Syllabus of Introduction to Data Ethics

Ph.D. course, University of Milan, Instructor: Marco Cremonini

Every lesson, except the first one Introduction, will last 2 hours and 30 minutes and will be dedicated to analyze and discuss issues and problems raised by the suggested papers. In the first 30 minutes (approximately) the instructor will summarize the main points of the papers and highlight the key open issues. Following this, students should elaborate on the open issues, possibly raise others, actively engage in open discussion and analyses. Together students should draw some conclusions and lesson learned at the end of the class.

Introduction (04 Feb 2019)

• 	Tech Ethics Curricula: A Collection of Syllabi. C. Fiesler, 2018. https://medium.com/@cfiesler/tech-ethics-curricula-a-collection-of-syllabi-3eedfb76be18

1. Data Ethics (11 Feb 2019)

• 	The ethics of algorithms: Mapping the debate. B. D. Mittelstadt, P. Allo, M. Taddeo, S. Wachter and L. Floridi, Big Data & Society 3.2 : 2053951716679679, 2016. http://journals.sagepub.com/doi/pdf/10.1177/2053951716679679
• 	Toward an Ethics of Algorithms: Convening, Observation, Probability, and Timeliness. M. Ananny, Science, Technology, & Human Values, SAGE, Vol. 41(1) 93-117, 2016. http://journals.sagepub.com/doi/pdf/10.1177/0162243915606523
• 	Social data: Biases, methodological pitfalls, and ethical boundaries. A. Olteanu et al., Microsoft, 2016. https://www.microsoft.com/en-us/research/wp-content/uploads/2017/03/SSRN-id2886526.pdf
• 	AI Now Report 2018. M. Whittaker et al, AI Now Institute, New York University, 2018. https://ainowinstitute.org/AI_Now_2018_Report.pdf

2. Agency and Big Data (13 Feb 2019)

• 	The Ethics of Big Data: Current and Foreseeable Issues in Biomedical Contexts. B. D. Mittelstadt and L. Floridi, Science and engineering ethics 22.2 : 303-341, 2016. https://link.springer.com/article/10.1007/s11948-015-9652-2
• 	Algorithmic harms beyond Facebook and Google: Emergent challenges of computational agency. Z. Tufekci, J. on Telecomm. & High Tech. L., 13, 203, 2015. http://www.academia.edu/download/39356767/Algorithmic_Harms.pdf
• 	Big Data's End Run around Anonymity and Consent. S. Barocas and H. Nissenbaum, Chapter 2, Privacy, Big Data, and the Public Good Frameworks for Engagement, Cambridge University Press, 2014. https://nissenbaum.tech.cornell.edu/papers/BigDatasEndRun.pdf

3. Bias and Fairness (18 Feb 2019)

- Help Wanted: An Examination of Hiring Algorithms, Equity, and Bias. M. Bogen and A. Rieke, Upturn Report, 2018. https://www.upturn.org/reports/2018/hiring-algorithms/
- Machine Bias - There's software used across the country to predict future criminals. And it's biased against blacks, J. Angwin et. al. Pro Publica, 2016. https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing
- Supposedly 'fair' algorithms can perpetuate discrimination. Joi Ito, WIRED, 2019. https://www.wired.com/story/ideas-joi-ito-insurance-algorithms
- Algorithmic decision making and the cost of fairness. Corbett-Davies, S., Pierson, E., Feller, A., Goel, S., & Huq. In Proceedings of the 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (pp. 797-806). ACM., 2017. https://footprints.stanford.edu/papers/fairness.pdf

4. Machine Ethics, Self-driving Cars, and the Trolley Problem (21 Feb 2019)

- The Moral Machine experiment. E. Awad et al., Nature, 563.7729 : 59, 2018. https://www.nature.com/articles/s41586-018-0637-6.pdf
- The Trolley Problem. J. J. Thomson, 94 Yale L. J. 1395, 1984. http://mrdivis.yolasite.com/resources/trolley%20problem.pdf
- Incorporating Ethics into Artificial Intelligence. A. Etzioni and O. Etzioni, J Ethics, 2017. https://link.springer.com/article/10.1007/s10892-017-9252-2

5. Transparency and Algorithmic Accountability (25 Feb 2019)

- Seeing without knowing: Limitations of the transparency ideal and its application to algorithmic accountability. M. Ananny and K. Crawford, New Media & Society 20.3 : 973-989, 2018. http://mike.ananny.org/papers/anannyCrawford_seeingWithoutKnowing_2016.pdf
- The limits of transparency: Data brokers and commodification. M. Crain, New Media & Society 20.1 : 88-104, 2018. http://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1177&context=qc_pubs

6. China as a Data-driven Society (27 Feb 2019)

- China's Social Credit System: An Evolving Practice of Control. R. Creemers, University of Leiden, 2018. http://www.iberchina.org/files/2018/social_credit_china.pdf
- Chinese Social Media and Big Data: Big Data, Big Brother, Big Profit?. M. Jiang and K. Fu, Policy & Internet, Vol. 10, No. 4, 2018. https://onlinelibrary.wiley.com/doi/10.1002/poi3.187
- China's Social Credit Systems and Public Opinion: Explaining High Levels of Approval. Genia Kostka, Freie Universität Berlin, 2018. https://www.researchgate.net/profile/Genia_Kostka/publication/328467411_China