

## Anticipated Course Readings

### Session 1

#### Course Introduction

Pedagogy: Lecture and seminar

Readings:

- boyd, danah, and Kate Crawford. "Critical Questions for Big Data." *Information, Communication & Society* 15, no. 5 (2012/06/01 2012): 662-79. <https://doi.org/10.1080/1369118X.2012.678878>.
- Richterich, Annika. *The Big Data Agenda: Data Ethics and Critical Data Studies*. London: University of Westminster Press, 2018. <http://www.oapen.org/record/650082>.

### Session 2

#### Module 1: Privacy

Pedagogy: Seminar

Readings:

- Kolata, Gina. "Your Data Were 'Anonymized'? These Scientists Can Still Identify You." *New York Times*. (July 23 2019). <https://www.nytimes.com/2019/07/23/health/data-privacy-protection.html>.
- Mai, Jens-Erik. "Big Data Privacy: The Datafication of Personal Information." *The Information Society* 32, no. 3 (2016/05/26 2016): 192-99. <https://doi.org/10.1080/01972243.2016.1153010>.
- Richterich, Annika. *The Big Data Agenda: Data Ethics and Critical Data Studies*. London: University of Westminster Press, 2018. <https://library.oapen.org/handle/20.500.12657/30155>.
  - Chapter 3: *Big Data Ethical Debates*, P. 33-51

Videos:

- BBC. "The Ethics of Data - Personal Data & Privacy." 2016. Video. <https://www.youtube.com/watch?v=naaDBNSx610>.

### Session 3

#### Module 2: Ethics, Consent, and Vulnerable Populations

Pedagogy: "Split-Room Debate" in seminar

Readings:

- Aurucci, Paolo. "Legal Issues in Regulating Observational Studies: The Impact of the GDPR on Italian Biomedical Research." *European Data Protection Law Review* 5, no. 2 (2019): 197-208. <https://doi.org/https://doi.org/10.21552/edpl/2019/2/9>.
- Franzke, Aline Shakti, Bechmann, Anja, Zimmer, Michael, Ess, Charles and the Association of Internet Researchers (2020). *Internet Research: Ethical Guidelines 3.0*. <https://aoir.org/reports/ethics3.pdf>.
- Mittelstadt, Brent. "The Ethics of Biomedical 'Big Data' Analytics." *Philosophy & Technology* 32, no. 1 (2019): 17-21. <https://doi.org/10.1007/s13347-019-00344-z>.
- Vayena, Effy, and Alessandro Blasimme. "Health Research with Big Data: Time for Systemic Oversight." *The Journal of Law, Medicine & Ethics* 46, no. 1 (2018): 119-29. <https://doi.org/10.1177/1073110518766026>.

Optional readings:

- Floridi, Luciano, and Mariarosaria Taddeo. "What Is Data Ethics?." *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering*

*Sciences* 374, no. 2083 (2016/12/28 2016): 20160360.  
<https://doi.org/10.1098/rsta.2016.0360>.

#### Session 4

##### Module 3: Surveillance and Democracy

Pedagogy: Seminar

Readings:

- Berinato, Scott. "There's No Such Thing as Anonymous Data." Article. *Harvard Business Review Digital Articles* (2015): 2-4. <https://hbr.org/2015/02/theres-no-such-thing-as-anonymous-data>.
- Editorial. (2020). Facial-recognition research needs an ethical reckoning. *Nature.*, 587, 330. [doi:https://doi.org/10.1038/d41586-020-03256-7](https://doi.org/10.1038/d41586-020-03256-7)
- Pangburn, D.J. "Even This Data Guru Is Creeped out by What Anonymous Location Data Reveals About Us." *Fast Company*. (2017). <https://www.fastcompany.com/3068846/how-your-location-data-identifies-you-gilad-lotan-privacy>.
- Richterich, Annika. *The Big Data Agenda: Data Ethics and Critical Data Studies*. London: University of Westminster Press, 2018. <http://www.oapen.org/record/650082>.
  - Chapter 4: *Big Data in Biomedical Research*, P. 66-70
  - Chapter 5: *Big Data-Driven Health Surveillance*, P. 71-90

##### Optional readings:

- **Bechmann, Anja. "Data as Humans: Representation, Accountability, and Equality in Big Data." Chap. 3 In *Human Rights in the Age of Platforms*, edited by Rikke Frank Jørgensen, 73-94. Cambridge, Mass: The MIT Press, 2019.**

#### Session 5

##### Module 4: Anonymization of Data, Synthetic Data, and Data Scraping

Pedagogy: Seminar

Readings:

- de Montjoye, Yves-Alexandre, César A. Hidalgo, Michel Verleysen, and Vincent D. Blondel. "Unique in the Crowd: The Privacy Bounds of Human Mobility." Article. *Scientific Reports* 3 (03/25/online 2013): 1376. <https://doi.org/10.1038/srep01376>. <http://dx.doi.org/10.1038/srep01376>.
- de Montjoye, Yves-Alexandre, Laura Radaelli, Vivek Kumar Singh, and Alex "Sandy" Pentland. "Unique in the Shopping Mall: On the Reidentifiability of Credit Card Metadata." *Science* 347, no. 6221 (2015): 536. <https://doi.org/10.1126/science.1256297>.
- **Laboratory for Information and Decision Systems. "The real promise of synthetic data." *MIT News*. (2020). <https://news.mit.edu/2020/real-promise-synthetic-data-1016>**
- **Mancosu, M., & Vegetti, F. (2020). What You Can Scrape and What Is Right to Scrape: A Proposal for a Tool to Collect Public Facebook Data. *Social Media + Society*, 6(3), 2056305120940703. doi:10.1177/2056305120940703**

#### Session 6

##### Module 5: The Right to be Forgotten

Pedagogy: Seminar

Readings:

- Bertram, Theo, Elie Bursztein, Stephanie Caro, Hubert Chao, Rutledge Chin Feman, Peter Fleischer, Albin Gustafsson, *et al.* "Five Years of the Right to Be Forgotten."

Proceedings of the 2019 ACM SIGSAC Conference on Computer and Communications Security, London, United Kingdom, ACM, 2019.

- Google. *Requests to Delist Content under European Privacy Law*. (2018). [https://transparencyreport.google.com/eu-privacy/overview?requests\\_over\\_time=country:DE&lu=requests\\_over\\_time](https://transparencyreport.google.com/eu-privacy/overview?requests_over_time=country:DE&lu=requests_over_time).
- Xue, Minhui, Gabriel Magno, Evandro Cunha, Virgilio Almeida, and Keith Ross. "The Right to Be Forgotten in the Media: A Data-Driven Study." *Proceedings on Privacy Enhancing Technologies 2016* (02/29 2016). <https://doi.org/10.1515/popets-2016-0046>.

#### Session 7

Extra module: Data ownership in age of automation

Pedagogy: Seminar

Readings: TBD

#### Session 8

Module 6: Discrimination (including Algorithmic Bias)

Pedagogy: Seminar

Readings:

- Richterich, Annika. *The Big Data Agenda: Data Ethics and Critical Data Studies*. London: University of Westminster Press, 2018. <http://www.oapen.org/record/650082>.
  - Chapter 3: *Big Data: Ethical Debates*, P. 45-48 (Algorithmic Bias)
- Semuels, Alana. "The Internet Is Enabling a New Kind of Poorly Paid Hell." *The Atlantic*. (2018). <https://www.theatlantic.com/business/archive/2018/01/amazon-mechanical-turk/551192/>.
- Wattenberg, Martin, Fernanda Viégas, and Moritz Hardt. "Attacking Discrimination with Smarter Machine Learning." *Google Research* 17 (2016). [https://research.google.com/bigpicture/attacking-discrimination-in-ml/?utm\\_content=buffer177da&utm\\_medium=social&utm\\_source=twitter.com&utm\\_campaign=buffer](https://research.google.com/bigpicture/attacking-discrimination-in-ml/?utm_content=buffer177da&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer).

Videos:

- Buolamwini, Joy. "How I'm Fighting Bias in Algorithms". 2016. Video. [https://www.ted.com/talks/joy\\_buolamwini\\_how\\_i\\_m\\_fighting\\_bias\\_in\\_algorithms?language=en](https://www.ted.com/talks/joy_buolamwini_how_i_m_fighting_bias_in_algorithms?language=en)
- O'Neil, Cathy. "The Era of Blind Faith in Big Data Must End." 2017. Video. [https://www.youtube.com/watch?v=\\_2u\\_eHHzRto](https://www.youtube.com/watch?v=_2u_eHHzRto).

#### Session 9

Module 7: Public Policy: How to fix these issues?

Pedagogy: Seminar

Readings:

- Narayanan, Arvind, Joanna Huey, and Edward W. Felten. "A Precautionary Approach to Big Data Privacy." In *Data Protection on the Move: Current Developments in Ict and Privacy/Data Protection*, edited by Serge Gutwirth, Ronald Leenes and Paul De Hert, 357-85. Dordrecht: Springer Netherlands, 2016.
- Singh Guliani, Neema "We Should Be Able to Take Facebook to Court." *New York Times*. (2019). <https://nyti.ms/2RB3b3Y>.