



# The State of AI Ethics

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MAIEI



# Founder's Note

Welcome to another edition of the State of AI Ethics report from the team at the Montreal AI Ethics Institute! We've been thrilled with progress in the field this past quarter, especially as we've seen more calls for practical and actionable guidance for practitioners in the field, rather than just abstract, theoretical frameworks for evaluating the societal impacts emerging from the use of AI systems. In particular, we've seen a rise in interdisciplinary approaches to addressing these concerns as you'll observe from the pieces featured in this edition of the report.

We also got an overwhelming response from past readers of the report who wanted to learn more about our staff and community's perspectives on the developments in the field and heeding that call, we've added a new section in the report titled "What we're thinking" that will highlight some of our observations in more detail. We also have a special contribution from a stellar group of scholars who came together to discuss how we can reconceptualize critical race studies borrowing ideas from quantum computing titled "Critical Race Quantum Computer: A Tool for Liberation" that I strongly urge readers to peruse.

We also chose to engage in a more topical analysis of the state of our field by looking through the areas of "AI and Creativity", "AI and Environment", and "Geopolitics and AI" to offer readers an in-depth look at some emergent areas that we believe will be essential in understanding how the field is moving forward in some underexplored areas and what we can expect going forward. We also have our evergreen "Outside the boxes" section with an eclectic mix of topics for those who want to get a broad coverage of areas in the field. Finally, we have featured profiles in our "Community Spotlights" showcasing work from intrepid scholars and activists reshaping our understanding of society and technology in different parts of the world. I hope you enjoy this report and see you in the "Closing Remarks."



**Abhishek Gupta ([@atg\\_abhishek](#))**  
Founder, Director, & Principal Researcher  
Montreal AI Ethics Institute

Abhishek Gupta is the Founder, Director, and Principal Researcher at the Montreal AI Ethics Institute. He is a Machine Learning Engineer at Microsoft, where he serves on the CSE Responsible AI Board. He also serves as the Chair of the Standards Working Group at the Green Software Foundation.

## 7. Community-Nominated Spotlights

**[Editor's Note:** The community-nominated highlights in this section are generous contributions, recommendations, and pointers from the global AI ethics community, with the goal of shedding light on work being done by people from around the world representing a diverse mix of backgrounds and research interests. We're always looking for more nominations, and you can nominate someone for our next report by emailing [support@montreal.ethics.ai](mailto:support@montreal.ethics.ai)]

### **Spotlight #1: Sun Sun Lim (Professor, Singapore University of Technology and Design)**

Arising from my multiple complementary roles as a researcher, educator and advocate, I believe my work helps fill several gaps in AI ethics.

As an academic researcher, my innate curiosity about how people engage with technology has driven my investigations of [technology domestication within the home](#), the workplace and our diverse lived environments. These settings where cultures, values and lifestyles bump up against technological systems are where we can really witness the strengths and limitations of AI, as well as emerging ethical issues. [Surveillance](#) of children by parents, technological intensification of teens' peer pressure, anxieties about [displacement](#) from workplace digitalisation, [fears](#) of automated systems taking over public services – these are all deep-seated concerns that people have shared with me in the course of my research as an ethnographer. I have sought to capture and represent these views through my research so as to give voice to the visceral human concerns that people have about AI, to thereby make it more human-centric.

As an educator therefore, positively shaping the next generation technologist is a principal goal of mine. We need to focus our energies upstream to ensure that our engineers, designers and technologists of the future have a firm grasp of various facets of society that extend well beyond their technical knowledge. To this end, I have actively leveraged my position as Head of Humanities, Arts and Social Sciences in the Singapore University of Technology and Design to better expose our engineering, design and architecture students to disciplines such as history, literature, philosophy, anthropology, sociology, psychology and communication. I believe that a cohesive and well-rounded interdisciplinary STEAM education will nurture technologists who can make AI more empathetic, [ethical](#) and sustainable.

As an advocate, I seek to highlight where we can do more to ensure that policies, provisions and public education can compensate for technological shortfalls and make AI work better for society. I have drawn on my involvement in various committees and in parliament to raise issues

such as governance of the use of big data, priorities in digital literacy education, improvement in data sharing, regulatory overreach in eradicating online falsehoods, support for gender diversity in the technology sector, and digital rights for children. Most recently, I have collaborated with colleagues in academia and social services to push for universal digital access. In a digitalising world, digital access is not a want but a need and must be provided universally to ensure a level playing field for everyone.

Since I was a kid, I've been fascinated by how shiny new gadgets and interfaces lure people, while simultaneously thrilling and frustrating them. From when the telephone company sent someone to set up our land line phone, to the first time I heard the hiss and screech of a dial-up modem, to observing toddlers play with interactive screens in malls, I've always been intrigued by the human-technology relationship. I like technology and I can imagine many marvellous possibilities with it! But as a social scientist, I recognise the risks that come with technology if individual competencies, corporate practices, regulatory regimes and social policies are outpaced by technological transformations. Hence, my research has sought to uncover how people adopt and adapt to technology, while reshaping it in the process. What people do or don't do with technology reveals a lot about our hopes and expectations for ethical AI.

In the wake of the pandemic making us so reliant on technology, along with the unfortunate occurrence of some harrowing natural disasters, I believe there will be more vociferous questioning around the long-term environmental impact of AI on climate change. Separately, the thirst for information about the pandemic and our growing turn towards digital connectivity raise issues about the veracity of information, the robustness of our information landscape, and the role of information gatekeepers. If these are increasingly being managed by machine learning algorithms, how can we ensure that they are acting in society's best interests? Finally, the prolonged pandemic lockdowns have made more young people go online for longer, to do more, and at much younger ages. These trends demand urgent attention to [children's digital rights](#) because their online activity is systematically tracked and the data gathered is being used for a heady variety of commercial purposes. We must act to ensure that children's personal data is processed fairly, lawfully, accurately and securely, for specific purposes and with the free, explicit, informed and unambiguous consent of children and their parents.

I'm always open to collaborations on all of the areas I conduct research on. Currently, I would most like to broaden the global conversation around [universal digital access](#). How can we distil the best practices from efforts in different countries to develop a model for universal digital access that is practicable, replicable and sustainable? How can we create people, private and public sector partnerships that can offer stable and reliable digital access and comprehensive digital literacy education to support the digitally disconnected or underserved? I'm excited to learn more from the diverse and talented community of people connected to the Montreal AI Ethics Institute.



### Sun Sun Lim

Sun Sun Lim is Professor of Communication and Technology and Head of Humanities, Arts and Social Sciences at the Singapore University of Technology and Design. She has extensively researched and published on the social impact of technology, focusing on technology domestication by families, workplace digital disruptions and public perceptions of smart city technologies. She authored *Transcendent Parenting: Raising Children in the Digital Age* (Oxford University Press, 2020) and co-edited *The Oxford Handbook of Mobile Communication and Society* (Oxford University Press, 2020). She serves on the editorial boards of eleven journals and several public bodies including the Social Science Research Council, Singapore Environment Council and Media Literacy Council. From 2018-2020, she was Nominated Member of the 13th Parliament of Singapore. She was named to the inaugural Singapore 100 Women in Tech list in 2020 that recognises women who have contributed significantly to the technology sector. She frequently offers her expert commentary in international outlets including *Nature*, *Scientific American*, *Channel NewsAsia* and *The Straits Times*. She has won eight awards for excellent teaching. See [www.sunsunlim.com](http://www.sunsunlim.com)