Geoff Keeling

♀ London, United Kingdom

Employment

Senior Research Scientist, Google Research.	2023-Present
Bioethicist, Google Health.	2021-2023
Postdoctoral Fellow, Institute for Human-Centered AI & Center for Ethics in Society, Stanford University	. 2020–2021
Research Assistant, Leverhulme Centre for the Future of Intelligence, <i>University of Cambridge</i> .	2019-2020

Education

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PhD in Philosophy, University of Bristol.	2017-2020
No corrections. Advisors: Richard Pettigrew & Brad Hooker.	
MA in Philosophy, University of Bristol.	2016-2017
Distinction. Ranked 1st out of a class of 24.	
BSc in Philosophy, Logic, and Scientific Method, London School of Economics.	2013-2016

First Class Honours. Ranked joint-1st out of a class of 51.

Research

Ethics of AI/ML, Moral and Political Philosophy, Bioethics, Philosophy of Biology and Cognitive Science.

Papers

- 1. Gabriel, I.*, Manzini, A.*, **Keeling, G.***, Hendricks, L. A., Reiser, V., Iqbal, H., Tomasev, N., Ktena, I., Kenton, Z., Rodriguez, M., El-Sayed, S., Brown, S., Akbulut, C., Trask, A., Hughes, E., Bergman, A. S., Shelby, R., Marchal, N., Griffin, C., Mateos-Garcia, J., Weidinger, L., Street, W., Lange, B., Ingerman, A., Lentz, A., Enger, R., Barakat, A., Krakovna, V., Siy, J. O., Kurth-Nelson, Z., McCroskery, A., Bolina, V., Law, H., Shanahan, M., Alberts, L., Balle, B., de Haas, S., Ibitoye, Y., Dafoe, A., Goldberg, B., Kreier, S., Reese, A., Witherspoon, S., Hawkins, Rauh, M., Wallace, D., Franklin, M., Goldstein, J.A., Lehman, J., Klenk, M., Vallor, S., Biles, C., Ringel Morris, M., King, H., Agüera y Arcas, B., Isaac, W., Manyika, J. (2024). The Ethics of Advanced AI Assistants. *arXiv preprint arXiv:2404.16244*. (*Equal Contribution; Project Leads) [Media: CBS News, Axios, MarkTechPost, DeepMind Blog]
- 2. Manzini, A., **Keeling, G.**, Marchal, N., McKee, K., Reiser, V., Haas, J., Gabriel, I. (2024, June). Should Users Trust Advanced AI Assistants? Justified Trust As a Function of Competence and Alignment. In: *Proceedings of FAccT '24: ACM Conference on Fairness, Accountability, and Transparency*.
- 3. El-Sayed, S., Akbulut, C., McCroskery, A., **Keeling, G.**, Kenton, Z., Jalan, Z., Marchal, N., Manzini, A., Shevlane, T., Vallor, S., Susser, D., Franklin, M., Bridgers, S., Law, H., Rahtz, M., Shanahan, M., Tessler, M.H., Douillard, A., Everitt, T., & Brown, S. (2024). A Mechanism-Based Approach to Mitigating Harms from Persuasive Generative AI. *arXiv preprint arXiv:2404.15058.* [Media: VentureBeat]

- 4. Schaekermann, M., Spitz, T., Pyles, M., Cole-Lewis, H., Wulczyn, E., Pfhol, S.R., Martin, D., Jaroensri, R., **Keeling, G.**, Liu, Y., Farquhar, S., Xue, Q., Lester, J., Hughes, C., Strachan, P., Tan, F., Bui, P., Mermel, C.H., Peng, L.H., Matias, Y., Corrado, G.S., Webster, D.R., Virmani, S., Semturs, C., Liu, Y., Horn, I., Chen, P-H.C. (2024). Health equity assessment of machine learning performance (HEAL): a framework and dermatology AI model case study. *Lancet eClinical Medicine*. [Media: Google Keyword, Google Research Blog, MarkTechPost]
- 5. Alberts, L., **Keeling, G.**, & McCroskery, A. (2024). What makes for a 'good' social actor? Using respect as a lens to evaluate interactions with language agents. *arXiv preprint arXiv:2401.09082*.
- 6. Lange, B.*, **Keeling, G.***, McCroskery, A., Zevenbergen, B., Blascovich, S., Pedersen, K., Lentz, A., & Agüera y Arcas, B. (2023). Engaging engineering teams through moral imagination: a bottom-up approach for responsible innovation and ethical culture change in technology companies. *AI and Ethics*, 1-10. (*Equal Contribution)
- 7. Keeling, G. (2023). Algorithmic bias, generalist models, and clinical medicine. AI and Ethics, 1-12.
- 8. **Keeling, G.** & Nyrup R. Explainable machine learning, patient autonomy, and clinical reasoning. In: Véliz, C. (Ed). (2023). *Oxford Handbook of Digital Ethics* (pp. 528–552). Oxford University Press.
- 9. Keeling, G. (2023). A dilemma for reasons additivity. Economics & Philosophy, 39(1), 20-42.
- 10. Grote, T., & **Keeling, G.** (2022). Enabling fairness in healthcare through machine learning. *Ethics and Information Technology*, 24(3), 39.
- 11. **Keeling, G.** Automated vehicles and the ethics of classification. In: Jenkins, R., Cerný, D., & Hríbek, T. (Eds). (2022). *Autonomous Vehicle Ethics: The Trolley Problem and Beyond* (pp. 41-57). Oxford University Press.
- 12. Grote, T. & **Keeling, G.** (2022). On algorithmic fairness in medical practice. *Cambridge Quarterly of Healthcare Ethics*, 31(1), 83-94.
- 13. **Keeling, G.** & Burr, C. Digital manipulation and mental integrity. In: Jongepier, F., & Klenk, M. (2022). *The Philosophy of Online Manipulation* (pp. 253-271). Routledge.
- 14. Keeling, G. & Paterson, N. (2022). Proper functions: etiology without typehood. Biology & Philosophy, 37(3), 19.
- Bommasani, R., Hudson, D.A., Adeli, E., Altman, R., Arora, S., Arx, S.V., Bernstein, M.S., Bohg, J., Bosselut, A., Brunskill, E., Brynjolfsson, E., Buch, S., Card, D., Castellon, R., Chatterji, N.S., Chen, A.S., Creel, K.A., Davis, J., Demszky, D., Donahue, C., Doumbouya, M., Durmus, E., Ermon, S., Etchemendy, J., Ethayarajh, K., Fei-Fei, L., Finn, C., Gale, T., Gillespie, L., Goel, K., Goodman, N.D., Grossman, S., Guha, N., Hashimoto, T., Henderson, P., Hewitt, J., Ho, D.E., Hong, J., Hsu, K., Huang, J., Icard, T.F., Jain, S., Jurafsky, D., Kalluri, P., Karamcheti, S., Keeling, G., Khani, F., Khattab, O., Koh, P., Krass, M.S., Krishna, R., Kuditipudi, R., Kumar, A., Ladhak, F., Lee, M., Lee, T., Leskovec, J., Levent, I., Li, X., Li, X., Ma, T., Malik, A., Manning, C.D., Mirchandani, S., Mitchell, E., Munyikwa, Z., Nair, S., Narayan, A., Narayanan, D., Newman, B., Nie, A., Niebles, J., Nilforoshan, H., Nyarko, J.F., Ogut, G., Orr, L.J., Papadimitriou, I., Park, J.S., Piech, C., Portelance, E., Potts, C., Raghunathan, A., Reich, R., Ren, H., Rong, F., Roohani, Y.H., Ruiz, C., Ryan, J., R'e, C., Sadigh, D., Sagawa, S., Santhanam, K., Shih, A., Srinivasan, K.P., Tamkin, A., Taori, R., Thomas, A.W., Tramèr, F., Wang, R.E., Wang, W., Wu, B., Wu, J., Wu, Y., Xie, S.M., Yasunaga, M., You, J., Zaharia, M.A., Zhang, M., Zhang, T., Zhang, X., Zhang, Y., Zheng, L., Zhou, K., & Liang, P. (2021). On the opportunities and risks of foundation models. arXiv preprint arXiv:2108.07258. [Media: Forbes, The Economist]
- 16. **Keeling, G.** (2020). Why trolley problems matter for the ethics of automated vehicles. *Science and Engineering Ethics*, *26*(1), 293-307.
- 17. **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: Meyer, G. & Beiker, S. (Eds). (2019). *Road Vehicle Automation 6* (pp. 49-60). Springer International Publishing.
- 18. **Keeling, G.** (2018). Legal necessity, Pareto efficiency & justified killing in autonomous vehicle collisions. *Ethical Theory and Moral Practice*, 21(2), 413-427.

- 19. **Keeling, G.** Against Leben's Rawlsian collision algorithm for autonomous vehicles. In: Müller, V. (Ed). (2018). *Philosophy and Theory of Artificial Intelligence 2017* (pp. 259-272). Springer International Publishing.
- 20. Keeling, G. (2018). The sensitivity argument against child euthanasia. Journal of Medical Ethics, 44(2), 143-144.
- 21. Keeling, G. (2018). Autonomy, nudging and post-truth politics. Journal of Medical Ethics, 44(10), 721-722.
- 22. **Keeling, G.** (2017). Commentary: Using virtual reality to assess ethical decisions in road traffic scenarios: applicability of value-of-life-based models and influences of time pressure. *Frontiers in Behavioral Neuroscience*, 11, 247-48.

Talks

1. Do Large Language Models Have Credences?

AI and Ethics Workshop, Princeton University, 2024. Institute for Ethics in Technology, Hamburg University of Technology, 2024.

2. The Ethics of Advanced AI Assistants

Being Human in the Age of AI, Institute of Philosophy, 2024.

3. Autonomy, Advice-Giving, and AI Assistants

Autonomy in an AI World, Imperial College London, 2024.

4. Engaging Google Teams Through Moral Imagination, with Amanda McCroskery, Ben Zevenbergen, et al.

Paris Conference on AI & Digital Ethics, 2023.

NeurIPS Workshop on Cultures in AI/AI in Culture, 2022.

5. Panel: Fairness in Machine Learning, with Sam Corbett-Davies and Susan J. Brison.

Neukom Institute for Computational Science, Dartmouth College, 2022.

6. Algorithmic Bias, Generalist Models, and Clinical Medicine

Workshop on the Ethics of Influence, University of Oxford, 2022.

7. The Ethics of Autonomous Vehicles

Philosophy and AI Seminar, Meta, 2022.

Center for Human-Compatible AI, UC Berkeley, 2021.

8. Enabling Fairness in Healthcare through Machine Learning

Stereotyping and Medical AI Colloqium, King's College London, 2021.

9. Digital Manipulation and Mental Integrity, with Christopher Burr.

Workshop on the Philosophy of Online Manipulation, 2021.

10. Proper Functions: Etiology Without Typehood, with Niall Paterson.

British Society for the Philosophy of Science, University of Durham, 2019.

11. Object Classification, Autonomous Vehicles, and the Reasonable Belief Standrd

2nd CEPPA Graduate Conference on Moral and Political Philosophy, University of St Andrews, 2019. Automated Vehicles Symposium, Orlando FL, 2019.

12. Uncertainty About Persons in Autonomous Vehicle Collisions

Automated Vehicles Symposium, San Francisco, CA, 2018.

Service

Organising Committee, Paris Conference on AI & Digital Ethics.	2024-Present
FAccT Program Committee, Association for Computing Machinary.	2018-2019
President, British Postgraduate Philosophical Association.	2018-2019
Executive Committee Member, British Philosophical Association.	2018-2019

Teaching

Ethics, Law, and Politics of Artificial Intelligence, Primary Instructor, Stanford University.	2020-2021
Political Philosophy, Seminar Tutor, University of Bristol.	2019-2020
Research Methods for Social Science, Seminar Tutor and Guest Lecturer, University of Bristol.	2019-2020
Formal Logic, Seminar Tutor, University of Bristol.	2019-2020

Awards

PhD Studentship , Arts and Humanities Research Council, c.a. £55,000.	2017-2020
Awarded through the South, West and Wales Doctoral Training Partnership.	
Andrea Mannu Prize, London School of Economics.	2016
Awarded for joint-best performance across all undergraduate philosophy programs (joint-1st/51).	

Research Students

Lize Alberts, DPhil Candidate in Computer Science, University of Oxford.	2024
I supervised Lize for a 3-month Student Researcher engagement at Google Research.	

Public Policy

Law Commission of England and Wales and Scottish Law Commission.

2021

I consulted for the 2022 joint report on 'Autonomous Vehicles.'

Peer Review

Referee for Nature, Journal of Applied Philosophy, Utilitas, Journal of Ethics, Synthese, Journal of Medical Ethics, Ethics and Information Technology, 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, and Virtual Reality. I have also refereed for ACM FAccT, NeurIPS and AAAI/ACM Conference on AI, Ethics and Society, alongside the MIT Press and the John Templeton Foundation.