

Geoff Keeling

Education & Employment

- 2020–Pres. **Interdisciplinary Ethics Fellow**, *Stanford University*.
Center for Ethics in Society and Institute for Human-Centered AI.
- 2020–Pres. **Associate Fellow**, *University of Cambridge*.
Leverhulme Centre for the Future of Intelligence.
- 2019–2020 **Research Assistant**, *University of Cambridge*.
Leverhulme Centre for the Future of Intelligence.
- 2017–2020 **PhD in Philosophy**, *University of Bristol*.
No Corrections. Supervisors: Richard Pettigrew and Brad Hooker.
- 2016–2017 **MA in Philosophy**, *University of Bristol*.
Distinction. Ranked 1st out of a class of 24.
- 2013–2016 **BSc in Philosophy, Logic and Scientific Method**, *London School of Economics*.
First Class Honours. Ranked joint-1st out of a class of 51.

Research

- AOS Moral and Political Philosophy (esp. Ethics of AI, Medical Ethics, Ethics of Risk)
- AOC Logic, Formal Epistemology, Decision Theory, Philosophy of Science

Publications

- 2020 **Paterson, N. and Keeling, G.**, "Proper Functions: Etiology Without Typehood" in *Synthese*, (Revise and Resubmit, Revisions in Progress).
- Keeling, G and Nyrup, R.**, "Explainable Machine Learning, Autonomy, and Clinical Reasoning" in *Oxford Handbook of Digital Ethics*, OUP, (Accepted Manuscript).
- Keeling, G.**, "Automated Vehicles and the Ethics of Classification" in *Autonomous Vehicle Ethics: Beyond the Trolley Problem*, OUP, (Accepted Manuscript).
- Grote, T. and Keeling, G.**, "On Algorithmic Fairness in Medical Practice" in *Cambridge Quarterly of Healthcare Ethics*, (Accepted Manuscript).
- Keeling, G.**, "Why Trolley Problems Matter for the Ethics of Automated Vehicles" in *Science and Engineering Ethics*, 26, pp.293-307.
- 2019 **Keeling, G., Evans, K., Thornton, S.M., Mecacci, G., Santoni de Sio, F.**, "Four Perspectives on What Matters for the Ethics of Automated Vehicles" in *Road Vehicle Automation 6*, Springer, pp.49-60.
- 2018 **Keeling, G.**, "Legal Necessity, Pareto Efficiency and Justified Killing in Autonomous Vehicle Collisions" in *Ethical Theory and Moral Practice*, 21, pp.413-427.

- Keeling, G.**, "Against Leben's Rawlsian Collision Algorithm for Autonomous Vehicles" in *Philosophy and Theory of Artificial Intelligence*, Springer, pp.259-272.
- 2017 **Keeling, G.**, "Commentary: Using Virtual Reality to Assess Ethical Decisions in Road Traffic Scenarios" in *Frontiers in Behavioral Neuroscience*, 11, pp.247-248.
- Burr, C. and Keeling, G.**, "Building Machines that Learn and Think About Morality" in *AISB Proceedings*, 44, pp.1-8.
- Keeling, G.**, "The Sensitivity Argument Against Child Euthanasia" in *Journal of Medical Ethics*, 44, pp.143-144.
- Keeling, G.**, "Autonomy, Nudging and Post-Truth Politics" in *Journal of Medical Ethics*, 44, pp.721-722.

Awards and Grants

- 2020 **Shortlisted SCOPUS Early Career Researcher UK Award.**
5 UK Early Career Researchers shortlisted Arts and Humanities in total.
- Nominated Best Doctoral Research Thesis Prize**, *ca.£500.*
Faculty of Arts, University of Bristol (Final Decision Pending).
- Society for Applied Philosophy Conference Grant**, *ca.£1,100.*
Joint award with Rune Nyruup for Explainable AI in Healthcare workshop.
- 2019 **National Science Foundation Travel Grant**, *ca.\$2,700.*
Travel, accomodation and conference fee for the Automated Vehicles Symposium.
- 2017 **Arts and Humanities Research Council PhD Studentship**, *ca.£60,000.*
Awarded through the South, West and Wales Doctoral Training Partnership.
- 2016 **Andrea Mannu Prize**, *London School of Economics.*
Awarded for joint-best performance across all degree programmes administered by the Department of Philosophy, Logic and Scientific Method (joint-1st/51).

Talks

- 2020 **Decision Support Systems and Clinical Reasoning: A Peircean Approach.**
Virtual Workshop on Philosophy of Medical AI (with Rune Nyruup, Invited Speaker)
- On Algorithmic Fairness in Medical Practice.**
Workshop on Algorithmic Fairness, University of Copenhagen (with Thomas Grote)
- Medical Reasoning in the Age of Artificial Intelligence.**
Milton Keynes AI Community AI Expert Forum (Keynote Speaker)
- 2019 **The Ethics of Artificial Intelligence in Healthcare.**
Austin Vita/Ethical Reading Public Lecture, Reading (Keynote Speaker)
- Treatment Recommender Algorithms and Informed Consent.**
Issues in Explainable AI, Saarland University (with Rune Nyruup, Invited Speaker)
- Object Classification and the Reasonable Belief Standard.**
Automated Vehicles Symposium, Orlando FL (Invited Speaker)
Research Institute for Ethics and Law, University of Swansea (Invited Speaker)

Proper Functions: Etiology Without Typehood.

British Society for the Philosophy of Science, University of Durham

Ninth Philosophy of Biology and Cognitive Sciences Research Workshop, University of the Basque Country (with Niall Paterson)

Bayes Classifiers and the Ethics of Automated Vehicles.

2nd Centre for Ethics, Philosophy and Public Affairs Graduate Conference on Moral and Political Philosophy, University of St Andrews

iCog5: Approaches to Higher Cognitive Function, University of Reading

Smart Cities Workshop, University of Bristol (Invited Speaker)

2018 **Uncertainty About Persons in Autonomous Vehicle Collisions.**

Automated Vehicles Symposium, San Francisco CA (Invited Speaker)

St Edward's School, Oxford (Keynote Speaker)

Building Machines that Learn and Think About Morality.

Annual Convention of the Society for the Study of Artificial Intelligence and the Simulation of Behaviour, University of Liverpool (with Christopher Burr)

Simulating Automated Vehicle Collisions in Virtual Reality.

South, West and Wales Doctoral Training Partnership Research Cluster on Science, Technology, Engineering, Arts and Mathematics (STEAM)

2017 **Against Leben's Rawlsian Algorithm for Autonomous Vehicles.**

Philosophy and Theory of Artificial Intelligence, University of Leeds

Artificial Ethics Symposium, University of Southampton

Reliability Weighted Belief Revision in Peer Disagreements.

Ninth European Congress of Analytic Philosophy, LMU Munich

Graduate Conference on Epistemology of Disagreement, University of Tartu

Blame in Autonomous Vehicle Collisions.

Annual Convention of the Society for the Study of Artificial Intelligence and the Simulation of Behaviour, University of Bath

2016 **Neuroscience, Criminal Liability and the Voluntary Act Requirement.**

Sheffield Undergraduate Philosophy Conference, University of Sheffield

The Evolution of Moral Responsibility.

Bristol Undergraduate Rationality Research Group, University of Bristol

2015 **Evolutionary Biology, Moral Intuitions and the Is-Ought Problem.**

3rd Annual LSE-Bayreuth Undergraduate Conference, LSE

Reading Undergraduate Philosophy Conference, University of Reading

Panel Discussions and Interviews

2020 **Extended Interview on the Ethics of Automated Vehicles.**

Boundless AI Podcast with Richard Foster-Fletcher

2019 **Artificial Intelligence in Healthcare.**

- Austin Vita/Ethical Reading Public Event on AI in Healthcare
with Slawomir Nasuto and Weizi Vicky Li (Chair: Kourosh Saeb-Parsy)
- 2018 **Ethics and Social Implications of Autonomous Vehicles.**
Automated Vehicles Symposium, San Francisco, CA
with Nicholas G. Evans, Ryan Jenkins and Katherine Evans (Chair: Noah Goodall)
- 2017 **Ethical Approaches to Emerging Technologies.**
Artificial Ethics Symposium, University of Southampton
with Sven Nyholm, Paul Smart and Roland J. Rogers (Chair: Will McNeill)

Professional and Administrative Service

- 2019–Pres. **Programme Committee: Philosophy After AI Symposium.**
Society for the Study of Artificial Intelligence and the Simulation of Behaviour
- 2019–2020 **Representative for Postgraduate Research Students in Philosophy.**
Faculty of Arts, University of Bristol
- 2018–2019 **President.**
British Postgraduate Philosophy Association
Executive Committee Member.
British Philosophical Association
Organiser and Chair, with *Shaun Stanley and Aadil Kurji.*
Bristol Philosophy Graduate Work in Progress Seminar
- 2017–2018 **Representative for Postgraduate Research Students in Philosophy.**
Faculty of Arts, University of Bristol
- 2016–2017 **Representative for Postgraduate Taught Students in Philosophy.**
Faculty of Arts, University of Bristol
- 2014–2016 **Assistant President and Editor in Chief.**
British Undergraduate Philosophy Society

Conferences and Workshops Organised

- 2020 **Issues in XAI-2: Explaining and Understanding in Medicine.**
Leverhulme Centre for the Future of Intelligence, University of Cambridge
- 2019 **Joint Biology and Philosophy Workshop.**
University of Bristol; Keynotes: Samir Oksaha, Mark Beaumont and Tom Williams
British Postgraduate Philosophy Association Graduate Masterclass.
University of Glasgow (Theme: Social Epistemology)
British Postgraduate Philosophy Association Graduate Masterclass.
University of St Andrews (Theme: Conceptual Engineering)
- 2018 **British Postgraduate Philosophy Association Annual Conference.**
University of Birmingham; Keynotes: Heather Widdows, Alison Jaggar and Veronique Munoz-Darde (Theme: Women in Philosophy)

- 2016 **British Undergraduate Philosophy Society Spring Conference.**
University of Cambridge; Keynote: Richard Holton
- 2015 **British Undergraduate Philosophy Society Autumn Conference.**
London School of Economics; Keynote: Tim Williamson
- British Undergraduate Philosophy Society Spring Conference.**
University of Southampton; Keynotes: Mike Otsuka and Helen Beebee
- 2014 **British Undergraduate Philosophy Society Autumn Conference.**
Birkbeck, University of London; Keynotes: M.M. McCabe and Onora O’Neill

Teaching

Stanford University

Ethics, Law and Politics of Artificial Intelligence, *Spring 2021.*

Primary Instructor and Course Designer. This course covers questions about the design and regulation of machine learning technologies. Topics include political microtargeting, algorithmic fairness, superintelligence, and explainability.

Utrecht University

Medical Ethics and the Philosophy of Medicine, *Fall 2020.*

MA Guest Lecturer. I will give a guest lecture on the ethics of diagnostic algorithms and treatment recommender systems in medicine in November 2020.

University of Bristol

Logic and Critical Thinking, *Fall 2018.*

1st Year BA Seminar Tutor. This course covers propositional logic and first-order logic plus natural deduction for both.

Introduction to Formal Logic, *Fall 2017, Fall 2018.*

1st Year BSc and MSci Seminar Tutor. Logic course for students with a maths background. Same topics as Logic and Critical Thinking plus soundness and completeness.

Political Philosophy, *Spring 2020.*

2nd Year BA Seminar Tutor. This course covers disputes in contemporary political philosophy, esp. Rawls, Nozick, Raz and Dworkin.

Research Skills for MSc Migration and Mobility Studies, *Fall 2018, Fall 2019.*

MSc Seminar Tutor (2018) and Guest Lecturer (2019). This course covers research methods used in the social sciences. I designed the research statistics part.

What is Democracy, and How Should it Work?, *Spring 2019.*

2nd and 3rd Year BA Guest Seminar Tutor. This course covers some central results in social choice theory and voting theory. I ran the seminars on Arrow’s theorem.

Knowledge and Reality (Exam Marking Only), *Spring 2020.*

1st Year BA course. This course covers analysis of knowledge, feminist epistemology, causation, counterfactuals, existence and modality.

Public Policy Work

2020 I have consulted for the UK Government's Centre for Connected and Automated Vehicles, and the UK Law Commission's Automated Vehicles Review.

Peer Review

I have refereed for the *Journal of Applied Philosophy*, *Journal of Ethics*, *Journal of Medical Ethics*, *Science and Engineering Ethics*, *Philosophy and Technology*, *Res Publica*, *AI and Society*, *IEEE Transactions on Technology and Society*, *IEEE Intelligent Transportation Systems Transactions*, *IEEE Access*, *Virtual Reality*, *International Journal of Technoethics*, and the Springer collection *Philosophy and Theory of Artificial Intelligence 2017*. I have also refereed for the AAAI/ACM Conference on AI, Ethics and Society; and the AISB Annual Convention.

References

Prof. Richard Pettigrew.

Professor of Philosophy, University of Bristol
richard.pettigrew [at] bristol.ac.uk

Prof. Brad Hooker.

Emeritus Professor of Philosophy, University of Reading
Distinguished Research Fellow, Uehiro Centre for Practical Ethics,
University of Oxford, b.w.hooker [at] reading.ac.uk

Prof. Samir Okasha.

Professor of Philosophy of Science, University of Bristol
samir.okasha [at] bristol.ac.uk

Dr Sven Nyholm.

Assistant Professor of Philosophical Ethics, Utrecht University
s.r.nyholm [at] uu.nl

Prof. Christopher Bertram.

Professor of Social and Political Philosophy, University of Bristol
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Dr Jason Konek.

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