

Sasha Luccioni

Researcher in Artificial Intelligence, Climate Lead at HuggingFace

The Planetary Impacts of Artificial Intelligence Climate change is one of the biggest challenges of our time, and AI is one its biggest technological breakthroughs. Today, it is estimated that the global tech sector accounts for somewhere between 2% and 4% of greenhouse-gas emissions; AI's contribution to this figure is largely unknown. In my talk, I will present the different environmental impacts of AI and how they compare for popular AI models like GPT and LaMDA, and ways in which these cutting-edge technologies can be used as a positive force for the climate.

Generative AI: the Good, the Bad and the Bias ChatGPT, Dall-E 2 and other generative AI chatbots have shown incredible prowess at interacting with users and responding to their queries. But as they get deployed in user-facing applications like search and customer-service, keeping their limitations in mind is important. In my talk, I will talk through different use cases of generative AI technologies and showcase both their usefulness and their limitations; I will also present ways forward for developing human-informed, ethical AI technologies and practices.

AI's Potential to Tackle Climate Change Climate change is an important global issue, with major implications for the world's societies and economies. Addressing it requires innovations in a variety of sectors ranging from transportation to finance, agriculture and industry. AI technologies can be powerful tools in many of these sectors, supporting existing efforts and spearheading innovative ones. In my talk, I will present uses of AI in addressing different climate challenges : detecting deforestation, tracking biodiversity, and identifying climate impacts in financial disclosures, and discuss ongoing work that I am pursuing in these directions.