure, Blackmail, Appropriation (advertising), Distortion, Decisional Interference
- **Communication History** Surveillance, Interrogation, Secondary Use, Aggregation, Insecurity, Breach of Confidentiality (Third party doctrine emails), Appropriation, Blackmail, Distortion
- **Browsing Behavior** Surveillance, Interrogation, Aggregation, Insecurity, Exclusion, Breach of Confidentiality, Blackmail, Distortion



WHO DO I WANT TO PROTECT IT FROM?

- Online Villains
- Advertisers
- Data Brokers
- Local Villains
- Big Money

• **Online Villains** Identity, Thieves, Hackers, Doxxers

• **Advertisers** Online/Offline, ISP's after March 2017 law.

Show some facebook stuff?

Definitely they eye chart

- Big Brother

- Big Data

We know a lot about the data broker industry because of a 2013 Senate Investigation

- Show the name charts?
- Others?

• **Local Villians** Ex's, Current/Future Employers, nasty neighbors, sex offenders, stalkers, other creepsters

• **Big Money** Banks, Insurers, Credit Card providers

• **Big Brother** There was a lot of surveillance in my list eh?

• **Big Data** I seperated it from advertisers because it is used for other reasons but still can cause privacy harms.



HOW BAD ARE THE CONSEQUENCES IF I FAIL?



HOW LIKELY IS IT THAT I WILL NEED TO
PROTECT IT?



HOW MUCH TROUBLE AM I WILL TO GO THROUGH TO PREVENT THOSE CONSEQUENCES?

Allan Westin recognizes three types of consumers in their privacy concerns¹⁵

- Privacy Fundamentalists (25%) place high value on privacy, refuse to give personal information
- Privacy Pragmatists (55%) his group weighs the value to them and society of various business or government programs calling for personal information, examines the relevance and social propriety of the information sought, looks to see whether fair information practices are being widely enough observed, and then decides whether they will agree or disagree with specific information activities -- with their trust in the particular industry or company involved a critical decisional factor.
- Privacy Unconcerned (20%) Don't know what all of the fuss is about. supports the benefits of most organizational programs over warnings about privacy abuse, has little problem with supplying their personal information to government authorities or businesses, and sees no need for creating another government bureaucracy to protect someone's privacy.



SOME DEFENSES (FOR PRAGMATISTS)

Don't give out any more information than you **MUST**.



DEFENSES AGAINST SURVEILLANCE

The EFF has a good publication with tutorials on Surveillance Self Defense.



DEFENSES AGAINST SECONDARY USE



DEFENSES AGAINST AGGREGATION

- The Princeton Web Census found in 2016 that Google, Facebook, and Twitter are the only third-party entities present on more than 10% of sites.
- They also found privacy blockers like uBlock were effective.
- Blocking third party cookies is also an effective way to block online tracking
- Using a variety of services so as to no allow any one service to have a good data.



DEFENSES AGAINST BREACH OF CONFIDENTIALITY

- Google had over 100,000 user data disclosure requests last year! About 60% of those produced information
- This is a political problem.
- The real defense here is to fix the laws governing online privacy.



OTHER RESOURCESS

- Spread Privacy.com and Duck Duck Go!
- Privacy Rights Clearing House
- State of Texas Privacy Policies
- The FTC
- Browser Security



CONCLUSION

This presentation can be found on github

https://github.com/xoxide/cyberdefdojo_privacy



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