POLITECNICO DI MILANO





Computer Ethics

Information flow, privacy, and surveillance

Viola Schiaffonati

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Why care about privacy? (Johnson 2009)

- IT configured societies are often characterized as '**surveillance societies**'
  - What, if anything, the **value of privacy**?
  - If **privacy disappears**, what exactly will be **lost**?
  - How does surveillance affect **social arrangements**, **institutions**, and **practices**?
  - What sort of **beings** do we become when we live in **surveillance societies**?

What is privacy? (van der Hoven et al. 2016)

- **Right to be left alone** based on a principle of 'inviolate personality' (Warren & Brandeis 1890)
- **Constitutional** (or **decisional**) **privacy**
  - Freedom to make one's own decisions without interference by others in regard to matters seen as intimate and personal (e.g., to have an abortion)
- **Tort** (or **informational**) **privacy**
  - Interest of individuals in exercising control over access to information about themselves (e.g., information disclosed on social media)
- The privacy debate has **co-evolved** with the development of information technology

Information flow with information technologies

- All three characteristics we identified come into play in privacy and surveillance issues
  - **Reproducibility**: if it weren't for reproducibility, information would still be difficult to distribute and manipulate
  - **Identity conditions** of the Internet: they come into play because it is difficult (and often practically impossible for most) to operate online without being tracked in several ways
  - Information flows globally from **many-to-many**, **one-to-one**, and **many-to-one**

Features of current information flow

- Much more personal information is collected (**scale**)
  - Electronic records are easy to create, store, maintain, manipulate, search and share
- New kinds of personal information are created (**type**)
  - Transaction generated information (TGI) didn't exist before
- Personal information is distributed more widely (**distribution**)
  - Once information about an individual is recorded on a server, it can be bought and sold, given away, traded, or stolen
- This information endures for longer periods of time (**endurance**)
  - When information is stored electronically, there may be little incentive to get rid of it
- The effects of **erroneous personal information** are **magnified**
  - The erroneous information may spread so quickly that is impossible for an individual to track down all the places it exists

No need to worry

- Those who think we need not worry about intensive tracking and monitoring of individual behavior can make the following arguments

1) **Privacy** only **protects** people **who have something to hide**: if you aren't doing anything wrong, you should have no need to worry about being watched
2) **Privacy** is **overrated**: those who live in IT-configured societies have in fact let privacy go and this is evidence that privacy is neither valued nor valuable
3) The information that organizations gather about individuals has enormous **benefits** to the **organizations** that gather it as well as to the **individuals** the information is about

Counterarguments (1)

- Privacy only protects people who have something to hide
  - **Erroneous information** can **dramatically affect** your life even if you have done nothing wrong
  - It may result in **you being denied a benefit** you are entitle to or subjected to a treatment you don't deserve
    - E.g. issues related to the accuracy of Police databases
  - Information that is **inappropriate** or **unfair** for an organization to use
  - Information can be **used inappropriately** to make decisions for which the information is **irrelevant** or even **illegal** to use
    - E.g. information posted on a social networking site and used by a company to make a hiring decision

Counterarguments (2)

- Privacy is overrated
  - The fact that individuals readily give out personal information doesn't mean necessarily that they don't value privacy, or that privacy isn't valuable
  - They may be **naïve** or **uniformed**, or may be just **wrong**
  - The choices available to individuals when they opt to give out personal information may be constructed in such a way that individuals may **unknowingly choosing against their own interests**
    - E.g. often we are given only the choice to take the benefit in exchange for disclosure of information or not to get the benefit at all
  - What seems to be a choice about a **local sharing** of information may actually be a choice for **global sharing**
    - E.g. cumulative effects of giving up privacy in this or that sector

Counterarguments (3)

- Personal information-gathering practices can be beneficial to information-gathering organizations and to their customers and subjects
  - Do organizations use the information **to serve** their **customers** or **to shape** them?
  - Do these organizations use **appropriate information** when they make **decisions about individuals**?
  - To analyze in an **utilitarian framework**: both **positive** and **negative consequences**, and for **all** of those who are affected

Privacy as an individual good

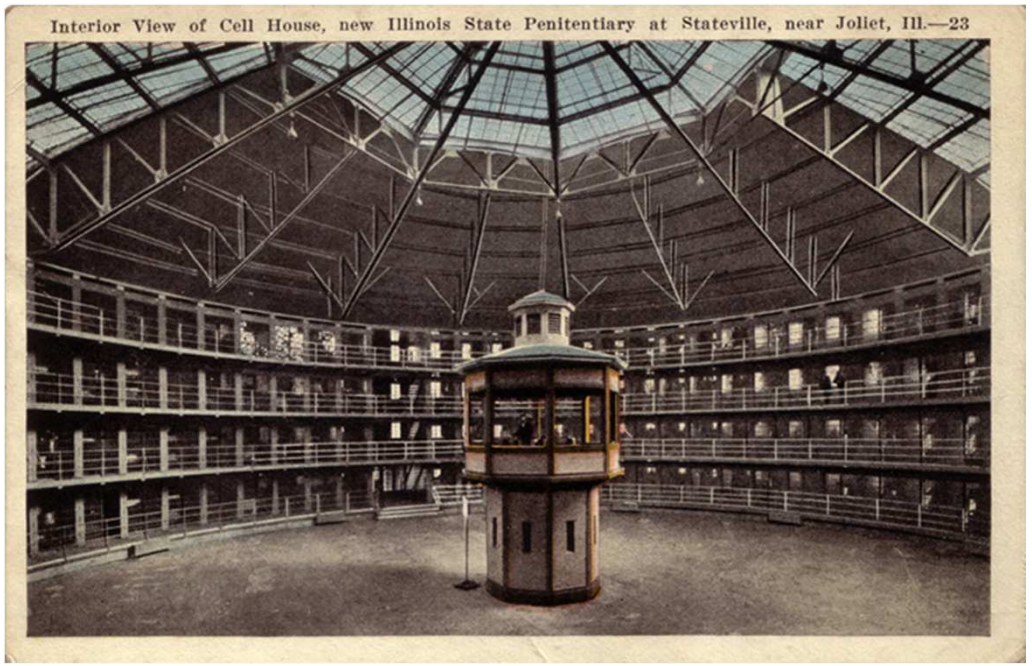
- Privacy is an important value that is **intertwined** with **autonomy**, **equality**, and **democracy**
- Its importance ought to be recognized in IT-based practices
- Privacy as an **instrumental good** for certain kinds of human relationships
  - **Friendship**, **intimacy**, and **trust** could not develop in societies or context in which individuals are under constant surveillance (Fried 1968)
  - Privacy is necessary to maintain a **diversity of relationships**: the kind of relationships we have with others is a function of the information we have about each other; if everyone had the same information about you, you would not have a diversity of relationship (Rachels 1975)

Privacy as a social good

- When **individual privacy** is balanced against social goods, such as **security** and **government efficiency**, personal privacy loses (e.g. U.S. Patriot Act, Apple vs. FBI)
- Instead of framing privacy as an individual good, we should understand it as a **social good** (Regan 1995)
- Reframing in terms of the **utilitarian calculus**
  - When social good is balanced against the good of some individuals, social good generally wins
  - When **two social good** are pitted against each other, both must be **taken into account**

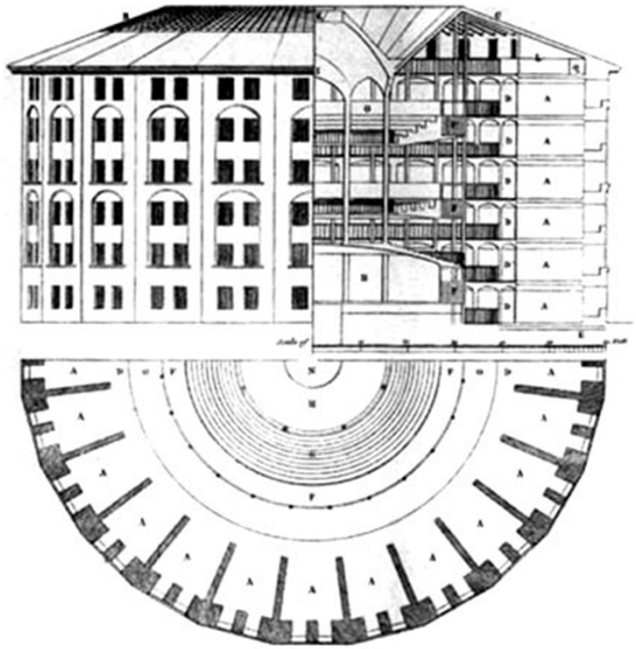
Autonomy and the panoptic gaze

- A number of information theorists have observed that living in a **IT-configured society** is similar to living in a '**panopticon**', a structure designed by Jeremy Bentham (1787) to serve as a prison
- **Autonomy** not just as an individual good but rather as **essential** to democracy



Panopticon

- Panopticon means ‘all-seeing’
  - The chambers in which **prisoners** lived would be arranged in a circle and the side of each cell facing the inside of the circle would be made of **glass**
  - The **guard tower** would be placed in the **middle of the circle**, so a **guard** standing in the guard tower would have **view of every chamber**, but **prisoners could not see the guard in the tower**
  - As long as **prisoners** believe they are probably being watched (the guard doesn’t need to be there at every moment) they will **adjust their behavior** and **adhere to the norms** they believe the guards want to enforce



Privacy as essential to democracy

- In IT-configured societies, if much of what we do is **recorded** and **likely to have future consequences** in the way we are treated, then we have to consider our watchers and their norms whenever we act
- Two different concerns arise
  - **Effect** on our **freedom** (autonomy)
  - Who are our watchers and how have they selected the norms of behavior by which they evaluate us? **Effects** on **democracy**
- The idea of **democracy** is that **citizens** have the **freedom** to exercise their **autonomy**
  - Democracy requires citizens capable of **critical thinking**
  - Privacy is not only an individual good, but a **social good** that it should not be eliminated when it comes into tension with other social goods

Data mining and social sorting

- The problem is not just that we are being tracked and monitored
- The norms by which we are measured, evaluated, and treated are often **not subject** to **public discussion** and **negotiation**
  - They are **invisible** to the individuals being watched, evaluated, and treated

Strategies (1)

- **Fair information practices**
  - Ex.: Code of Fair Information Practices" (1973)
    - There must be **no personal data record-keeping system** whose existence is **secret**
    - There must be a way for an individual to find out what information about him or her **is in a record** and how it is **used**
    - There must be a way for an individual to prevent information about him or her that was obtained for one purpose from being used or made available **for other purposes without his or her consent**
    - There must be a way for an individual **to correct or amend a record** of identifiable information about him or her
    - Any organization creating, maintaining, using, or disseminating records of identifiable personal data must assure the **reliability of the data** for their intended use

Strategies (2)

- **Adoption of transparency policies**
  - One of the reasons that consumers and clients are so complaint when it comes to their privacy is that they are **unware of information practices**
- **Opt-in versus Opt-out**
  - Given how little information consumers, clients, and citizens have about information practices, the opt-out strategy seems unfair if not deceptive
  - If organizations cannot use personal information about us unless they get our permission, then **they have to inform us** of their practices and **convince us that we want to opt-in**

Strategies (3)

- **Design and computer professionals**
  - Role that IT professionals can play in **protecting privacy**
  - The **architecture of IT systems** can make a **big difference** in what kind of data is collected and how it flows from place to place
  - It professionals are often in the best position to evaluate the **security** and **reliability** of databases of personal information and the potential **uses** and **abuses**

ACM Code of conduct

- **ACM code of conduct** about the principle of the **individual's privacy**
  - Minimize the data collected
  - Limit authorized access to the data
  - Provide proper security for the data
  - Determine the required retention period of the data
  - Ensure proper disposal of the data

Summary

- It is not true that we don’t need to worry
- **Analysis** and **examples** are provided
- **Privacy** is not only an **individual good** but also a **social good**
- Privacy is related to **autonomy**
- Autonomy is essential for **democracy**
- There exist different **strategies** to cope with these issues

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