UNIVERSITY OF OREGON
Department of Philosophy

Data Ethics Webinar Series 2020

Organizers

Ramón Alvarado (University of Oregon)
John Symons (University of Kansas)
Kamuran Osmanoglu (Koç University)

Webinar Series

The Philosophy Department at the University of Oregon—in collaboration with the Oregon Humanities Center as well as with faculty at the University of Kansas and Koç University— is pleased to host a monthly webinar-style conversation series on Data Ethics.

Data-driven methodologies, practices and technologies are ubiquitous in scientific inquiry and policy-making contexts. The socio-technical implications and limitations of their use are now gradually being acknowledged as deep and complex. Underlying these implications and our understanding of them are philosophical issues regarding knowledge-acquisition, epistemic and ethical responsibilities, as well as issues regarding formatting (data-base structure, analysis structure), ontologies (categories/clusters) and privacy concerns. This webinar series on data ethics will provide an overview of the fundamental philosophical, ethical and socio-technical issues related to the practice of data science and associated computational methodology (machine learning, artificial intelligence, etc.).

The webinar will consist of **two online meetings a month (~1hr)**. One meeting will be an internal/institutional online discussion meeting reserved to those institutionally affiliated people with an interest in data ethics. This **first meeting will be a seminar style discussion** based on assigned readings for the monthly topic; a **second monthly public meeting (~1hr) will be reserved to welcome a speaker** for a thorough discussion/talk of a topic in data ethics.

This webinar series is possible in part thanks to the generosity of the Oregon Humanities Center's Endowment for Public Outreach in the Arts, Sciences, and Humanities as well as academic sponsorship opportunities from Ripple Labs Inc. at the University of Kansas.

For any questions regarding scheduling and registration please visit this webpage or contact Ramón Alvarado at ralvarad@uoregon.edu with subject line "data ethics webinar".

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Summer-Fall 2020 Program

July
Wednesday, July 22nd 11:00am (Pacific)
Readings/Discussion Topic: *What is data ethics and what can it do?*
Wednesday, July 29th 11:00am (Pacific)
Speaker: Reid Blackman Ph.D. (Virtue, Ethical Risk Consultancy)

August
Wednesday, August 12th 11:00am (Pacific)
Readings/Discussion Topic: *The Confucian and the Californian ideology: contrasting approaches to the development of the internet and their role in the growth of a data economy.*
Thursday, August 20th 11:00am (Pacific)
Speaker: Tom (Xiaowei) Wang (Renmin University of China)

September
Thursday, September 17 11:00am (Pacific)
Readings/Discussion Topic: Epistemic Injustice in Data Ethics: identifying the harms particular to data science.
Thursday, September 24rd 11:00am (Pacific)
Speaker: Ramón Alvarado (University of Oregon), John Symons (University of Kansas)

October
Thursday, October 15th 11:00am (Pacific)
Readings/Discussion Topic: *Data technology, policy and governance: what is the role of data science in democratic society and 12thcan we trust it?*
Thursday, October 22nd 11:00am (Pacific)
Speaker: Denisa Kera (University of Salamanca)

November
Thursday, November 12th 11:00am (Pacific)
Readings/Discussion Topic: *Data and us: forms, algorithms and the data subject.*
Wednesday, November 18th 11:00am (Pacific)
Speaker: Colin Koopman (University of Oregon)

December
Thursday, December 3rd 11:00am (Pacific)
Readings/Discussion Topic: *Data Science in Scientific Inquiry: Philosophical issues.*
Wednesday, December 9th 11:00am (Pacific)
Speaker: Sabina Leonelli (University of Exeter)

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Detailed Program

July

Webinar Meeting: Wednesday, July 22nd 11:00am (Pacific):
Topic: *What is data ethics and what can it do?*

Recently, we have seen growing attention in industry, government, and science to ethical questions concerning the use of computational methods associated with data science, such as machine learning, artificial intelligence and big data analytics. Problems like algorithmic bias with respect to gender, race and socioeconomic status, or the deployment of powerful surveillance tools are now widely recognized as ethically problematic and are garnering increased public attention. An emerging field of data ethics seeks to respond to these concerns.

There is a large debate, however, about what exactly is data ethics and, more importantly, how are we to implement the research that emerges from the field in the real world where technology companies and policy-makers are trying to make a difference in a data-driven world. In order to more clearly understand what data ethics is and why we need the insights from the discipline in policy-making and the tech industry, this session will explore an introductory account of this emerging discipline and contrast it with real-world applications of the concepts therein.

Readings

- Floridi, Luciano and Taddeo, Mariarosaria. December 2016. What is data ethics. *Phil. Trans.R.Soc. A* 374(2083). Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2907744

- Mittelstadt, Brent Daniel., and Floridi, Luciano. 2016. The ethics of big data: current and foreseeable issues in biomedical contexts. *Science and engineering* 22(2): 303-341. Available at: https://link.springer.com/content/pdf/10.1007/s11948-015-9652-2.pdf

- Jobin, Anna., Ienca, Marcello., and Vayena, Effy. 2019. Artificial intelligence: The global landscape of ethics guidelines. *Nature Machine Intelligence* 1(9): 389-399. Available at: https://arxiv.org/pdf/1906.11668.pdf

- Moss, Emmanuel., and Metcalf, Jacob. 2019. Too big a word: what does it mean to do "ethics" in the technology industry? *Social Research: An International Quarterly*, 86(2): 449-476. Available at: https://points.datasociety.net/too-big-a-word-13e66e62a5bf

Wednesday, July 29th 11:00am (Pacific) Speaker: Reid Blackman Ph.D (*Virtue*, Ethical Risk Consultancy)**.**

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August

Webinar Meeting: Wednesday, August 12th 11:00am (Pacific)
Topic: *The Confucian and the Californian ideology: two contrasting approaches to the development of the internet and their role in the growth of a data economy.*

Advocates of technological access often tie their argumentative strategy to the value of democratic principles, which are in turn often justified by appealing to things like privacy, private property, personal security and/or other sort of norms strongly associated with the development of western political culture. There are other reasons to defend the right to access to technological resources such as the internet, which do not assume these principles and/or norms to be a necessary element of this right. The Confucian response is one of these alternative justifications of the right to access to internet technologies. It questions the validity of positions that strongly rely on assumptions related to property, security, and privacy, as understood in western political culture.

In order to truly grasp the fundamental philosophical issues related to the vast influx of human data which makes the internet what it is, it is important to understand the principles and norms that guide the design, development and deployment of its underlying infrastructure as well as the social role it plays in different societies. In this session we explore the foundations and implications of the Confucian approach to internet technology as well as its contrast with ideological positions commonly associated with the rise of the tech industry in silicon valley. We will also look at the history of the ideas behind the development of the internet as an information and communication infrastructure and its role in the rise of a data-driven economy.

Readings:

- Wang, Xiaowei. 2017. A human right to internet access: A confucian perspective. *Asian Culture and History* 9(1): 6-14. Available at: http://www.ccsenet.org/journal/index.php/ach/article/view/41916

- Barbrook, Richard., and Cameron, Andy. The Californian ideology. *Science as Culture* 6(1): 44-72. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.460.8355&rep=rep1&type=pdf

- Zuboff, S. 2015. Big other: Surveillance capitalism and the prospects of an information civilization. *Journal of Information Technology*, 30 (1): 75-89. http://geopolitica.iiec.unam.mx/sites/default/files/2018-10/Zuboff-BigOther.pdf

Thursday, August 20th 11:00am (Pacific) Speaker: Tom (Xiaowei) Wang Associate Professor, Department of Philosophy of Science and Technology at the School of Philosophy, Renmin University of China.

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September

Webinar Meeting: Thursday, September 17 11:00am (Pacific)
Topic: *Epistemic Injustice in Data Ethics: identifying the harms particular to data science and expanding the scope of data ethics beyond instances in which the technology goes wrong.*

Much of the recent discussion in the newly emerging fields of AI ethics and data ethics revolves around design and governance standards that ensure the technology works correctly and is not deployed in 'harmful' projects. However, that ethical issues related to data science practices are exclusively to be found when things go wrong/are used wrongly/or are deployed in a wrong setting is not immediately obvious.

This month we explore the fundamental questions and issues related to the emerging field of data ethics and examine the extent to which they apply beyond mere incorrect applications of data science. We will explore the notion that, in contrast with other technologies, the ethical implications of data science methods, practices and applications (particularly when deployed in decision-making contexts) go beyond error and misjudgment on the part of the users and developers. Rather, the harms associated with data science may emerge from the fact that the way in which it works, when it works, and/or if it works is not thoroughly transparent to its users, to those on the receiving end of its results, and sometimes even to its developers. In other words, it is an opaque technology that, in being inaccessible, diminishes our status as knowers. This is known as an epistemic harm.

Readings:

- Alvarado, Ramón., and Symons, John. (forthcoming). Epistemic injustice in data science.
- Burrell, Jenna. 2016. How the machine 'thinks': understanding opacity in machine learning algorithms. *Big Data & Society*, 3 (1): 1-12. Available at: https://journals.sagepub.com/doi/pdf/10.1177/2053951715622512
- Suresh, Harini., and Guttag, John.V. 2019. A framework for understanding unintended consequences of machine learning. *arXiv preprint arXiv:1901.10002*. Available at: https://arxiv.org/pdf/1901.10002.pdf

Thursday, September 24rd 11:00am (Pacific) Speakers: Ramón Alvarado (University of Oregon), John Symons (University of Kansas).

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October

Webinar Meeting: Thursday, October 15th 11:00am (Pacific)
Topic: *Data technology, policy and governance: what is the role of data science in democratic society and can we trust it?*

From scientific models to business analytics, computational methods are more and more prevalent in policy-making and governance contexts. In a sense, many of these technologies were designed to handle these kinds of scenarios in business logistics, resource allocation and information flow. However, technologies such as data-driven models, computer simulations and blockchain processes have been gradually entering the decision-making environment in issues of public interest in a way that deals directly with people's lives and not just the allocation of inanimate resources.

In this month's session we address the reliability and trustworthiness of computational and data-driven technologies in policy-making.

Readings:

- Brennan, Jason., Surprenant, Chris., and Winsberg, Eric. 2020. How government leaders violated their epistemic duties during the SARS-CoV-2 crisis. *Kennedy Institute of Journal Ethics*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3605981

- Kera, Denisa Reshef. 2020 Anticipatory Policy as a Design Challenge: Experiments with Stakeholders Engagement in Blockchain and Distributed Ledger Technologies (BDLTs). In: Prieto J., Das A., Ferretti S., Pinto A., Corchado J. (eds) Blockchain and Applications. BLOCKCHAIN 2019. Advances in Intelligent Systems and Computing, vol 1010. Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-23813-1_11

- Koopman, Colin. 2018. Infopolitics, biopolitics, anatomopolitics: Toward a genealogy of the power of data. *Graduate Faculty Philosophy Journal* 39(1): 103-128. Available at: https://philarchive.org/archive/KOOIBA

- Couldry, Nick. 2017. Surveillance-democracy. *Journal of Information Technology & Politics* 14(2): 182-188. Available at: http://eprints.lse.ac.uk/69873/1/Couldry_Surveillance_author.pdf

Thursday, October 22nd 11:00am (Pacific) Speaker: Denisa Kera, Marie Curie research fellow at the University of Salamanca.

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November

Webinar Meeting Thursday, November 12th 11:00am (Pacific)
Topic: *Data and us: forms, algorithms and the data subject*

Although much attention is given to contemporary data technologies, the conceptual framework which allowed us to understand, integrate and navigate these new platforms and infrastructures into our lives began before the advent of modern computational methods. Similarly, much of the debate regarding fairness and accountability in machine learning technology owes much of its conceptual framework to early research done on statistical analysis of standardized testing from the mid 1960's. In order to understand the philosophical, ethical and social implications of contemporary data technologies we must first look 'under the hood' and beyond the current research and technology trends.

For this session, we will be exploring the history of the conceptual framework behind much of current data-driven technology. We will also explore an overview of the ethical debates surrounding the design, development and deployment of machine-learning methods.

Readings:

- Mittelstadt, Brent Daniel, et al. 2016. The ethics of algorithms: Mapping the debate. *Big Data & Society* 3(2): 1-21. Available at: https://journals.sagepub.com/doi/pdf/10.1177/2053951716679679

- Koopman, Colin. 2019. Information before information theory: The politics of data beyond the perspective of communication. *New Media & Society 21*(6): 1326-1343. Available at: https://journals.sagepub.com/doi/pdf/10.1177/1461444818820300

- Hutchinson, Ben., and Mitchell, Margaret. 2019. 50 years of test (un) fairness: Lessons for machine learning. *Proceedings of the Conference on Fairness, Accountability, and Transparency*: 49-58. Available at: https://arxiv.org/pdf/1811.10104.pdf

- Amoore, Louise. 2011. Data derivatives: On the emergence of a security risk calculus for our times. *Theory, Culture & Society 28*(6): 24-43. Available at: http://dro.dur.ac.uk/9331/1/9331.pdf

Wednesday, November 18th 11:00am (Pacific) Speaker: Colin Koopman. Professor of Philosophy, University of Oregon.

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December

Webinar Meeting: Thursday, December 3rd 11:00am (Pacific)
Topic: *Data Science in Scientific Inquiry: Philosophical issues.*

Although much attention is devoted to the social contexts in which data science is deployed, there are fundamental philosophical issues— in epistemology, ontology, ethics—related to the ways in which data science is used in scientific inquiry that are often at the center of controversies surrounding data technology. The ubiquity of data-driven technology has traversed, back and forth, many disciplinary boundaries in the last decades. From exclusive computer science applications, to business practices to research in the natural and social sciences, and now to governance data-driven technology is now everywhere. Its status in scientific inquiry, however, is yet unestablished. Whether or not and/or when can data science methodology offer sound scientific products is still being debated as its presence grows.

Understanding the underlying philosophical issues of the use of data science methods in scientific inquiry can lead us to more accurately assess the harms and/or the benefits of data science practices when they are deployed in socially relevant contexts.

Readings:

- Leonelli, Sabina, "Scientific Research and Big Data", *The Stanford Encyclopedia of Philosophy* (Summer 2020 Edition), Edward N. Zalta (ed.), forthcoming https://plato.stanford.edu/archives/sum2020/entries/science-big-data/

- Symons, John., and Alvarado, Ramón. 2016. Can we trust Big Data? Applying philosophy of science to software. *Big Data & Society 3*(2): 1-17. Available at: https://journals.sagepub.com/doi/pdf/10.1177/2053951716664747

- Boyd, Danah., and Crawford, Kate. 2012. Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon. *Information, communication & society*, 15(5): 662-679. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.441.9822&rep=rep1&type=pdf

- Locating ethics in data science: responsibility and accountability in global and distributed knowledge production systems; Sabina Leonelli: https://royalsocietypublishing.org/doi/pdf/10.1098/rsta.2016.0122

Wednesday, December 9th 11:00am (Pacific) Speaker: Sabina Leonelli Professor of Philosophy and History of Science, University of Exeter.