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Ethics of Machine Learning and Data Science - Part I

Week 2: Privacy and Autonomy 101

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The right to privacy

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What is privacy?

- Your social security / national insurance number
- Your sexual orientation
- Your medical history
- Who you voted for in the last election

You can *choose* to disclose any of the above information, but it must not be disclosed without your consent. *Consent* can be implicit (e.g., walking in a public space) or explicit.

Disclose to whom, for how long, and for what purpose?

Am I allowed to tell a friend that I saw you in Oxford street last night? What about talking about it in public? Or posting a video of you walking down Oxford street on social media?

Is your name private information?

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Consent

(11) 'consent' of the data subject means any freely given, specific, informed and unambiguous indication of the data subject's wishes by which he or she, by a statement or by a clear affirmative action, signifies agreement to the processing of personal data relating to him or her;

Figure 1: Article 4 of GDPR defines consent as necessarily explicit.

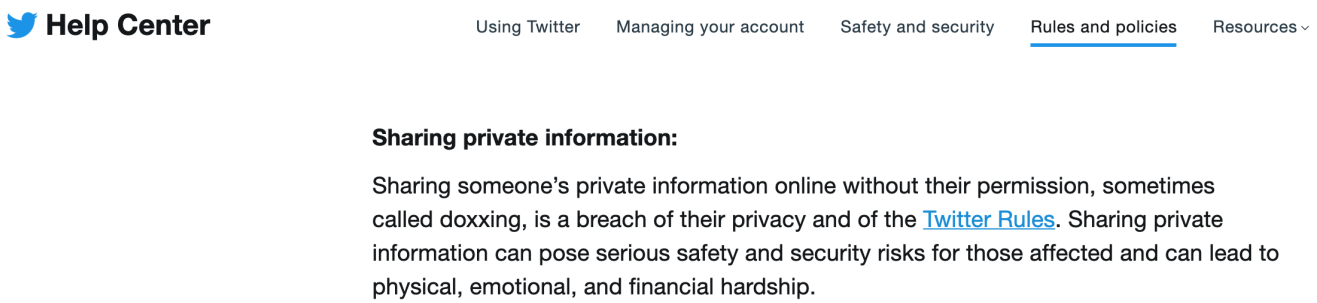

Figure 2: Twitter's terms and conditions (accessed 06/2021) expressly forbid sharing of private information about another user.

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Context, context, context

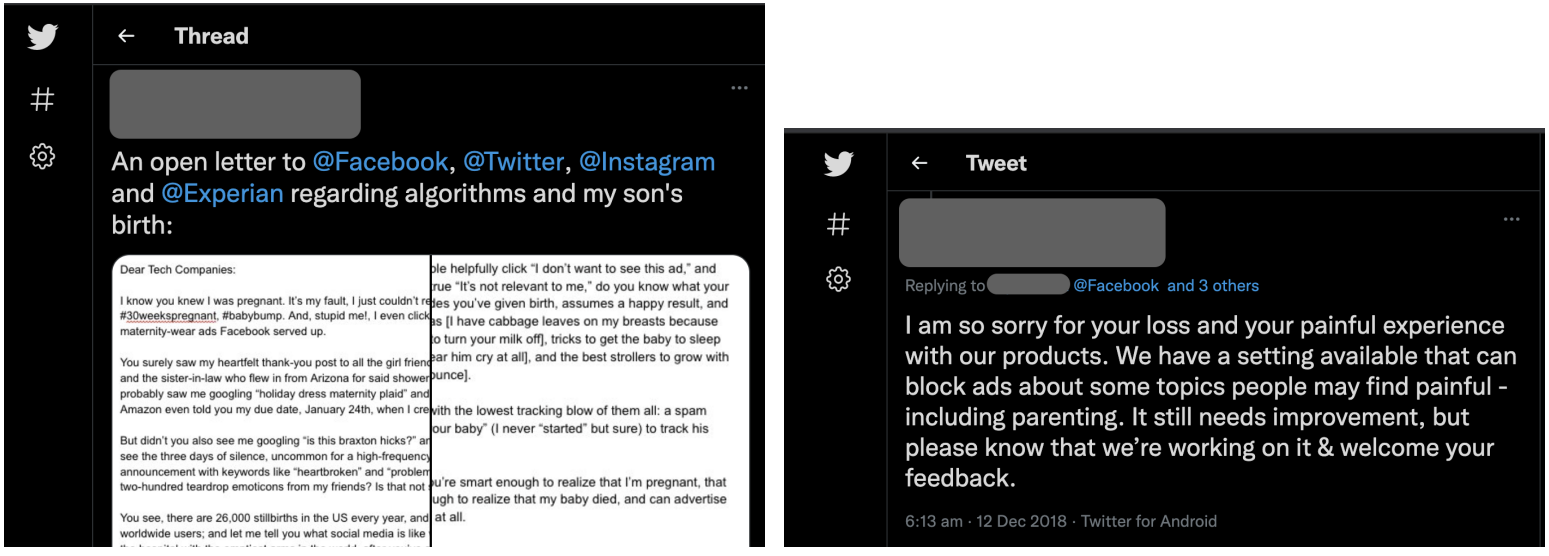

Figure 3: An open letter describing the emotional harm caused by inappropriate ads, and the response by a social media executive.

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Privacy as a universal right

No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks

UN General Assembly, 1948

Privacy as one good among many

Each individual is continually engaged in a personal adjustment process in which he balances the desire for privacy with the desire for disclosure and communication of himself to others, in light of the environmental conditions and social norms set by the society in which he lives.

Westin, 1968

Privacy is one good among other goods and should be weighed as such.

Etzioni, 2007

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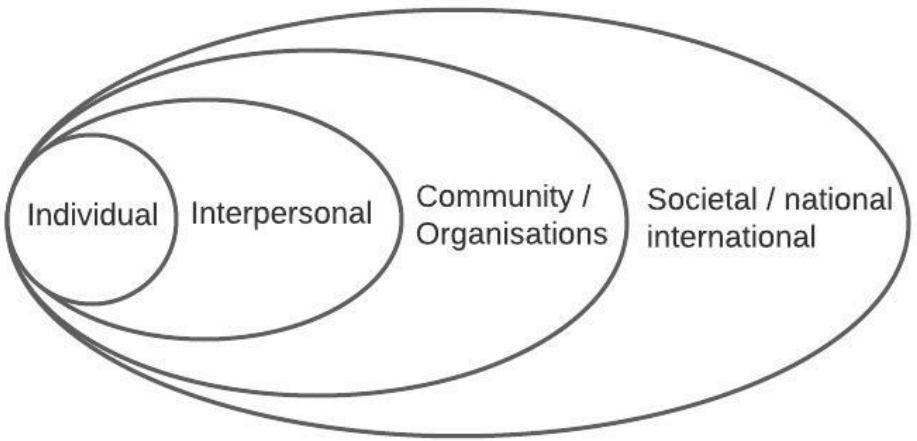
A non-western perspective

Locating privacy in the home reflects Aristotle's distinction between *Oikos* (private sphere or family home) vs *polis* (public sphere or city square) . In non-Western traditions there is often more emphasis on communities (Basu, 2012).



Where does digital live?

Figure 4: An adaptation of the social-ecological model by Bronfenbrenner, 1979 illustrates the layered nature of social spheres.

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From privacy to data ethics

In late 70s privacy is repositioned around *data* and *information*:

- in the U.S., US Privacy Protection Study Commission, 1977
- Europe, Council of Europe, 1981
- and worldwide OECD, 1980

motivated by explosion in database technology.

$\Rightarrow$ foundational framework of Fair Information Practices (FIPs) and, eventually, EU's landmark legislation, GDPR.

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The eight principles of Fair Information Practices

The OECD organised FIPs into eight basic principles:

1. Collection Limitation
2. Data Quality
3. Purpose specification
4. Use Limitation
5. Security Safeguards
6. Openness
7. Individual Participation
8. Accountability

For more details, see OECD, 2013.

Summary

- The notion of the private sphere or home can be extended to cover different social structures, including in digital space.
- Privacy is a fundamental right, but poses trade-offs.
- For our purposes, privacy is about data/information.
- Disclosure is limited in time, scope and audience.

What's next?

- Is anonymity just about removing names etc? (hint: no).
- What technical solutions are there to this problem?
- What is my responsibility as a data scientist?
- What exactly is informed consent?
- What about faces / biometrics etc?