

CS 4001: Computing, Society & Professionalism

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Week 7: Privacy and the
Government
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A Balancing Act

- Federal, state, and local governments in United States have had significant impact on privacy of individuals
- Government must balance competing desires of citizens
 - desire to be left alone
 - desire for safety and security

Solove's Taxonomy of Privacy

- **Information collection:** Activities that gather personal information
- **Information processing:** Activities that store, manipulate, and use personal information that has been collected
- **Information dissemination:** Activities that spread personal information
- **Invasion:** Activities that intrude upon a person's daily life, interrupt someone's solitude, or interfere with decision-making

Class Discussion: Relationship with definitions of privacy

- 1) **Information collection** – gathering personal information.
 - 2) **Information processing** – storing, manipulating, using personal info that has been collected
 - 3) **Information dissemination** – spreading personal information
 - 4) **Invasion** – intruding upon a person's daily life, interrupting someone's solitude, or interfering with decision-making
- a) Privacy is the right to be left alone (Warren & Brandeis).
 - b) Privacy is the state of being away from public attention (Gavison).
 - c) Privacy is control over who knows what about us (Rachels).
 - d) Privacy is the appropriate flow of personal information (Nissenbaum).
 - e) 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 (Fried).

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Privacy Post 9/11

- National security concerns increased significantly after 9/11 attacks

Privacy Post 9/11

- (2006 poll) 70% Americans supported “expanded camera surveillance on streets and in public places”
- 62% supported “law enforcement monitoring of Internet discussions in chat rooms and other forums”
- 61% supported “closer monitoring of banking and credit card transactions to trace funding sources”
- 52% supported “expanded governmental monitoring of cell phones and emails to intercept communications”



Information Collection by the Government (Direct)

- Purpose: accountability and fairness

Census Records

- Census required to ensure every state has fair representation
- Number of questions steadily rising
- Sometimes Census Bureau has broken confidentiality requirement
 - World War I: draft resisters
 - World War II: Japanese-Americans


Internal Revenue Service Records

- The 16th Amendment to the US Constitution gives the federal government the power to collect an income tax
- IRS collects more than \$2 trillion a year in income taxes
- Income tax forms contain a tremendous amount of personal information: income, assets, to whom you make charitable contributions, medical expenses, and more

FBI National Crime Information Center

2000


- **NCIC**
 - Collection of databases related to various crimes
 - Contains > 39 million records
- **Successes**
 - Helps police solve hundreds of thousands of cases every year
 - Helped FBI tie James Earl Ray to assassination of Dr. Martin Luther King, Jr.
 - Helped FBI apprehend Timothy McVeigh for bombing of federal building in Oklahoma City



Discussion Point: What are the downsides of maintaining the NCIC database?

Closed Circuit Television Cameras

- First use in Olean, New York in 1968
- Now more than 30 million cameras in US
- New York City's effort in lower Manhattan
 - \$201 million for 3,000 new cameras
 - License plate readers
 - Radiation detectors



Discussion Point: Are
surveillance cameras effective?
Mixed opinion: ACLU opposition; London
bombings in subway in 2005

Social Security Number

- Social Security cards first issued 1936
- Originally used only for Social Security purposes
- Use of SSN has gradually increased
- SSN is a poor identification number
 - Not unique
 - Rarely checked
 - No error-detecting capability



Class Activity 1 (Debating over a National ID card)



Challenges of government information collection

Surveillance Camera Images of Boston Marathon Bombing Suspects





Class Activity 2 (DNA Database)



Covert Government Surveillance

Wiretapping – J. Edgar Hoover



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First Director of FBI

Operation Shamrock

- Continuation of World War II interception of international telegrams
- National Security Agency (1952)
- Expanded to telephone calls
- Kennedy
 - Organized crime figures
 - Cuba-related individuals and businesses
- Johnson and Nixon
 - Vietnam war protesters
- Nixon
 - War on drugs

NSA Wiretapping Post 9/11

- President Bush signed presidential order
 - OK for NSA to intercept international phone calls & emails initiated by people inside US
 - No search warrant required
- Number of people monitored
 - About 500 people inside US
 - Another 5,000-7,000 people outside US
- Two al-Qaeda plots foiled
 - Plot to take down Brooklyn bridge
 - Plot to bomb British pubs and train stations



Information Processing/Mining by the Government

Syndromic Surveillance Systems

- Syndromic surveillance system: A data mining system that searches for patterns indicating the outbreak of an epidemic or bioterrorism
 - 911 calls
 - emergency room visits
 - school absenteeism
 - Internet searches
- Example: A system in New York City detected an outbreak of a virus in 2002

Sci-fi Movies

- Minority Report (2001 film)
- The Circle (2017 film)

Neural Network Learns to Identify Criminals by Their Faces

The effort aimed at identifying criminals from their mugshots raises serious ethical issues about how we should use artificial intelligence.

by Emerging Technology from the arXiv November 22, 2016



Soon after the invention of photography, a few criminologists began to notice patterns in mugshots they took of criminals. Offenders, they said, had particular facial features that allowed them to be identified as law breakers.

One of the most influential voices in this debate was Cesare Lombroso, an Italian criminologist, who believed that criminals were “throwbacks” more closely related to apes than law-abiding citizens. He was convinced he could identify them by ape-like features such as a sloping forehead, unusually sized ears and various asymmetries of the face and long arms. Indeed, he measured many subjects in an effort to prove his view although he did not analyze his data statistically.



KATHERINE BAILEY [BACKCHANNEL](#) 11.29.16 12:00 AM

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TWEET



COMMENT



EMAIL

PUT AWAY YOUR MACHINE LEARNING HAMMER, CRIMINALITY IS NOT A NAIL




Predictive Policing


- Criminals behave in a predictable way
 - Times of crimes fall into patterns
 - Some areas have higher incidence of crimes
- Predictive policing: use of data mining to deploy police officers to areas where crimes are more likely to occur
- Police in Santa Cruz and Los Angeles saw significant declines in property crime

Broken Windows Theory

- Broken windows theory, academic theory proposed by James Q. Wilson and George Kelling in 1982 that used broken windows as a metaphor for disorder within neighborhoods.
- Their theory links disorder and incivility within a community to subsequent occurrences of serious crime.
- Broken windows theory had an enormous impact on police policy throughout the 1990s and remained influential into the 21st century.
- Most notable application of the theory was in New York City under the direction of Police Commissioner William Bratton.



Class Activity 3a, 3b (Predictive Policing Technology)



Government Legislation
restricting information
dissemination

Family Education Rights and Privacy Act (FERPA)

- Rights given to
 - Students 18 years and older
 - Parents of younger students
- Rights include
 - Reviewing educational records
 - Requesting changes to erroneous records
 - Preventing release of records without permission

Health Insurance Portability and Accountability Act (HIPAA)

- Limits how doctors, hospitals, pharmacies, and insurance companies can use medical information
- Health care providers need signed authorization to release information
- Health care providers must provide patients with notice describing how they use medical information

Freedom of Information Act

- Federal law designed to ensure public has access to US government records
- Signed by President Johnson (1966)
- Applies only to executive branch
- Nine exemptions
 - Classified documents
 - Trade secrets or financial information
 - Documents related to law enforcement investigations